



# **DHARMSINH DESAI UNIVERSITY**

**UNIVERSITY ACCREDITATION**

**SELF - STUDY REPORT**

**(CYCLE - 2)**



**DHARMSINH DESAI UNIVERSITY**

**: Submitted To :**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**P.O.Box No. 1075, Nagarbhavi, Bangalore-560072**

**May-2016**

ये हि संस्पर्शजा भोगा दुःखयोनय एव ते ।

आद्यन्तवन्तः कौन्तेय तेषु रमते बुधः ॥

(भगवद् गीता, अध्याय-५ : श्लोक-२२)

બુદ્ધિમાન મનુષ્ય ઈન્દ્રિયો અને વિષયોના સંબંધથી ઉત્પન્ન થયેલાં સુખોમાં પડતો નથી કારણ કે તે સુખો અવશ્ય બધાં દુઃખોનું કારણ છે. હે કૌન્તેય ! આ સુખો આદિ અને અંતવાળા છે અને તેથી સમજુ પુરુષ તેમાં રાચતો નથી.

**A knowledgeable human being does not get driven of by the happiness obtained from the relation between sense and subjects because that is behind all sorrows, oh son of Kunti such happiness is momentary and comes to an end very soon. Hence an intelligent man does not fall into it.**

## Mission

The university shall undertake programmes and projects for development of human resources, both through formal and non formal delivery systems, in areas of professional pursuits in all walks of human endeavours, with accent on relevance, value addition, societal needs and futuristic pilot projects.

## Vision

- To become a multi-disciplined & learner oriented University.
- To closely associate with & be responsive to Industry.
- To create supportive & caring environment for staff & students
- To improve R & D activities in areas of national priority.

## Quality Policy

The university is for persons who wish to advance in the workplace and emerge as competent professionals & noble citizens. The University meets these needs by delivering applied & professional programs, primarily at the graduate & higher level, that anticipate & respond to the changing world & global economy. We are committed to the higher level of quality, teaching excellence & applied research that pursues solutions to real world problems

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## PREFACE

It is my great pleasure to submit Self-Study Report of Dharmsinh Desai University (DDU) to National Assessment and Accreditation Council (NAAC), Bangalore for Re-accreditation (Cycle-2) for further sustainable improvement of quality teaching, learning and overall development of the University.

We are highly indebted to NAAC Peer Team for visiting and examining DDU system, for our first accreditation and assessment in the year 2010. This Self-Study Report for re-accreditation is the result of the sincere efforts made by all the faculty members to collect and quantify data as per NAAC requirement. The reaccreditation process began by nominating a team of faculty members as Central Core Committee who were involved in various activities of the university and to work as co-ordinators. As they had to work along with four different faculties (Faculty of Technology, Faculty of Management & information Science, Faculty of Pharmacy, Faculty of Dental Science), they were chosen based on their interpersonal skills and ability to complete the work effectively through various subteams in a specified time frame.

NAAC evaluation process prepared us to achieve greater heights in all areas of education. We have tried our level best to implement the suggestions given by the NAAC Peer Team. Their fruitful suggestions have helped us to overcome the reported shortcomings. It is a matter of great satisfaction that the teaching, non-teaching staff, students and the administration have been working as a team with an excellent level of understanding which will certainly prove beneficial for DDU to grow from strength to strength in its quest for excellence. DDU has done a remarkable job in the field of infrastructure, research and overall development of the students committed to societal needs.

A steering committee was formed from various faculties of University who looked into criterion wise inputs and department evaluative reports. The steering committee members were supported by top management authorities. The entire work was planned and subsequently after number of meetings, presentations, mock assessment, SWOC analysis and draft of Self-Study Report was prepared.

Full-fledged Internal Quality Assurance Cell (IQAC) at the University shall also stand in good stead for the reaccreditation and assessment process of NAAC. The formal and informal feedback we receive from students, alumni, parents, educationists, IQAC, Local Managing Committee and industry experts helps us in our move towards achieving excellence. Overall, the exercise of preparing the Self-Study Report for NAAC has been a rewarding experience.

Total ten suggestions/recommendations by NAAC peer team were made and we fulfilled all of them. Considering NAAC Peer Team quality improvement suggestions we have implemented Choice Based Credit System (CBCS) from this academic year, established central library for the University with adequate numbers of books and learning resources, implemented solid waste management system, encouraged faculty members to pursue higher studies and to take research projects as a result of which there has been substantial increase in number of faculty members with Ph.D. and number of research grants from UGC, DST, GUJCOST and Industry.

Quality assurance is a participative and systematic process. We at DDU, always look at our strengths, weakness, opportunities and threats objectively. We have worked constantly on quality assurance over last five years with different stake holders - the students, faculty,

academia, industry, alumni and the society at large. University top management, faculty and staff members, IQAC coordinators have played important roles in promoting quality. We look forward for stimulating exchange of ideas with the team of experts from NAAC in the near future.

Our present Self-Study Report is a culmination of our efforts towards this end and we look forward to a rewarding interaction with the NAAC Peer Team to re-accredit our institution.

In compliance with necessary requirements for the reaccreditation of NAAC assessment, on behalf of DDU, I would like to invite NAAC Peer Team to reassess our University activities and give us their suggestions towards further improvements to impart quality education to future generation of society.

Date: 01-05-2016

Dr. H. M. Desai  
(Vice-Chancellor)

# EXECUTIVE SUMMARY





Dharmsinh Desai University (DDU) is a leading University in this region, recognized as Institute of National Importance by AICTE (MHRD). University has a Guinness Book of World Record for Social Work (Highest Eyes Pledges). Awarded as Best Regional University of Asia by Oxford UK. DDU recognized among the best 100 Universities of Asia, award by WCRC. This is the only University recognized by National Science Foundation (NSF) USA for its R & D in Nano Sciences in India

Late Shri. Dharmsinh Desai (MP) founded DDIT (Dharmsinh Desai Institute of Technology- as it was known then) in 1968 at Nadiad, with a view of providing education in Engineering and Technology to the youth of Gujarat. In the initial years, the institute offered only Diploma in Chemical Engineering, but gradually expanded its resources to include other branches.

The institute, in recognition of its commendable standards of academic administration, was granted autonomy on 15<sup>th</sup> June 1991 and became the first ever college in Gujarat to have been granted such a status. In 2000 it achieved deemed university status and in 2005 achieved full university status. In its four decades of existence, DDU has earned a name for itself as the place of quality education in Engineering, Management, Commerce, Pharmacy and Dental Science. Its alumni are well placed both in India as well as abroad.

DDU's Vision is to become a multi-disciplined & 'learner oriented' university to closely associate with & be responsive to the Industry, to create supportive & caring environment for staff & students and to engage in R & D activities in areas of national priority.

DDU's Mission is to undertake programs and projects for development of human resources, both through formal and non-formal delivery systems, in areas of professional pursuits in all walks of human endeavors, with accent on relevance, value addition, societal needs and futuristic pilot projects.

DDU has ISO 9001:2008 certification since past fifteen years. It is noteworthy that its Faculty of Technology is the only grant-in-aid institution in the state to receive World Bank Assistance of INR 25 crores. The NBA-AICTE has also granted Accreditation to the B.Tech. Programmes of the University. DDU also has linked up with the University of IOWA, USA to offer a five year joint B.Tech.+M.S programme. DDU has Memorandum of Understanding with KHS Germany and to effect the final semester engineering students undertake their four months long Industry Project at KHS in Germany.

DDU has the distinction of following its academic schedule very religiously and all the activities are planned meticulously. It is so thorough that a new student entering DDU in July 2009 will know the exact date on which he will be awarded the degree in May 2013. Dates for all the term teaching phases, three Sessional exams of each term, block tests, practical examinations, remedial examinations, declaration of results and vacations are known to the students at the beginning of the academic year. The Laboratories of the Faculty of Technology and Faculty of Pharmacy are well equipped with latest equipment. Faculty of Dental Science has state of the art OPD facilities and offer world class treatment at charitable rates.

All the students of Faculty of Technology undertake the full time Industry based project training in their final semester of the programme which enables them for employment through campus interviews much before course completion. Yoga-Meditation & Self Development

courses are taught and are an integral part of the curriculum. The academic environment at the University is totally free from ragging, drugs, and tobacco in any form. DDU is known for its discipline and the classes are sacrosanct.

The Industries Commissionerate, Government of Gujarat has given a grant of Rs. 10 crore to DDU and naming it as Anchor Institute to provide manpower training programs in the Chemicals & Petrochemicals Sector for the state of Gujarat. The Gujarat Council for Science and Technology (GUJCOST) has declared the Department of Chemical Engineering as a Centre of Excellence and given a grant of Rs. 28.5 lakhs for research on Nano catalysis.

DDU has a R&D Centre since 1998 and its main objective is to carry out research activity in the cutting edge area of Electronics, Information & Technology and Computer Science. R & D Center has taken up national level projects from pioneer institutes like National Crime Record Bureau (NCRB), Institute of Plasma Research (IPR), Oil and Natural Gas Corporation (ONGC) Limited, HiRel Reliance Limited, Gujarat Samachar, Muljibhai Patel Urology Hospital (MPUH), Forensic Laboratory and many others. It has the distinction of developing a Portrait Building System which is successfully used at every District Police Head Quarters in the Country to arrest criminals. Following are the projects handled by R & D Center:

- Color Portrait Building System for National Crime Record Bureau.
- Underground oil reservoir mapping for Oil and Natural Gas Corporation Limited.
- Experimenting with Oscillation modes and PC Based Data Acquisition System for IPR.
- Loom Data System-ORACLE-PLC-MODBUS- $\mu$ P Data Unit (for HiRel-Reliance)
- Opinion Poll System for Muljibhai Patel Urology Hospital
- Skull image to face identification system for Forensic Laboratory, Ahmedabad
- Human Face Classification.
- Intelligent Robot for Security.
- Information Embedding in Image

DDU has established The Shah-Schulman Centre for Surface Science and Nanotechnology with the help of a grant of Rs. 3.5 crores from Government of Gujarat. This centre is headed by a world known scientist, Dr. Dinesh O. Shah of University of Florida, who has to has credit 7 books, 6 patents, and has over 250 research papers in referred journals, monographs and books. This centre is one of its kinds in the country and is doing pioneering work in association with the Industries and Academia. It is currently headed by Dr Tulsi Mukherjee an eminent scientist.

The faculties of the University received various prestigious awards from Government organization like Fulbright Scholarship, young scientist awards under Young Scientist Fast-Track Scheme, best teacher award by ISTE, DDU Alumni section etc.

Besides imparting formal education, the University also conducts the continuing education programmes not only for the professionals but also for the under-privileged sections of the society. Every year, a month long programme on Computer Awareness is conducted for rural women of this region. DDU also offers programmes for people from poor sections of the society (including computer education and use of TALLY) without any discrimination. The University also organizes a blood donation camp in every semester, & the invariably, highest numbers of blood bottles are contributed by our students to the Red-Cross Society in this region. Faculty of Dental Science has contributed immensely in the nearby areas in the area of

oral hygiene. The OPD has more than 300 patients a day and its camps in the remote villages have given smile to a number of people.

Training & Placement is vital for any Educational Institute and DDU has a good track record in this area. We have a large number of repeat companies in campus placements and this indicates their faith in the ability of our students.

DDU has a library for all its faculties namely Faculty of Technology, Faculty of Dental Science, Faculty of Pharmacy and Faculty of Management & Information Science. It has facility of computer search for various titles and also has facility for access of e-version of various international journals.

A subsidized canteen offers very healthy food for the students and staff of the University. It offers various types of snacks (South Indian, Chinese, Gujarati & Punjabi cuisine), Cold Drinks, Ice Cream, and popular fast food items at very reasonable rates.

DDU has a very strong Alumni Association (DDU Alumni Association - DDUAA) formerly, **DDIT Alumni Association (DDITAA)** and it was established in August, 1993, with its headquarters at the DDU having chapters at Ahmedabad, Ankleshwar, Vadodara and Dallas (USA). It has membership strength of about 4310. The association is proud of its members, as most of them have excelled in their respective fields. DDUAA has organized and conducted more than 125 seminars, lectures and workshops at various places like Ahmedabad, Baroda, Ankleshwar and Nadiad.

**The main objectives of the association are:**

- To establish and maintain contact among past students, present students and the teaching staff of DDU.
- To raise and maintain high standards of education by interaction & commerce.
- To establish interaction with industry for the benefit of students.
- To extend financial assistance to the deserving present and past students of the University for academic purposes.

**The Current activities of the association include:**

- Organizing Seminars / Workshops Addressing Current Issues,
- Providing travel assistance to students for participating in academic activities anywhere in India.
- Providing financial support in the form of Merit cum Means Scholarships.
- Awarding prizes to rank holding students.
- Assisting in arranging campus interviews, placements and industrial training.

## **CURRICULAR ASPECTS**

### **Curriculum Design and Development**

- The university has systemic process of curriculum design and development. It has feedback mechanism where both internal and external stakeholders take part. In all faculties of university, the faculty members deliberate in their group meetings over the suggestions received from various stakeholders. These are discussed and recommended at meeting of the respective board of studies. These recommendations are further discussed at the academic council meetings and finally approved.
- The university follows the mandate of regulatory bodies like AICTE, PCI, DCI, UGC etc., for the development and/or restructuring the curriculum. At the same time, the curriculum of the various programmes is benchmarked against leading national institutes.

### **Curriculum Enrichment**

- The curricula of the university across subject and specialization emphasize on global trends, emerging technologies, ethics, social values, self-development and relevant industry practices. Overall, the curriculum structure, consist of fundamental subjects, core subjects, enrichment subjects, elective subjects and advanced subjects. All this subjects put together, fulfill the needs of industry and the society.
- University offers value added and socially relevant courses. Some such courses are part of the regular curriculum. Example of value added/enrichment course offered by university are: Yoga, Self-Development, Communication Skills, Ethics and Values etc. In addition, ICT is an integral part of the curricula of all programmes. Choice Based Credit System (CBCS) will be implemented from academic year 2016-2017 at undergraduate level.

### **Feedback on Curriculum**

- The faculties/department is in regular interaction with all the stockholders, including industry experts and senior academicians for feedback of the various programmes, regarding the content of the curriculum, emerging area, electives, updating laboratory work, exposure to industrial practices, communication skills, etc. wherever necessary, students are also associated with these efforts.
- Reviewing and updating the curriculum is a continuous process. Accordingly all under graduate and post graduate programmes have been revised in last three year.

## **TEACHING-LEARNING AND EVALUATION**

### **Student Enrolment and Profile**

- In the matter of admissions, DDU has to follow the Centralized Admission Process at state level. The Central Committee follows the Government of Gujarat rules for admission into the various programs. The Joint Admission Committee of Gujarat State ensures transparency through publishing of admission brochure giving details of eligibility criteria, admission criteria, and number of seats, and scholarships that are available.

### **Catering to Student Diversity**

- As a regular feature of University, each faculty organizes the orientation programs for the fresher. The duration of orientation programs is usually of one day. The learning needs of the advanced learners are addressed by providing them facilities and avenues for enriching their research and professional skills. For the slow learner remedial classes and mentoring system for the overall development.
- The university undertakes IEDC projects and research assignments in consultation with industries. The advanced learners have opportunity to work with R&D department of University, which undertakes advanced projects funded by GUJCOST, DST, PRL etc.

### **Teaching-Learning Process**

- The university notifies its academic calendar every year. The focus at DDU is on both teaching and training of students for overall development.
- All PG and UG programs (100%) have made project work/dissertation a compulsory requirement in their course curriculum. Further, the project work/dissertation is undertaken in collaboration with industries, non-governmental organizations and civil society organizations depending on the nature of course.

### **Teacher Quality**

- The faculty members are an integral part of any changes in curriculum and accordingly, they attend to the need of updating the knowledge about the course design and curriculum development. The faculty members are allowed and encouraged to undertake Orientation and Refresher courses to update their knowledge and skills.

### **Evaluation Process and Reforms**

- The details of policies and changes in the process of examination and evaluation are well notified and placed on the university website. The administrative department facilitate in the dissemination of such information among the students.
- During the orientation programme, the evaluation process is explained in details to the students and the parents. The semester end exam results are declared within one month of examination and as a norm the semester end results are declared before the commencement of the new semesters. The results of midterm examinations are declared with a week.

### **RESEARCH, CONSULTANCY AND EXTENSION**

- In the University, research activities are monitored by Board of Research Studies (BoRS). The BoRS has framed well defined 'Research Policy' to provide guidelines for all research activities.
- The University encourages research through:
  - Offering PG/Doctoral programmes
  - Established Research Centre in different emerging areas, mainly, Shah Schulman Centre for Surface Science and Nanotechnology (SSCSSNT) and Research & Development Centre.

- Promoting interdisciplinary projects
- Organizing national/international conferences, seminars and workshops
- Promoting training and consultancy through attractive incentives to the faculty members
- Allow faculty members to join doctoral studies either under QIP Scheme or In house programme
- Collaborations with reputed research organizations/Industries to boost up research activities.
- As far as doctoral programme are concerned, 32 research scholars have been awarded Ph.D. degrees in different disciplines of engineering, management and pharmacy.
- In last five years, Faculty members handled 53 major/minor projects, worth of Rs. 594 lacs sponsored by either government agencies or industrial sector.
- Faculty members of University generated more than Rs.520 lacs by providing consultancy and training to various industries in last five years.
- More than 300 research articles published in reputed national/international journals. Faculty members also presented more than 200 research papers at various national/international conferences and seminars. Apart from these, 11 books, 9 book chapters and one patent filed during the assessment period.
- University provides abundant opportunities and encourages students to bring out their potential in extra and co-curricular activities through regular courses, project work and establishing various student groups/clubs/chapters. Students of Faculty of Dental Science regularly conducts free dental check-up camps in Nadiad city, surrounding villages and schools as a part of service to the society.
- University emphasizes on collaboration with Industrial sector and reputed institutions in the form of MoUs, joint research projects, consultancy, provide training to industrial man powers, expert lectures delivered by industrial experts, students' projects, faculty sharing, training and students placement.

## **INFRASTRUCTURE AND LEARNING RESOURCES**

### **Physical facilities**

- The University has a sprawling 36 acres of beautifully landscaped campus with lush green surroundings and aesthetic architecture of buildings.
- There are separate buildings with wide open spaces in between planned for each faculty. Apart from these, there is a separate University office, faculty wise libraries, a gymnasium, hostels (separate for boys and girls), canteens etc.
- Each Faculty on the campus has independent infrastructure with the ICT enabled classrooms. State-of-the-art laboratories, air-conditioned auditoriums / seminar halls, conference rooms, computer centers etc.
- The classrooms and other facilities of the faculty of Dental and the faculty of Pharmacy are air conditioned and equipped with all modern teaching aids.
- The University has two Auditoriums and Seminar Halls with air-conditioned and morden audio visual facilities. Each faculty has an open air Common foyer.
- Well-furnished hostels with 24X7 internet facility, with capacities of 423 male and 100 female students are available. The University has two food courts in hostel premises and a Canteen.

- The University has made arrangements to provide medical facilities on the campus by appointing a full time Doctor, who is available from 9:00 a.m. to 4:00 p.m. on the Faculty of Dental Science campus.
- The University provides travel facilities to its students and the staff members. The University buses covering all areas of Ahmedabad and Vadodara.
- Large playgrounds for outdoor games. Sports hall for indoor games and a Common foyer with lawn are also available on the campus. For uninterrupted power supply, diesel generator sets with a total 250 KVA capacity is also available.
- A separate Estate Department under the supervision of Civil Engineering Dept. looks after all the maintenance problems of buildings and facilities. For maintaining computers & associated facilities and trouble shooting, a computer engineering department is always available as well as outside experts are called on per call basis. Round the clock security is provided on the campus.
- Library Facilities:
  - Each faculty has its own Library Resource Centre. The total library print collection includes 54,612 books, 7712 Back Volumes and 718 theses. etc.
  - The library is a member of DELNET. ACM digital library, Science direct, Wiley on line library etc.
  - In all libraries, an open source web-based Library Management System ‘SOUL’ is implemented.

### **IT Facilities**

- Processes from admission to alumni connect, teaching-learning to library resource management are all done through ICT tools. All faculties have their own computing facilities. All are interconnected by fibre optic cables and 50 Mbps leased line Internet connectivity. The entire University campus. Including the hostels, is equipped with internet facility.
- The University has procured various licensed software tools to meet curriculum requirements.
- All the faculty members are provided with a computer having internet connection.

## **STUDENT SUPPORT AND PROGRESSION**

### **Student Support and Progression**

- There are total 4374 students in the university in the current year. Out of the total 1118 students enrolled for the year 2015-2016, 111 are from SC/ST and 239 are from Other Backward Classes.
- 696 students have been benefitted through Government and non-government scholarship last year.
- The university provides excellent platform for training and placement. Placement Cell is set up to facilitate campus recruitment and career guidance. 204 companies visited last year and selected 398 students for placement.
- More than 610 students have qualified in GATE/NET and other competitive exams in last five years (2010-2015).
- Innovation and Entrepreneurship Development Center (IEDC) funded by DST is actively working to provide training and financial assistance for Entrepreneurship

development of students. It provides seed fund for innovative project of the students every year

- Coaching classes are conducted for the preparation of examinations like GATE and GPAT at the University on regular basis to benefit the students for further studies and career development
- The university is committed to zero tolerance towards sexual harassment. There is an Internal Complaint Committee (ICC) to address issues related to sexual harassment. The university has set up a Women's Cell for gender sensitization and awareness among female staff & students
- The Alumni Associations of the University is actively contributing to the development of the university since more than two decades. Alumni meet at the departmental and faculty level are also organised on regular basis which contributes in academic and welfare activities.
- DDU have a ragging free campus. The university is a benchmark for disciplined and safe atmosphere, focusing quality education
- Students are encouraged for involvement in Extra Curricular and Co-curricular activities on regular basis. They are provided with a platform for such events like Technical and cultural competitions, social initiatives and extramural activities at university and national level.
- Sports and Cultural activities are planned and celebrated on regular basis. The extracurricular and cultural activities are celebrated in the month of March every year under the banner of Felicific. Various cultural and technical events are carried out both at the department level and central level. Students from other universities also participate in the events. University sports day is also celebrated every year where students participate in various sports. Students also participate in the external sports events organized by other universities/organizations
- The university is committed socially to give something to the society. The university has adapted a village towards its social responsibility. Other extension activities like Blood donation camps are regularly done with the active involvement of students

## **GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **Institutional Vision and Leadership**

Dharmsinh Desai University has well defined Vision and Mission statement. DDU conducts meetings with its stakeholders and take their inputs towards improvements in the academic systems, administrative systems. Following meetings are conducted regularly:

- Head of the department meets with faculties and staff members regularly in departmental meeting. Any major decision is taken by concern of all the faculty members
- Every department is having student counsellors and students easily approach them for any difficulty
- Board of Studies and Academic Council meeting is held every six months.
- Respective deans of faculty meets regularly with heads of department
- Alumni meet is held yearly and they provide fellowship for travel grants to students, hence alumni are also interacting with students.



All the processes at the University are compliant to ISO: 9001-2008 and are subject to internal and external audits which leads to a culture of excellence.

### **Contributing to national development**

- The university converts the human resources into human capital by the development of skilled manpower in different fields by proper training and education along with developing work values. It not only makes people mobile but provides job opportunities in different places and areas thereby serving society at large. A large number of our alumnae are industrialists, entrepreneurs, top management positions and have significantly contributed to the National Development.
- Environment Audit Cell of DDU has been approved as a Schedule-A Auditor by Government of Gujarat and is involved in carrying out environment audit of all major industries in Gujarat.
- Department of Chemical Engineering is the Anchor Institute of Chemical and Petrochemicals, looking at the expertise it has.
- DDU has adopted Village in the vicinity of Nadiad and taking care of their social, Medical and Dental needs.
- Faculty of dental science has established of Dr. H. M. Desai Oral Cancer Centre for the state of art treatment of Oral cancer patients free of cost.
- The institution actively participates in Dental and medical Camps. Frequently, Dental camps are arranged for promoting community service. Every year approximately more than 100 Dental Camps have been organized.
- DDU conducts blood donation camp periodically.

### **Strategy Development and Deployment**

- DDU has Faculty of Engineering, Faculty of dental science, Faculty of Pharmacy and Faculty of management. All faculties enjoy responsible autonomy in terms of academic calendar, requirement of funds, research and extension activities and also maintain accountability under the guidance of Vice Chancellor and Deans of the faculty.
- Departments update the syllabus or make innovations in teaching pedagogy, which is guided and monitored by the concerned Board of Studies and the Academic Council.
- Through Industrial live project at UG, PG level and internships, DDU proposes to do community driven projects and serve the society as well as industry.
- R & D Centre of DDU has contributed in development of security software for crime branch and scientists of R& D department are closely working with research organization like PRL, ISRO and IPR.

### **Faculty Empowerment Strategies**

- The University appraises performance of teaching staff by way of an elaborate appraisal System. This appraisal form has three sections and one of them is self-appraisal & filled up by the faculty member. The self-assessment report is one of the important yardstick used for the promotion of the faculty.
- Faculty is given various opportunities to take part in developmental activities like Conferences, Seminars etc. at national & International levels. These are funded by the University.
- The teaching and non-teaching staff are provided training program through conduction of regular workshops, seminars and conferences.

## **Financial Management and Resource Mobilization**

- The financial implications in all the processes of the University are monitored by an efficient and reliable accounting system. The accounts are maintained and audited on concurrent basis by an internal auditor who is chartered accountant.
- The Finance Committee is empowered as an authority to look after the Finance and Accounts of the University. It examines the annual accounts and annual budget estimates of the university and recommends to the Board of Governors. It also reviews the financial position of the university from time to time. FC also makes recommendations to the Board of Governors on all proposals involving raising of funds, receipts and expenditures

## **Internal Quality Assurance System**

The university quality system is made operational under the IQAC of various departments and Individual Faculties. The approach taken is bottom up where quality parameters are suggested by faculty members and then implemented by the department and university, thus, bringing a sense of ownership in quality enhancement. Quality enhancement initiatives like conducting seminars and training program are facilitated by the IQAC. Each faculty and consequently each department is advised to conduct its own academic activities, which brings synergic approach for development of university.

## **INNOVATIONS AND BEST PRACTICES**

DDU has lush Green, Tobacco free and ragging free campus conducive for learning. Every year the environment department does green audit. The campus is in semi urban area and having natural green environment. The University is blessed with very fertile soil and the long-standing plantation drive has yielded such rich fruits that the Campus is the envy of many, in respect of the greenery. This has led to the balancing of any carbon gases generation with absorption of CO<sub>2</sub> within the Campus itself.

For reducing the carbon footprint, several initiatives have been taken. These include:

- Layout design of the campus, which eliminates the use of vehicles wherever possible, so that pollution is eliminated at source itself.
- Reduction in use of papers, and reliance on substitute or alternate electronic systems like email, cloud/web-based services to eliminate or reduce the use of paper by staff and students alike. For instance, even in office, the salary slips are being issued electronically and sent by email rather than paper-based salary slips issued earlier. This is just one instance.

The University has many best practices starting from teaching learning, research, collaboration, Industry Academic linkages and PPP model etc. specifically best two practices are elaborated in detail in Criterion 7, are as under.

- Due to a proper system of administration of the examination control, there has been no leakage of any question paper in the entire history of the University, thereby providing an assurance to all the stakeholders – students, parents and industry – about the integrity of the University and its students.

- Industry-Academy Linkage, helping the University in moving to the Outcome-based Learning process.



# UNIVERSITY PROFILE



## PROFILE OF THE UNIVERSITY

### 1 Name and address of the university

Dharmsinh Desai University,  
College Road, Nadiad-387 001  
Gujarat, India.

### 2 For communication

Name	STD code	Tel. number	Mobile number	Fax number	E-mail Id
Vice-chancellor: <b>Dr. H. M. Desai</b>	0268	2520502 (O) 2521007 (R)	09879554141	2520501	vc@ddu.ac.in
Registrar <b>Prof. Rajnikant Jain</b>	0268	2520502	09725824746	2520501	registrar@ddu.ac.in
Steering Committee / IQAC Coordinator: <b>Dr. Naresh K Patel</b>	0268 079	2520502 (O) 27663665 (R)	09426699665	2520501	hod.mba@ddu.ac.in

### 3 Status of the University

State University	√
Central University	
University under Section 3 of UGC	
Private University	
Institution of National Importance, Any other (specify)	
Any other (specify)	

### 4 Type of University

Unitary	√
Affiliating	

### 5 Source of funding

Central Government	√
State Government	√
Self-financing	√
Any other (please specify)	

**6 Date of establishment of the University**

	<b>Date</b>	<b>Month</b>	<b>Year</b>
Original (prior to establishment as a university) As Affiliated College	01	01	1968
Autonomous College	15	06	1991
As a university: (Deemed University)	02	06	2000
State University-present status	12	04	2005

**7 Date of recognition as a university by UGC or any other national agency**

<b>Under Section</b>	<b>Date, Month &amp; Year (dd-mm-yyyy)</b>	<b>Remarks (If any)</b>
i. 2f	11-04-2005	From 02/06/2000 to 11-04-2005 Deemed University.
ii. 12B	21-04-2011	-
iii.3 of UGC	02-06-2000	-
iv. Any other (specify)	-	-
Does the university have a satellite campus?		<b>No</b>

**8 Has the university been recognized?**

(a) By UGC as a University with Potential for Excellence?

Yes		No	√
-----	--	----	---

(b) For its performance by any other governmental agency?

Yes	√	No		
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If yes,

(i)	Name of the Agency	ISO QAR	NBA
(ii)	Date of recognition	Since 01/07/2002	1998, Reaccredited 2008

**9 Does the university have off-campus centres?**

Yes		No	√
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**10 Does the university have off-shore campuses?**

Yes		No	√
-----	--	----	---



## 11 Location of the campus and area

		Location *	Campus area in acres	Built up area in sq. mts
i	Main campus area	Semi-Urban	42	157065.88
ii	Other campuses in the country	-	-	-
iii	Campuses abroad	-	-	-

(\* Urban, Semi-Urban, Rural, Tribal, Hilly Area, Any other (please specify))

If the university has more than one campus, it may submit a consolidated self-study report reflecting the activities of all the campuses.

## 12 Provide information on the following: In case of multi-campus University, please provide campus-wise information.

(a)	Auditorium/seminar complex with infrastructural facilities			3
(b)	Sports facilities			
	*	playground		1
	*	swimming pool		-
	*	gymnasium		1
	*	Any other (please specify)		-
(c)	Hostel			
	*	Boys' hostel		
		i	Number of hostels	1
		ii	Number of inmates	423
		iii	Facilities	-
	*	Girls' hostel		
		i	Number of hostels	1
		ii	Number of inmates	100
		iii	Facilities	-
	*	Working women's hostel		0
		i	Number of hostels	-
		ii	Number of inmates	-
		iii	Facilities	-
(d)	Residential facilities for faculty and non-teaching			-
(e)	Cafeteria			3
(f)	Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.			1
(g)	Facilities like banking, post office, book shops, etc.			-
(h)	Transport facilities to cater to the needs of the students and staff			Yes
(i)	Facilities for persons with disabilities			Yes
(j)	Animal house			1
(k)	Incinerator for laboratories			Yes
(l)	Power house			Yes
(m)	Waste management facility			Yes

## 13 Number of institutions affiliated to the university

Not Applicable

- 14 Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University.

Yes		No	√	Number	
-----	--	----	---	--------	--

- 15 Furnish the following information

Particulars		Number	Number of Students
(a)	University Departments (Programme)		
	Diploma	1	122
	Undergraduate	10	3466
	Post Graduate	18	717
	Research centres on the campus	4	69
(b)	Constituent colleges	1	1299
(c)	Affiliated colleges	Not Applicable	
(d)	Colleges under 2(f)	-	-
(e)	Colleges under 2(f) and 12B	1	-
(f)	NAAC accredited colleges	Not Applicable	-
(g)	Colleges with Potential for Excellence (UGC)	-	-
(h)	Autonomous colleges	-	-
(i)	Colleges with Postgraduate Departments	-	-
(j)	Colleges with Research Departments	-	-
(k)	University recognized Research Institutes/Centres	7	45

- 16 Does the university conform to the specification of Degrees as enlisted by the UGC? If the university uses any other nomenclatures, please specify.

Yes	√	No	
-----	---	----	--

- 17 Academic programmes offered by the university departments at present, under the following categories: (Enclose the list of academic programmes offered)

Programmes	Number
UG	10
PG	18
Integrated Masters	-
M.Phil.	-
Ph.D.	4
Integrated Ph.D.	-
Certificate	-
Diploma	1
PG Diploma	-
Any other (please specify)	-
<b>Total</b>	<b>33</b>

**18 Number of working days during the last academic year.**

240

**19 Number of teaching days during the past four academic years.**

(‘Teaching days’ means days on which classes were engaged. Examination days are not to be included)

2011-2012	180	2012-2013	180	2013-2014	180	2014-2015	180
-----------	-----	-----------	-----	-----------	-----	-----------	-----

**20 Does the university have a department of Teacher Education?**

Yes		No	√
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**21 Does the university have a teaching department of Physical Education?**

Yes		No	√
-----	--	----	---

**22 In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?**

Yes	√	No	
-----	---	----	--

**23 Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.**

The Board of Governors review the progress of the University regularly and also audited by State Government audit.

**24 Number of positions in the university**

Positions	Teaching faculty			Non-teaching staff	Technical staff
	Professors	Associate Professors	Assistant Professors		
Sanctioned by the UGC / University/State Government	49	54	201	35	43
Recruited	33	37	202	29	40
Yet to recruit	16	17	-	6	3
Number of persons working on contract basis			17	84	0

**25 Qualifications of the teaching staff**

Highest Qualification	Professors		Associate Professors		Assistant Professors		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	14	1	14	0	7	2	38
M.Phil.	0	0	0	0	1	2	03
PG	12	6	18	5	99	39	179
UG	0	0	0	0	31	21	52
<b>Temporary teachers</b>							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0
UG	0	0	0	0	13	4	17

**26 Emeritus, Adjunct and Visiting Professors.**

	Emeritus	Adjunct	Visiting
<b>Numbers</b>	1	2	68

**27 Chairs instituted by the university**

	Chairs
School / Department	-

**28 Students enrolled in the university departments during the current academic year, with the following details:**

Students	UG		PG		Ph.D		Diploma	
	M	F	M	F	M	F	M	F
From the state where the university is located	2437	979	517	196	51	18	81	21
From other states of India	7	3	2	2	0	0	0	0
NRI students	49	11	0	0	0	0	0	0
Foreign students	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2493</b>	<b>993</b>	<b>519</b>	<b>198</b>	<b>51</b>	<b>18</b>	<b>81</b>	<b>21</b>

**M - Male , F - Female**

**29 'Unit cost' of education**

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component = Rs. 139528

(b) excluding the salary component = Rs. 74750

**30 Academic Staff College**

Not Applicable

**31 Does the university offer Distance Education Programmes (DEP)?**

Yes		No	√
-----	--	----	---

**32 Does the university have a provision for external registration of students?**

Yes	√	No	√
-----	---	----	---

Ph.D. Program have provision for External registration of students.

**33 Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.**

Accreditation – Cycle 2

**34 Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)**

Date of Accreditation: January 08, 2011

**Accreditation Result:** Grade: B

CGPA: 2.71 on four point scale.

Certificate enclosed in **Annexure D**

**35 Does the university provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent / autonomous colleges under the university.**

Not Applicable

**36 Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).**

IQAC	Date of establishment of IQAC: 07/04/2010
AQAR	AQAR For the year 2011-12 (27/09/2012)
	AQAR For the year 2012-13 (08/10/2013)
	AQAR For the year 2013-14 (21/03/2015)
	AQAR For the year 2014-15 (09/03/2016)

**37 Any other relevant data, the university would like to include (not exceeding one page).**

- Green, Tobacco free, ragging free campus conducive for learning.
- University recognized as a Centre for Start-up by Government of Gujarat.
- DDU recognized as a leading University in this region, recognized as Institute of National Importance by AICTE (MHRD).
- University have a Guinness Book of World Record for Social Work (Highest Eyes Pledges).
- Awarded as Best Regional University (Asia) by Oxford UK.
- DDU recognized among the best 100 Universities of Asia, award by WCRC.
- DDU recognized by NSF (National Science Foundation) USA for its R & D in Nano Sciences.
- Value added courses like Yoga, Stress Management and Personality Development offered as a part of Curriculum.
- State of the art Shah-Schulman Centre for Surface Science and Nano Technology, Research Centre established with latest instruments. Unique PPP model supported by More than 10 Industry partners and State Government
- Research & Development department doing cutting edge research in the area of Electronics and Space Science.
- Anchor Institute for Chemicals and Petrochemicals sector in Gujarat State.
- Centre of Excellence in Automation Technologies established in collaboration with BOSCH-REXORTH, Germany.
- Latest laboratories in Dental Science, Pharmacy and Engineering departments
- Master's and Doctoral program in all the faculties.
- Oral Cancer Research Center established in Dental Science
- Fee regulatory committee of Government of Gujarat has ranked DDU programs like B.Tech., B. Pharm, M. Tech, M. Pharm, MBA, and MCA, has ranked institute in 'A' Category.
- Strong Industry-Academia relationship in teaching learning process. Final Year B.Tech./B.Pharm. have one full semester Industrial Training as a part of Curriculum.
- DDU stand among top 3 choices by student and parents for admission in the State.
- Excellent placements records.

## ANNEXURE A

23236351, 23232701, 23237721, 23234116  
23235733, 23232317, 23236735, 23239437

UGC website-www.ugc.ac.in



ज्ञान-विज्ञान विमुक्तये

No. F.9-8/2005 (CPP-I)

### **NOTIFICATION**

विश्वविद्यालय अनुदान आयोग

बहादुरशाह जफर मार्ग

नई दिल्ली-110 002

UNIVERSITY GRANTS COMMISSION  
BAHADURSHAH ZAFAR MARG  
NEW DELHI-110 002

May, 2005

- 6 JUN 2005

Dharam Singh Desai Institute of Technology, Nadiad which was conferred deemed to be University status by Government of India Ministry of Human Resource Development vide its letter No. 9-6/97-U.3 dated 2.06.2000 under Section-3 of the UGC Act 1956 has been converted into a state university under the name of "Dharmsinh Desai University, Nadiad" through an Act 16 of 2005 dated 23<sup>rd</sup> March, 2005 of Gujarat State Legislature and notified vide State Government notification GH/SH/3/APB-2003-1610-S dated 11<sup>th</sup> April, 2005. Dharmsinh Desai University, Nadiad is included under Section 2 (f) of UGC Act, 1956 w.e.f. 11<sup>th</sup> April, 2005.

The name of Dharam Singh Desai Institute of Technology, Nadiad has accordingly been deleted from the list of Deemed Universities.

*sd/-*

(Mrs. Urmil Gulati)  
Under Secretary

#### **Copy to:-**

1. The Vice-Chancellor, Dharmsinh Desai University, College Road, Nadiad-387 001 (Gujarat).
2. The Secretary, Government of India, Ministry of Human Resource Development, (Department of Secondary & Higher Education), Shastri Bhavan, New Delhi-110 001.
3. The Secretary to the Government of Gujarat, Department of Higher Education, Gandhinagar (Gujarat).
4. The Secretary General, Association of Indian Universities, 16 Kotla Marg, New Delhi-110 002.
5. Director, (NAAC) National Assessment and Accreditation Council (NAAC), Bangalore-560 010.
6. The Director, Medical Council of India, Kotla Road, New Delhi-110 002.
7. The Secretary, Union Public Service Commission, Shahajahan Road, New Delhi-110 001.
8. The Joint Secretary, (SU), UGC, New Delhi.
9. Senior Statistical Officer, UGC, 35, Ferozshah Road, New Delhi-110 001.
10. P.O (web-site), UGC, New Delhi.
11. Section Officer (Meeting Section), UGC, New Delhi
12. All Regional Offices, UGC.
13. All Sections of the UGC, New Delhi.
14. D.T.P. Cell, UGC, New Delhi.
15. Guard file.
16. F. 9-4/2004 (CPP-I) UGC website.
17. F. 6-8/97 (CPP-I)

*Urmil Gulati*  
(Mrs. Urmil Gulati)  
Under Secretary





## ANNEXURE B



# Certificate of Registration

This is to certify that the Management System of:

**Dharamsinh Desai University**

**College Road, Nadiad-387 001, District Kheda, Gujarat, India**

has been approved by Alcumus ISOQAR and is compliant with the requirements of:

**ISO 9001: 2008**



<b>Certificate Number:</b>	<b>5673-QMS</b>
Initial Registration Date:	17 October 2006
Re-issue Date:	14 October 2015
Expiry Date:	14 September 2018

### Scope of Registration:

1. Providing Education Services in Technical, Dental, Pharmacy, Management, Computer Application and Commerce Field
2. Customised design and development solution in the field of Engineering, Management and Commerce Field
3. Consultancy Services in the field of Civil Engineering, Chemical Engineering, Research and Development and Business Management

Signed:  
**Steve Stublely, Technical Director**  
(on behalf of Alcumus ISOQAR)

A handwritten signature in blue ink, appearing to read "Steve Stublely", is written over a faint circular watermark.

This certificate will remain current subject to the company maintaining its system to the required standard. This will be monitored regularly by Alcumus ISOQAR. Further clarification regarding the scope of this certificate and the applicability of the relevant standards' requirements may be obtained by consulting Alcumus ISOQAR.



**Alcumus ISOQAR Limited** Cobra Court, 1 Blackmore Road, Stretford, Manchester  
M32 0QYT: +44 (0)161 865 3699 F: +44 (0)161 865 3685

*This certificate is the property of Alcumus ISOQAR and must be returned on request*



ANNEXURE C



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद  
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान  
**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**  
An Autonomous Institution of the University Grants Commission

## *Certificate of Accreditation*

*The Executive Committee of the  
National Assessment and Accreditation Council  
on the recommendation of the duly appointed  
Peer Team is pleased to declare the  
Dharmsinh Desai University  
Kadiad, Gujarat as  
Accredited  
with CGPA of 2.71 on four point scale  
at B grade  
valid up to January 07, 2016*

*Date : January 08, 2011*



*HARAN*  
Director

EC/52/A & A/40



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद  
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान  
**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**  
An Autonomous Institution of the University Grants Commission

## Quality Profile

Name of the Institution : Dharmsinh Desai University

Place : Nadiad, Gujarat

Criteria	Weightage ( $W_i$ )	Criterion-Wise Grade Point Averages ( $Cr_i$ GPA)	$W_i \times Cr_i$ GPA
I. Curricular Aspects	150	3.07	461
II. Teaching-Learning and Evaluation	250	2.56	640
III. Research, Consultancy and Extension	200	2.75	550
IV. Infrastructure and Learning Resources	100	2.30	230
V. Student Support and Progression	100	2.60	260
VI. Governance and Leadership	150	2.53	380
VII. Innovative Practices	050	3.70	185
Total	$\sum_{i=1}^7 W_i = 1000$		$\sum_{i=1}^7 W_i \times Cr_i \text{ GPA} = 2706$

$$\text{Institutional Score} = \frac{\sum_{i=1}^7 (W_i \times Cr_i \text{ GPA})}{\sum_{i=1}^7 W_i} = \frac{2706}{1000} = \boxed{2.71}$$

Grade =

Descriptor =

Date : January 08, 2011



*HARJAN*  
Director

- This certification is valid for a period of Five years with effect from January 08th 2011
- An institutional CGPA on four point scale in the range of 3.01 - 4.00 denotes A grade (Very Good), 2.01 - 3.00 denotes B grade (Good), 1.51 - 2.00 denotes C grade (Satisfactory)
- Scores rounded off to the nearest integer

## ANNEXURE D

<b>PEER TEAM REPORT OF Institutional Assessment and Accreditation of Dharmsinh Desai University, College Road, Nadiad -387 001,Gujarat</b>	
<b>Section I: GENERAL</b>	<b>INFORMATION</b>
1.1 Name & Address of the institution	Dharmsinh Desai University College Road Nadiad 387 001 Gujarat
1.2 Year of Establishment	01-01-1968 (As affiliated College)  02-06-2000 as Deemed University (under sections 3 of the UGC Act)  12-04-2005 (UGC under section 2(f) State University)  Recently acquired 12B status by UGC
1.3 Current Academic Activities at the Institution (Numbers):	
• Faculties	05 [Faculties of Technology, Management and Information Science, Dental Science, Commerce and Pharmacy]
• Programmes / Courses offered	UG – 12; PG – 11; Ph. D – 5; Total: 28
• Permanent Faculty Members	Male – 214, Female – 101, Total – 315
• Temporary Faculty members	Male – 20, Female – 05, Total – 25
• Part-time teachers	Male – 02, Female – 01; Total – 03
• Permanent Technical Staff	Male – 29; Female – 03; Total – 32
• Permanent Administrative Staff	Male – 118; Female – 02; Total – 120
• Number of Students in UG Programmes	Male – 3258; Female – 1797; Total – 5055
• Number of Students in PG Programmes	Male – 395; Female – 277; Total – 672
• Number of Students in Ph. D. Programme	Male – 46; Female – 26; Total – 72

1.4 Three major features in the institutional Context (As perceived by the Peer Team)	<ul style="list-style-type: none"> <li>Committed management with dedicated efforts</li> <li>Offering degree programmes in different disciplines</li> <li>Conducive academic and research environment</li> </ul>
1.5 Dates of visit of the Peer Team	September 21–24, 2010 Detailed visit schedule attached
1.6 Composition of the peer Team:	
Chairman	<p>Prof. L. K. Maheshwari Former Vice Chancellor Birla Institute of Technology &amp; Science Vidya Vihar Pilani – 333 031</p> <p>Residence: 335 / S12 Moti Nagar Lucknow – 226 004</p>
Member	<p>Prof. Dr. N. Jayasankaran Former D.G, Bharathidasan Institute of Management, No. 23, 12<sup>th</sup> Cross, Indiranagar 1<sup>st</sup> Stage, Bangalore – 560038</p>
Member	<p>Dr. C. Bhaskara Rao Former Vice President, DCI Director Sri Dharmasthala Manjunatheswara College of Dental Science and Hospital Dhavalanagar, Sattur Dharwad – 580 009</p>
Member	<p>Dr. Y. Madhusudan Rao University College of Pharmaceutical Sciences Kakatiya University Warangal – 506 009</p>
Member	<p>Prof. T. N. Mathur Professor, Department of Economic Administration and Financial Management, University of Rajasthan Jaipur – 302 004</p>

Member	Prof. Gautam Sanyal Professor & Dean (AA & RG) Department of Computer Science & Engg. National Institute of Technology Durgapur West Bengal
Member	Dr. S. Swaminathan Director, Centre for Nanotechnology & Advanced Biomaterial Dean, Sponsored Research SASTRA University Thanjavur – 613 401 Tamil Nadu
NAAC Officer	Dr. B. S. Madhukar Deputy Adviser NAAC Bangalore

<b>Section II : CRITERION WISE ANALYSIS</b>	<b>Observations on Key-Aspects</b>
<b><i>1.1 Curricular Aspects:</i></b> 1.1 Curricular Design & Development:	<ul style="list-style-type: none"> <li>• University follows guidelines defined by UGC, AICTE, DCI, PCI, etc to prepare the curricula with thrust on employment</li> <li>• Experts from industry &amp; research laboratories, alumni are invited in the design and periodic updation of the curricula</li> <li>• Academic programmes are in line with Vision and Mission of the University</li> <li>• Workshop for curriculum development are held</li> </ul>
1.2.Academic flexibility:	<ul style="list-style-type: none"> <li>• Programmes offered by the Faculties of Technology, Management &amp; Information Science are semester based and other Faculties follow annual system</li> <li>• University offers limited number of elective courses in various degree programmes</li> </ul>
1.3 Feedback on Curriculum:	<ul style="list-style-type: none"> <li>• Feedback mechanism exists in all Faculties</li> <li>• Societal appreciation of programmes</li> </ul>

1.4 Curriculum update	<ul style="list-style-type: none"> <li>• Curriculum in each programme is updated depending on the market needs</li> <li>• Some courses syllabus revised periodically</li> <li>• Value added courses like yoga, stress management and self-development offered as part of curriculum</li> <li>• All courses revised regularly</li> </ul>
1.5 Best Practices in Curricular aspects:	<ul style="list-style-type: none"> <li>• Experiential learning is a major component in many programmes and courses</li> <li>• Engineering programmes except IT are accredited for three / five years by the National Board of Accreditation</li> </ul>
<p><b>II Teaching–Learning &amp; Evaluation:</b></p> <p>2.1 Admission Process and Student Profile:</p>	<ul style="list-style-type: none"> <li>• Admission to professional courses through central entrance test conducted by the State following the reservation criteria. Top 15% rank holders opt for DDU</li> <li>• Students admitted to the Faculty of Commerce are admitted directly by the University based on merit</li> <li>• Full tuition fee waiver for girl students admitted through grant-in-aid scheme as per Government of Gujarat policy</li> <li>• About 30% students are girls</li> </ul>
2.2 Catering to the diverse needs:	<ul style="list-style-type: none"> <li>• Slow learners are identified and special attention is provided</li> <li>• Special classes arranged in English for rural students</li> <li>• No formal mechanism for advance learners in place</li> <li>• Tutorial classes for analytical subjects need to be strengthened</li> </ul>
2.3 Teaching–Learning Process:	<ul style="list-style-type: none"> <li>• University strictly adheres to the academic calendar</li> <li>• Theoretical subjects are reinforced during the practical sessions</li> </ul>



2.4 Teacher Quality:	<ul style="list-style-type: none"> <li>• Faculty members are recruited through open advertisement and well defined norms for recruitment are laid down</li> <li>• Only 22 faculty members possess Ph. D. qualification. 69% possess PG and above qualification and about 31% of faculty possess UG qualification</li> <li>• Initiatives are required to induct more faculty members with Ph. D. qualifications</li> </ul>
2.5 Evaluation Process and Reforms:	<ul style="list-style-type: none"> <li>• Evaluation comprises of continuous internal assessment and external end-semester examinations</li> <li>• Effective monitoring mechanism exists for student progress and communicated to the students and parents</li> <li>• Transparency in the evaluation system needs to be improved</li> </ul>
2.6 Best Practices in Teaching-learning and Evaluation:	<ul style="list-style-type: none"> <li>• Student mentor system exists</li> </ul>
<b>III Research, Consultancy &amp; Extension:</b>	
3.1 Promotion of Research:	<ul style="list-style-type: none"> <li>• University has set up a Center for Surface Science and Nanotechnology with adequate funding</li> <li>• Limited budget (1.5%) allocated for research activities</li> </ul>
3.2 Research and Publications Output:	<ul style="list-style-type: none"> <li>• At present 13 ongoing funded projects predominantly in engineering are there. Research activity &amp; faculty participation need to be enhanced.</li> <li>• In the Faculties of Dental Science and Pharmacy publications are satisfactory keeping in view that these Faculties are recent additions</li> <li>• Faculty needs to publish more research papers in peer reviewed journals</li> </ul>
3.3 Consultancy:	<ul style="list-style-type: none"> <li>• Departments provide research and testing services to various government / NGO / industries / community / public</li> <li>• Revenue generated through consultancy services to a tune of Rs 2.2 crores in the last five years</li> </ul>

3.4 Extension Activities:	<ul style="list-style-type: none"> <li>• Students and teachers participate in different NSS / NCC activities. Blood donation camp organized on a regular basis</li> <li>• Faculties of Dental Science and Pharmacy is involved in community health programmes</li> <li>• Computer literacy programmes are arranged for rural and tribal population and also for police personnel</li> </ul>
3.5 Collaborations:	<ul style="list-style-type: none"> <li>• Faculty of Technology offers a twinning programme with the University of Iowa</li> <li>• Collaboration exists with near by industries</li> <li>• Formal collaboration with Institutions leading to exchange of students &amp; faculty / joint research need to be increased</li> </ul>
3.6 Best Practices in Research, Consultancy and Extension:	<ul style="list-style-type: none"> <li>• Regular dental health camps organized</li> <li>• Anchor Institute conducts training programmes for chemical &amp; petrochemical industries, employees</li> <li>• Multi media based e-learning terminals spread education in rural areas</li> </ul>
<b><i>IV Infrastructure and Learning Resources:</i></b> 4.1 Physical Facilities for Learning:	<ul style="list-style-type: none"> <li>• Adequate equipment and lab facilities available for professional programmes</li> <li>• Some of the laboratories have been modernized using the TEQIP grant in the Faculty of Technology</li> <li>• Adequate class rooms, seminar halls and sports facility available</li> </ul>
4.2 Maintenance of Infrastructure:	<ul style="list-style-type: none"> <li>• Adequate budget for maintenance is allocated</li> <li>• Maintenance of the facilities needs further improvement</li> </ul>
4.3 Library as a Learning Resource:	<ul style="list-style-type: none"> <li>• Library budget needs to be substantially enhanced</li> <li>• Library needs to be automated and explore opening for longer durations</li> <li>• Need to enhance the number of titles and online resources</li> </ul>

4.4 ICT as Learning Resources:	<ul style="list-style-type: none"> <li>• Few class rooms are ICT enabled</li> <li>• Limited internet connectivity is available in campus</li> <li>• Internet bandwidth needs to be augmented and facility to be extended to hostel rooms</li> </ul>
4.5 Other Facilities:	<ul style="list-style-type: none"> <li>• Good hostel facilities are available for boys and girls with 24 hours catering</li> <li>• Canteen facility adequate</li> <li>• Sports facilities are satisfactory</li> <li>• University has 250 KVA Generator back up</li> <li>• Lab space and office space for faculty members need to be improved</li> </ul>
4.6 Best Practices in the development of Infrastructure and Learning Resources (If any):	<ul style="list-style-type: none"> <li>• Hostels provide 24 hours catering service</li> <li>• Standard operating procedures for all equipment in the Faculty of Pharmacy provided</li> <li>• NPTEL courses being used</li> </ul>
<p><b><i>V. Student Support and Progression:</i></b></p> <p>5.1 Student Progression:</p>	<ul style="list-style-type: none"> <li>• Initiatives exists to motivate students for pursuing higher studies by organizing different programmes</li> <li>• Low drop-out rate in all Faculties except Dental which is attributed to limitations in English proficiency</li> <li>• Placement cell functioning</li> </ul>
5.2 Student Support:	<ul style="list-style-type: none"> <li>• Student counsellors, welfare committee, anti-sexual harassment cell, anti-ragging committee, grievance redressal cell, etc are in place</li> <li>• Book bank facilities are available</li> </ul>
5.3 Student Activities:	<ul style="list-style-type: none"> <li>• Students are encouraged to participate in technical, cultural and sports events</li> <li>• Good facilities are provided to promote sports and cultural activities</li> <li>• Active participation of students in community development programmes</li> </ul>
5.4 Best Practices in Student Support and Progression (If any):	<ul style="list-style-type: none"> <li>• Co-curricular and extra-curricular activities supported by the University</li> </ul>

<p><b>VI Governance and Leadership:</b> 6.1 Institutional Vision and Leadership:</p>	<ul style="list-style-type: none"> <li>• Well defined vision and mission of the University to address the needs of the society</li> <li>• Leadership at all levels have the passion to excel</li> <li>• University has constituted various committees for effective implementation of the policies of the Management</li> <li>• Statues and Bye-laws of the University needs to be documented and strictly adhered to</li> </ul>
<p>6.2 Organizational Arrangements:</p>	<ul style="list-style-type: none"> <li>• University has organizational structure for its functioning</li> <li>• Faculty participation in budget planning need to be encouraged</li> </ul>
<p>6.3 Strategy development and deployment:</p>	<ul style="list-style-type: none"> <li>• University has a defined goal for growth and development</li> <li>• Long term plan of the University for consolidation of its achievements and also to meet the global challenges need to be in place</li> </ul>
<p>6.4 Human Resource Management:</p>	<ul style="list-style-type: none"> <li>• Faculty members are encouraged to attend QIP and enhance their qualification and upgrading the knowledge and skills</li> <li>• Self appraisal by the faculty exists</li> <li>• Skill development programmes for non-teaching staff to be encouraged to impart multiple skills</li> </ul>
<p>6.5 Financial Management and Resource Mobilization:</p>	<ul style="list-style-type: none"> <li>• Effective resource mobilization and adequate financial resources available</li> <li>• University accounts are subject to internal audit as well as DTE and AGI audits</li> </ul>
<p>6.6 Best Practices in Governance and Leadership:</p>	<ul style="list-style-type: none"> <li>• Good relationship with all stake holders</li> </ul>
<p><b>VII Innovative Practices:</b> 7.1 Internal Quality Assurance System:</p>	<ul style="list-style-type: none"> <li>• Various committees in place to ensure quality</li> <li>• ISO certification obtained</li> </ul>

7.2 Inclusive practices:	<ul style="list-style-type: none"> <li>• Initiatives taken to promote empowerment of rural people</li> <li>• Scholarships available for socially and economically weaker students</li> </ul>
7.3 Stakeholder Relationships:	<ul style="list-style-type: none"> <li>• Excellent proactive relationship exist among various stakeholders</li> <li>• Very high involvement of stakeholders in institution building</li> <li>• University has different student chapters of professional bodies</li> </ul>
<b>Section III: OVERALL ANALYSIS</b>	<b>OBSERVATIONS</b>
3.1 Institutional Strengths:	<ul style="list-style-type: none"> <li>• Committed leadership and dedicated staff members</li> <li>• NBA accreditation and ISO certification</li> <li>• Revenue generation through consultancy</li> <li>• Faculty of Pharmacy maintains a good medicinal plant garden</li> <li>• Good discipline maintained in the campus</li> <li>• Goodwill and patronage of public and good relationship with stakeholders</li> </ul>
3.2 Institutional Weaknesses:	<ul style="list-style-type: none"> <li>• Choice based credit system not implemented</li> <li>• Lack of adequate faculty with Ph. D.</li> <li>• Limited internet bandwidth</li> <li>• Lack of interdisciplinary research</li> <li>• Elective subjects in humanities, basic sciences and social sciences may be made available across disciplines</li> <li>• No formal coaching of SC/ ST students for competitive exams</li> </ul>
3.3 Institutional Opportunities:	<ul style="list-style-type: none"> <li>• Introducing choice based credit system in all the programmes</li> <li>• Diversification of courses to provide greater flexibility and choices</li> <li>• Introducing university funded scholarships</li> <li>• Sponsored research activity need to be further strengthened</li> <li>• Steps to improve basic and applied research at all levels and in all programmes</li> <li>• Faculty of Dental Science to strengthen infection control measures</li> </ul>

	<ul style="list-style-type: none"> <li>• Setting up of comprehensive dental health care department</li> <li>• Strengthening of entrepreneurship activities</li> <li>• To provide leadership programmes for educational administrators at different levels</li> </ul>
3.4 Institutional Challenges:	<ul style="list-style-type: none"> <li>• Attract higher qualified faculty in emerging areas and retention of experienced faculty</li> <li>• Improving the student–faculty ratio</li> <li>• Achieving excellence in research and consultancy</li> <li>• Motivating faculty to acquire Ph. D. degree</li> <li>• Facing local and global competition</li> <li>• To adopt Enterprise Resource Planning (ERP) system for University operations</li> <li>• To be visible at National &amp; International levels</li> </ul>

#### **Section IV: Recommendations for Quality Enhancement of the Institution**

- Introduction of choice based credit system in all programmes
- Annual system may be replaced with semester / trimester systems at UG / PG levels wherever feasible
- Establish a Central Library for the University with sufficient funding for books, journals and e-resources
- Wi-Fi facility with higher speed internet connectivity may be provided
- Stepping up collaborative research with industries and encourage research at all levels. Adequate allocation of budget for research
- Faculty development programmes to improve the domain knowledge and teaching skills of faculty. University support programmes of industries can be used for faculty development.
- Skill up gradation of non-teaching staff
- Efforts to obtain status as a “University with Potential for Excellence”
- Appointment of teaching faculty in specialized areas
- Faculties of Liberal Studies and Social Sciences may be explored

**Name**

**Signature with date**

- 1. Prof. L. K. Maheswari  
Chairperson**
- 2. Prof. Dr. N. Jayasankaran  
Member**
- 3. Dr. C. Bhaskara Rao  
Member**
- 4. Dr. Y. Madhusudan Rao  
Member**
- 5. Prof. T. N. Mathur  
Member**
- 6. Prof. Gautam Sanyal  
Member**
- 7. Dr. S. Swaminathan  
Members**
- 8. Dr. B. S. Madhukar  
Member**

I have gone through the Report.

**Signature of Vice Chancellor**

**& Seal**





# ACTION TAKEN REPORT



### **Comment 1 : Choice based credit system not implemented**

University has rigorously worked on choice based credit system (CBCS) for all programmes. As an outcome of these, Academic Councils has already approved choice based credit system from the academic year 2016-17.

### **Comment 2 : Lack of adequate faculty with Ph.D.**

University encourages faculty members to join either in-house research programme or under QIP scheme to pursue their Ph.D. As results of this initiative, following noteworthy outcome has been achieved.

- At present, University is having 272 well qualified faculty members associated with its different faculties. Out of these, 38 faculty members are having doctoral degree. This is almost three times increment in numbers as University had only 14 Ph.D. holders during year 2009-10 at the time of first assessment.
- University having 179 faculty members with PG qualification. At present, 29 faculty members are pursuing their Ph.D. in different emerging areas of science, technology, Pharmacy and management.
- Apart from these, University emphasizes to appoint faculty members having excellent research and industrial background. As a part of recruitment process, University advertises in reputed national/local newspapers and on University website to attract good talent.

### **Comment 3: Limited Internet Bandwidth**

University has 50 Mbps of internet connectivity. All department LANs are connected through 10 Gbps of fiber backbone.

### **Comment 4 : Lack of interdisciplinary research**

In last five years, University has laid emphasis on interdisciplinary research activity through project works, consultancy and publications.

- University encourages faculty members to carry out interdisciplinary research projects and submit proposals to various funding agencies. Out of 53 major/minor ongoing or completed projects, 17 projects are of interdisciplinary research projects.
- Environmental Audit Cell of University, having faculty members from Civil and Chemical Engineering Department, carried out consultancy of worth Rs. 3,65,96,000/- by providing various kind of technical services to chemical process industries.
- Apart from these, University has established Shah-Schulman Center for Surface Science and Nanotechnology to boost inter disciplinary research in the area of science, technology and pharmacy.
- University has also established Bosch-Rexroth Center of Excellence in mechanical department with the technical support of faculty members from various disciplines like computer engineering, Instrumentation and Control Engineering and Electronics and Communication Engineering.

**Comment 5 : Elective subjects in humanities, basic sciences and social sciences may be made available across disciplines**

Universities meticulously worked on introducing various elective subjects in humanities, basic sciences and social sciences across various disciplines. Various elective subjects like Environmental Science, Personality Development, Ethics and Stress Management, Economics and Principles of Management, Yoga and Meditation are offered to different disciplines.

**Comment 6 : No formal coaching of SC/ST students for competitive exams**

University started various coaching classes for competitive exams like GATE, GRE, NET for all interested students.

**Comment 7 : Establish a Central Library for the University**

University established central library facility having 25000 Sq. ft. area with all latest facilities.

**Comment 8 : Efforts to obtain status as a “University with Potential for Excellence”**

The state government has floated scheme for Universities called “Centre for Excellence”. DDU is shortlisted for the same and it is under consideration.

**CRITERIA WISE  
ANALYTICAL REPORT**



## CRITERION I - CURRICULAR ASPECTS

### 1.1 Curriculum Design and Development

#### 1.1.1 How is the institutional vision and mission reflected in the academic programmes of the university?

Dharmsinh Desai University has been serving the cause of Higher Education and fulfilling the aspirations of students in pursuit of academic excellence. It has emerged as a trendsetter in the field of higher learning in the country. It is a multi-faculty University of the country. It consists of Faculty of Technology, Faculty of Pharmacy, Faculty of Dental Science, Faculty of Management and Information Science.

#### **Vision**

- To become a multi-disciplined & learner oriented University.
- To closely associate with and be responsive to Industry.
- To create supportive and caring environment for staff and students.
- To Improve Research and Development activities in areas of national priority.

#### **Mission**

The University shall undertake programs and projects for development of human resources, both through formal and non-formal delivery systems, in areas of professional pursuits in all walks of human endeavors, with accent on relevance, value addition, societal needs and futuristic pilot projects.

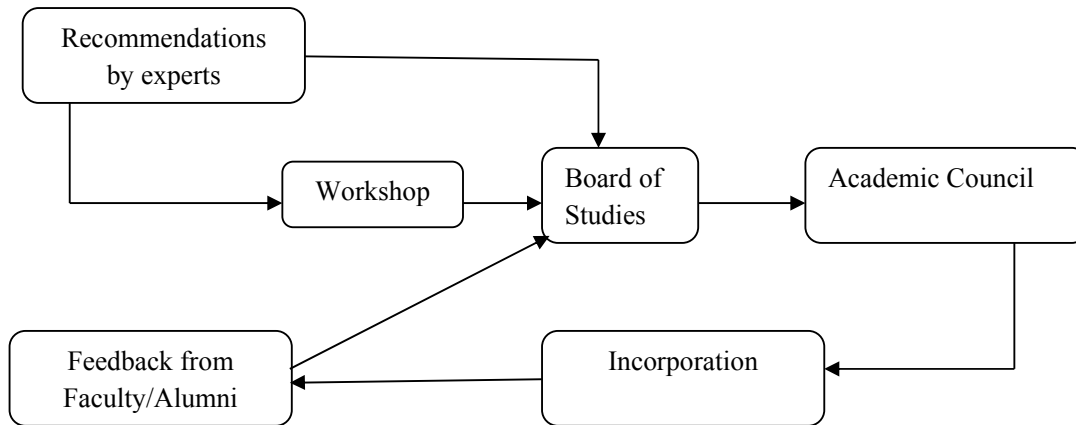
#### 1.1.2 Does the university follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).

#### **Yes**

The University organizes Curriculum Development Workshop every year to review existing curriculum. This involves participation from Industry Experts, Academic Peers, Industry Experts and all the faculty members. After thorough discussion a draft is prepared by the department and presented to the Boards of Studies (BoS). Then, the proposals are put for consideration at Academic Council level.

Board of Studies comprises of experts from industry, research organizations and Academia. They discuss the current scenario and relevance of the programme being offered. They also discuss suggestions given by students, alumni and industry experts and take appropriate decision. Inputs from students, alumni and employers are also taken into consideration through curriculum feedback.

In Faculty of Dental Science and Faculty of Pharmacy, guidelines of concerned regulatory bodies like Dental Council of India (DCI) and Pharmacy Council of India (PCI) are followed. The university assesses the need for the revision, the extent and depth of the change, the actual matter which needs to be incorporated and the one which has become redundant is scrapped out. Blueprint for the design and development of the curriculum is as under:



### 1.1.3 How are the following aspects ensured through curriculum design and development?

#### \* Employability

- An employer looks for a set of skills, knowledge input and attitude in a person they employ. These are provided during the tenure of a student at the University by ensuring that the necessary skill set and knowledge inputs are given in a manner that the person can be useful to the employer from day one. Student attitude is made positive by giving inputs which are not only course related but touch human life at large. Students have the opportunities of working in teams under difficult circumstances so that they value the benefits of cooperation. Further, employability is ensured by introducing industrial/field training and induction of electives in the programme. The involvement and continuous interaction with industry and academic institutes, for curriculum framing as well as updating the same according to the current trends, helps in absorbing students for summer as well as final placement.
- The needs of society, industry and R&D institutions are major considerations that go into the design and restructuring of courses. This would ensure the employability of the out-coming batch of students. The requirement specification and required skill-set are arrived after due interaction with probable future employers.
- Introduction of new courses and new UG/PG programmes are based on the global trends and requirements. We also perform periodic revision of curricula. This is enabled by the constant interaction with Industry experts, academic peers and reputed institutes with-in state and across India.

#### \* Innovation

- The required skill-set and dynamic requirements demand innovation in the curriculum. Therefore, innovation in teaching, learning and evaluation processes is a necessary input for improved output.
- Conducting innovative experiments in order to achieve high standard of education, research and training.
- Centre of Excellence (CoE) in Automation Technology is established in collaboration with Bosch Rexroth India Ltd in the fields of Hydraulic, Pneumatic, Sensoric, PLC and CNC machine.



#### \* Research

- The University is continuously pursuing research for improving the domain knowledge that facilitates ensuring the inclusion of contemporary developments in various subjects. Further, the University facilitates the interaction of the faculty members through Departmental Committee meetings held from time-to-time to improve the dynamics of teaching and learning.
- Establishing special centers of Excellence.
- Developing and maintaining linkages with various institutions and industries.
- Developing and maintaining relationships with industry experts, faculty members and researchers from other institutions.

#### **1.1.4 To what extent does the university use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the university been instrumental in leading any curricular reform which has created a national impact?**

The University adopts all the guidelines issued by the regulatory bodies like UGC/AICTE/PCI/DCI etc. while developing the curricula. The directives from such bodies are forwarded to the respective BoS. By and large, ninety percent of course content of various programmes has been matching with the model curricula developed by UGC/AICTE/PCI/DCI. The University, has passed through many stages of its journey in imparting higher education, has transformed its curricula structures keeping the pace with dynamic technological developments.

#### **1.1.5 Does the university interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the university benefitted through interactions with the stakeholders?**

The curriculum revision process is initiated by the respective BoS on its own or at the behest of University depending on the need. The composition of each BoS which also possesses adequate representation from industry, research institutions and society as well, thus, provides meaningful interaction between academicians and other stakeholders. The BoS constitution is as follows:

- Head of the Department/Faculty as the Chairman
- All Professors within the department
- Two Associate Professors (By Rotation)
- Two Assistant Professors (By Rotation)
- Two Experts to be co-opted from outside the University and special invitees

#### **1.1.6 Give details of how the university facilitates the introduction of new programmes of studies in its affiliated colleges.**

Not Applicable

#### **1.1.7 Does the university encourage its colleges to provide additional skill-oriented programmes relevant to regional needs? Cite instances (not applicable for unitary universities).**

Not Applicable

## 1.2 Academic Flexibility

### 1.2.1 Furnish the inventory for the following:

#### \* Programmes taught on campus

Sr. No	Level of Programme	No of Programme	Name of Programme
1	UG	10	B.Pharm.
			B.D.S.
			B. Tech. - Computer Engineering
			B. Tech. - Instrumentation & Control Engineering
			B. Tech. - Civil Engineering
			B. Tech. - Chemical Engineering
			B. Tech. - Electronics & Communication Engineering
			B. Tech. - Mechanical Engineering
			B. Tech. - Information Technology
			B.B.A. - Hotel Management
2	PG	18	M. Pharm.- Pharmaceuticals & Pharmaceutical Technology
			M. Pharm. - Quality Assurance
			M.D.S. - Periodontology
			M.D.S. - Prosthodontics and Crown & Bridge
			M.D.S. - Orthodontics and Dentofacial Orthopaedics
			M.D.S. - Oral and Maxillofacial Surgery
			M.D.S. - Conservative Dentistry and Endodontics
			M.D.S. - Oral Pathology and Microbiology
			M. Tech. - Computer Engineering
			M. Tech. - Instrumentation & Control Engineering
			M. Tech. – Civil (Structural) Engineering
			M. Tech. - Civil (Geotechnical) Engineering
			M. Tech. - Chemical Engineering
			M. Tech. - Electronics & Communication Systems
			M. Tech. - Information Technology
			M.C.A.
			M.B.A.
M. Tech. - Mechanical Engineering			
3	Ph.D.	04	Pharmacy
			Engineering
			Management
			Applied Science
4	Diploma	01	Chemical Engineering

**Total 33**

M.D.S. – Master in Dental Science  
 B.D.S. – Bachelor in Dental Science  
 M. Pharm. – Master of Pharmacy  
 B. Pharm. - Bachelor of Pharmacy

M. Tech. – Master of Technology.  
 B. Tech. – Bachelor of Technology  
 M.C.A. – Master in Computer Applications  
 M.B.A. – Master in Business Administration

**\* Overseas programmes offered on campus**

University does not offer any overseas programme

**\* Programmes available for colleges to choose from**

Programmes available for constituent colleges of the university are:

- Bachelor of Commerce
- Bachelor of Commerce (English Medium)
- Bachelor of Business Administration (B.B.A.)
- Master of Commerce (M. Com.)
- Bachelor of Computer Application (B.C.A.)

**1.2.2 Give details on the following provisions with reference to academic flexibility**

**\* Core / Elective options**

At UG level some subjects are chosen as elective options in the third and fourth year. MBA programme offer core and elective options, within specializations. The flexibility of choosing a specialization is with a candidate, and flexibility is offered for the choice of subjects.

Name of subjects' chosen as elective options are listed below.

Sr. No	Name of Course	Name of Elective Subject
01	B. Pharm.	Pharmaceutics
		Novel Drug Delivery System
		Pharmacology & Toxicology
		Pharmaceutical Chemistry
		Pharmaceutical Analysis
		Pharmacognosy
02	B. Tech. in Computer Engineering	Image Processing
		Knowledge Discovery
		Mobile Application Development
		Embedded System
03	B. Tech. in Chemical Engineering	Petrochemical Technology
		Petroleum Refinery Engineering
		Energy Technology
		Numerical Techniques
		Fermentation Technology
		Introduction to Nanotechnology
		Fluidization
		New Separation Technique
		Bio-reactor Design and Operation
		Polymer Science & Engineering
		Computer-aided Design
		Multi-component Distillation
		Mass Transfer with Chemical Reaction
Advanced Control Systems		
Catalysis		

		Chemical Engineering Practice
		Biochemical Engineering
04	B. Tech. in Civil Engineering	Finite Element Method
		Building Repairs And Rehabilitation
		Pre-stressed Concrete
		Design of Hydraulic Structures
		Earthquake Engineering
		Project Planning And Control
		Advanced Concrete Technology
		Design of Special Structures
05	B. Tech. in Instrumentation & Control	Process Instrumentation
		Applied Instrumentation
06	B. Tech. in Information Technology	Digital Switching System
		Core Java Technology
		E-Commerce and E-Security
		Introduction to Neural Networks
07	B. Tech. in Mechanical Engineering	Mechanical Vibration
		Steam and Gas Turbine
		Finite Element Methods
		Automobile System
08	B. Tech. in Electronics & Communication	CMOS VLSI Design
		Digital Switching Systems
		Operating Systems
		Image Processing
		Biomedical Instrumentation
		Advanced Digital Signal Processing
		Wireless Communication
		Optical Signal Processing
		Radar and Navigation
		Embedded Systems
		High Performance Computer Architecture
		Data & Computer Communications
		Introduction to Networks and Their Applications

**\* Enrichment courses**

University has introduced extra-disciplinary courses as part of personal enrichment of students. University offers Self & Personality Development and Introduction to yoga as personal development subjects.

**\* Courses offer in modular form**

Nil

**\* Credit accumulation and transfer facility**

Nil

**\* Lateral and vertical mobility within and across programmes, courses and disciplines**

In the second year engineering students are offered the option for branch change based on their merit and availability of seats.

**1.2.3 Does the university have an explicit policy and strategy for attracting international students?**

All programs are open to International Students subject to fulfilment of eligibility criteria. University has NRI quota for the admission.

**1.2.4 Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.**

All programs are open to NRI students subject to fulfilment of eligibility criteria. All NRI admissions are done as per the state government rules.

**1.2.5 Does the university facilitate dual degree and twinning programmes? If yes, give details.**

**Yes**

The University has MoU with University of IOWA, USA for twinning program. The 5-year DDU-UIOWA joint B.Tech.+M.S. Degree program is designed for qualified DDU students to pursue studies leading to the B.Tech. Degree from DDU and simultaneously the M.S. degree from University of IOWA, USA. Students in this program are expected to successfully complete the normal requirements of the M.S. degree at University of IOWA and those of the B.Tech. Degree at DDU.

**1.2.6 Does the university offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?**

**Yes**

University has many self-financing programmes like B. Pharm, B.D.S, B. Tech, M. Tech, M. Pharm, M.D.S. and Ph.D. Admissions of UG and PG self-finance programme is governed by Joint Admission Committee, Government of Gujarat. Fee structure for all self-finance programmes is as per the rules of the Government of Gujarat. Admissions in Ph.D. programme is done as per the guideline of the UGC. Qualification and salary of the teachers are as per the norms of UGC/AICTE/PCI/DCI/Government of Gujarat.

**1.2.7 Does the university provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in?**

**No**

**1.2.8 Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?**

**Yes**

The CBCS has been implemented. For first phase all UG and PG programme included in this system. CBCS system will be adopted in all the courses offered by the university from academic year 2016-2017.

### **1.2.9 What percentage of programmes offered by the university follow:**

#### **\* Annual/Semester system**

University offers semester system except in BDS and in MDS Programme.

#### **\* Trimester system**

At present, no courses are being offered in this system

### **1.2.10 How does the university promote inter- disciplinary programmes? Name a few programmes and comment on their outcome.**

University promotes interdisciplinary research work considering the global needs and industry needs, interdisciplinary topics of relevance are identified. To promote interdisciplinary work university has set up Shah-Schulman Center for Surface Science and Nano Technology (SSCSSN) and CoE. University has introduced Surface Science and Nanotechnology specialization in M.Tech. Chemical Engineering programme. Students enrolled in this programme got the knowledge of surface science and also get in touch with role and application nanotechnology in surface science.

## **1.3 Curriculum Enrichment**

### **1.3.1 How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/or job oriented/ knowledge intensive and meeting the emerging needs of students and other stakeholders?**

Curriculum of the each department/faculty is reviewed twice in a year by the BoS of the each faculty and as per the suggestions of the BoS members necessary changes are made in existing syllabus to make it socially relevant/job oriented / and meeting to intensive needs of students and stakeholders. Curriculum revised by the BoS is reviewed by the academic council and it is implemented incorporating suggestions by the academic council if any.

### **1.3.2 During the last four years, how many new programmes at UG and PG levels were introduced? Give details.**

During last four years new programmes introduced at UG and PG levels are as follows:

#### **UG Programs**

- B. Tech. in Mechanical Engineering
- B.B.A. in Hotel Management

#### **PG Programs**

- M. Pharm in Pharmaceutics and pharmaceutical Technology
- M. Pharm in Quality Assurance
- M. Tech. in Mechanical Engineering
- M.D.S. in Periodontology
- M.D.S. in Prosthodontics and Crown & Bridge
- M.D.S. in Orthodontics and Dentofacial Orthopaedics
- M.D.S. in Oral and Maxillofacial Surgery
- M.D.S. in Conservative Dentistry and Endodontics
- M.D.S. in Oral Pathology and Microbiology

### **1.3.3 What are the strategies adopted for the revision of the existing programmes? What percentage of courses underwent a syllabus revision?**

The University conducts frequent interactive meetings with Deans, Head of Departments, and experts from industry/academia and assesses the need for revision of existing programmes. While restructuring the courses, the University gives utmost importance to make them socially relevant and job oriented.

The syllabi in all the courses offered in the university have been revised during the assessment period. 80% of courses across all the faculties are with revised syllabi.

### **1.3.4 What are the value-added courses offered by the university and how does the university ensure that all students have access to them?**

Self-development, Yoga, Ethics & Value, Environmental Studies etc. is offered as value added courses.

Computer engineering and Information Technology departments have included Dot Net technology course and Java Technology course in core and advance version. Electronics and Communication Engineering department has included courses on Applied Mathematics and Project Management. Instrumentation and Control Engineering department has included Biomedical Instrumentation course.

Management department offers courses in Communication to develop interpersonal skills.

University offers Industry training, Certified courses like CISCO Certification, Technical programs by Tata Consultancy Services, Infosys, e-Infochips etc. The students of Faculty of Dental Science work under specified faculty members on patients of OPD - as live case studies. Certain courses offered in Management department and Faculty of Dental Sciences sensitizes students about the Community needs.

### **1.3.5 Has the university introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?**

Anchor Institute for chemicals and petrochemicals promoted by department of mines and petrochemicals is established to impart higher order skills in field of chemicals and petrochemicals.

University started B.B.A. in Hotel Management to develop skilled manpower for hotel industry in this region

## **1.4 Feedback System**

### **1.4.1 Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?**

**Yes**

The University has formal mechanism for student feedback. The student gives feedback online on each course twice in a semester. The analysis of student feedback of each course

being monitored by the Head of Department and the feedback is communicated to concern faculty member for further improvement. Feedback is also obtained through personal interaction with students during the meetings with Student counselors and Mentors. In addition to this feedback is taken from all the stakeholders

**1.4.2 Does the university elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact.**

**Yes**

Broadly, the University has followed model curricula recommended by the state and national level regulatory agencies for all its courses.

For the development of syllabi for the any course university obtain opinions of experts who are coming at national, international and state level workshops/seminars in their respective fields.

**1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.**

University do not have any affiliated colleges.

**1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the university in ensuring the effective development of the curricula?**

Curriculum aspects are strengthened by revision of syllabi at par with emerging trends and to meet global demand by giving thrust on application oriented subjects. An Internal Quality Assurance Cell is in force and under the aegis of the Cell, periodic meetings are held with the Heads of the Departments and other members.

University has adopted model curriculum developed by UGC/AICTE/PCI/ DCI.

Introduced Project Work in the final semester for all PG programmes to strengthen research.

In last five years significant changes in technology have taken place and we have tried to incorporate them in our various courses. The impetus for this comes from the industry, alumni, academic experts and students through various feedback mechanisms. This has led to updation of the content of various courses as well as introduction of new courses.

We also benchmark our courses with valuable National Level institutions such as IITs, IIMs and we try to reduce the gap by offering relevant contemporary courses.

Long duration industry training is a must for students of various Faculties as we believe that understanding of various concepts and theories can be reinforced through such training.

We appreciate that comprehension levels of students are different. We have mechanisms of remedial and re-remedial examinations for slow learners. We arrange programs on advanced topics in vacation period for persons who can cope up. Faculty members extensively uses ICT infrastructure for conducting lectures.



## CRITERION II - TEACHING-LEARNING AND EVALUATION

### 2.1 Student Enrolment and Profile

#### 2.1.1 How does the university ensure publicity and transparency in the admission process?

In the matter of admissions, DDU has to follow the Centralized Admission Process at state level. The Central Committee follows the Government of Gujarat rules for admission into the various programs.

The Joint Admission Committee of Gujarat State ensures transparency through publishing of admission brochure giving details of eligibility criteria, admission criteria, and number of seats, and scholarships that are available. The brochure is available on the admission committee website with elaborate details and easily accessible features.

The university has also full-fledged help center during the period of announcement for admission and the last dates of the submission of applications. The university has also full-fledged Administrative Office for providing information details telephonically and in person.

The admission process for NRI students is highly transparent with clearly outlined calendar for different stages of the admission process including the dates of the declaration of merit and wait lists and dates of counselling and admission. All information relating to the different stages of the process of NRI admission are uploaded on the university website.

#### 2.1.2 Explain in detail the process of admission put in place by the university. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the university (please specify).

The admission criteria at the university is as per the Government of Gujarat rules which vary in respect to the courses at different levels (undergraduate, postgraduate and research).

Consequently, the university undertakes admissions based on either (i) University Entrance Test or (ii) State wide Common Entrance and Merit.

In most of the professional and technical courses admissions are based on State wide Common Entrance Tests. Students merit list is prepared by Joint Admission Committee for Professional Courses based on the performance in Common Entrance Test and Qualifying examination. Admission in the various programs is given based on Merit and other qualifying Criteria defined by Government of Gujarat.

The details of Common Entrance Test and the admission criteria for the courses offered by the university are tabulated below.

No	Program of Study	Mode of admission
1	B.Tech.	Qualifying Exam + JEE main + Merit
2	M.Tech.	Qualifying Exam + Gate/GUJCET + Merit
3	M.C.A.	Qualifying Exam + CMAT + Merit
4	M.B.A.	Qualifying Exam + CMAT + Merit
5	B.Pharm.	Qualifying Exam + GUJCET + Merit
6	M.Pharm	Qualifying Exam + CPET + Merit
7	B.D.S.	Qualifying Exam + GUJCET + Merit
8	M.D.S.	Qualifying Exam + Entrance Test + Merit

In Ph.D. programmes, admissions are given purely on the basis of the Entrance Test conducted by the University.

**2.1.3 Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.**

Not Applicable.

**2.1.4 Does the university have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?**

Since, University adheres to the state wide common system for admissions, reviewing of the admission process is taken care by Joint Admission Committee on regular basis.

However, the departments regularly review the admission process based on their admission experiences, feedback from students and faculty consultation. The Joint Admission Committee invites feedback from Institutes and the improvement scopes are conveyed to them.

**2.1.5 What are the strategies adopted to increase / improve access for students belonging to the following categories.**

- \* SC/ST
- \* OBC
- \* Women
- \* Persons with varied disabilities
- \* Economically weaker sections
- \* Outstanding achievers in sports and other extracurricular activities

The university follows Government of India and UGC guidelines for reservation of seats in admissions to all the academic programs. As per the state government rule, the category wise reservations are SCs (7%); STs (15%); OBCs (27%); Persons with varied disabilities (3%); Kashmiri Migrants (1%); NCC/NSS/Sports & Games/Ex-servicemen (1%). The university allows age relaxation of 3 years for women candidates, 5 years in case of SC/STs, 3 years in case of OBCs and 10 years for persons with varied disabilities.

For SC/STs candidates, as per the Government of India norms, relaxation of 5% is provided in both entrance and qualifying marks. However, candidates failing in the

qualifying examination are not eligible for admission. For Kashmiri migrants there is a relaxation of 10% in cut-off percentage subject to minimum eligibility requirement.

The university has a special mandate to focus on women. Tuition Fee is completely waived for girl students under GIA. To promote, Women Empowerment, DDU through its alumni association has taken unique initiative of offering scholarships to girl students based on their merit. Besides, towards their safety DDU has taken several initiatives like; (i) in campus hostel for girls (ii) provision of full time counsellor for girl students at department level (iii) Internal Complaint Committee under Women Cell as per UGC guidelines.

Further, University also provide admission to the applicants under TFW scheme, as directed by the Government of Gujarat. The university also provides merit-cum-means scholarship to all under-graduate students based on their performance in University exams. The mechanism so designed has helped brighter students financially and also has contributed in developing a culture of healthy competition amongst the students.

### 2.1.6 Number of students admitted in university departments in the last four academic years:

The number of students admitted in different departments under different categories are tabulated below.

#### Faculty of Technology

Category	(2011-2012)		(2012-2013)		(2013-2014)		(2014-2015)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	37	8	23	5	39	7	32	11
ST	53	7	43	17	51	6	47	12
OBC	152	54	172	48	143	44	168	51
General	285	95	311	86	315	97	278	86
Others	55	17	62	7	53	19	62	13

#### Faculty of Pharmacy

Category	(2011-2012)		(2012-2013)		(2013-2014)		(2014-2015)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	3	1	4	1	3	1	5	2
ST	0	0	0	0	0	0	0	0
OBC	3	4	4	0	6	2	3	5
General	22	19	35	22	27	25	19	31
Others	0	0	0	0	0	0	0	0

#### Faculty of Dental Science

Category	(2011-2012)		(2012-2013)		(2013-2014)		(2014-2015)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	4	1	1	4	7	8	4	2
ST	0	0	0	0	0	0	0	0
OBC	5	16	15	4	8	11	16	8
General	19	42	27	41	38	25	39	35
Others	2	13	12	7	11	4	5	9

## Faculty of Management and Information Science

Category	(2011-2012)		(2012-2013)		(2013-2014)		(2014-2015)	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	10	6	11	4	12	7	9	8
ST	4	7	7	3	4	2	8	1
OBC	27	14	32	11	28	15	33	9
General	49	22	64	22	56	25	62	23
Others	4	2	3	1	3	0	4	1

### **2.1.7 Has the university conducted any analysis of demand ratio for the various programmes of the university departments and affiliated colleges? Highlight the significant trends explaining the reasons for increase / decrease.**

The demand pattern over a period of five years has been observed. In B.Tech. programme, first two choices of branches are chosen randomly and follow general trend. This is with reference to future demands, government policies and impression of current placement. Generally, the programmes with high employability are always in demand. However, marginal increase/decrease is observed for other branches. The UG programmes offered by various faculties of the university show a mixed trend, which is attributed to the acceptance of the unique programmes amongst the eligible/targeted candidates.

It is not possible to work out Demand Ratio as the admissions are through JACPC, Government of Gujarat, in which all candidates opt for majority of branches, and seats are allotted based on merit cum choice means.

DDU is attracting best of the best talent from the state and all the programmes are in good demand and since last 10 years no program is discontinued.

### **2.1.8 Were any programmes discontinued/staggered by the university in the last four years? If yes, please specify the reasons.**

**No.**

During the last four years, the university did not discontinue any program of study.

## **2.2 Catering to Student Diversity**

### **2.2.1 Does the university organize orientation / induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.**

**Yes.**

As a regular feature of University, each faculty organizes the orientation programs for the freshers. The duration of orientation programs is usually of one day. However, the nature in which experts are called for the orientation programs is varying from department to department. The orientation program is conducted with a mixed team of internal faculty members and external experts especially from the field/NGOs so that the students could develop professional orientation and be prepared for the field work practice.

The students and parents both are invited for the orientation program.

The Vice Chancellor familiarizes them with the working culture of the University and motivates them for disciplined and dedicated approach towards learning. The controller of exam briefs them with the academic rules and regulations pertaining to their course of study.

A complete brochure mentioning syllabus, teaching scheme and academic calendar from the orientation day to the convocation day is provided. On the orientation day, a campus visit for the students is arranged by the faculty members of concerned departments.

**2.2.2 Does the university have a mechanism through which the “differential requirements of the student population” are analyzed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?**

It is pertinent to mention that the admission process for majority of courses goes on for a long time. Therefore, there is little time between admission and the commencement of classes. However, the University starts relevant interventions just after the admission process.

The orientation programs for the students are mechanisms through which each department and the faculty members have the first hand personal interaction with the students for better rapport and student support services.

All faculty members at DDU are conscious of the fact that students belong to diverse backgrounds and that they need to be specifically sensitized and motivated with reference to the academic programs they are pursuing and their relative future prospects. Each department organizes remedial classes for late admitted students and students getting admitted through lateral entry in Diploma to Degree category.

**2.2.3 Does the university offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?**

The university has a well-organized and established system of remedial classes. A senior faculty is appointed as Coordinator for the remedial classes; who organizes the schedules for the remedial classes in each semester for all programs. The departments are asked to provide the list of subjects in which remedial classes are to be organized.

Often the departments are also provided autonomy and financial support to engage remedial classes with the help of internal faculty and invited experts. The departments are also arranging workshops and seminars.

**2.2.4 Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?**

All the faculty members at DDU are conscious of the fact that students coming to DDU

have diverse backgrounds in terms of economic and regional backwardness apart from a variety of other social disadvantages.

The University has provision of a full-fledged counselling cell at each department, which is comprising of Sr. faculty. One faculty for group of 20 first year students is designated as a counsellor. The counsellors regularly interact with students. Besides the students are also encouraged to interact with faculties in tutorials for academic reasons. The faculty through interaction identifies the slow learners and take remedial action as needed. The main findings are as follows.

- Students hailing from vernacular medium are not initially comfortable with teaching in English medium.
- Students hailing from vernacular medium and economically disadvantaged section are generally slow learners.

### **2.2.5 How does the university identify and respond to the learning needs of advanced learners?**

The advanced learners are identified by their academic performance and classroom discussions.

The learning needs of the advanced learners are addressed by providing them facilities and avenues for enriching their research and professional skills. The university undertakes IEDC projects and research assignments in consultation with industries. The advanced learners have opportunity to work with R&D department of University, which undertakes advanced projects funded by GUJCOST, DST, PRL etc. The University also provides opportunity to the PG students as teaching assistants. The advanced learners are also motivated for participation in national level competitions like Robocon, TechFest etc. and publication of their project work in reputed conferences and journals.

The university conducts/organizes specialized trainings and workshops for the research scholars. The departments also conduct seminars/workshop for advancing knowledge, skill and attitude of the students.

The university library subscribes to reputed research journals covering all subjects. The university provides e-learning facilities through access to e-resources. The whole university campus has Internet accessibility with a high connectivity and speed for better access to teaching, research and learning materials.

## **2.3 Teaching-Learning Process**

### **2.3.1 How does the university plan and organize the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?**

The university notifies its academic calendar every year. Each year the academic calendar is distributed among the students and staff on the very first day of their academic session. The academic calendar is prepared keeping in view the followings.

- Minimum teaching phase requirements

- Internal examinations
- Declaration of results based on continuous evaluation
- Designated time for attendance and evaluation review
- Practical examinations
- Extra-curricular activities/events
- End of current and Commencement of next academic sessions
- Vacations
- The date of convocation.

In the light of the academic calendar, the departments further develop their own teaching activities for the smooth teaching learning process (It is well documented and shared with the students). This includes the subject wise teaching details.

Over the years, the university has developed an effective system of examinations, evaluations and declaration of results. Each department strictly adheres to the guidelines for the same. The course evaluation is performed under various heads. These heads are identified as Sessional, Termwork, Practical and Theory. Appropriate weightage is assigned to all heads and evaluation is performed throughout the semester. Students are made familiar with the evaluation process.

For each semester-end examination, the results are declared before the commencement of next session/semester. The subject-wise database for students based on their performance during examinations (Pass/Fail/Absent) is prepared and maintained at each department. This also helps in identifying slow learners.

### **2.3.2 Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

**Yes.**

Each of the courses and subjects has well defined and structured content. Both, the detailed syllabus for each course and the micro-planning for each subject is notified to the students before commencement of the programme.

Further, in teaching of courses, the autonomy lies with the faculty members in the structuring and operationalization of their teaching activities. The outlines and timelines of respective courses and individual papers are explained to students at the time of counselling after admission.

The university has a de-centralized system, at the level of departments, for developing and structuring their course curriculums and modules. For that each department conducts Board of Studies meet, twice in a year and proposes changes in the curriculum, teaching scheme in order to make syllabus at par with other eminent universities and demand of industries. This proposed changes are duly approved by the Academic Council that meets once in a year.

The effectiveness of the course outline and scheduling is ensured by the respective faculty advisor and the head of the department. The informal feedback about the same is also obtained from the students in the middle of the semester.

**2.3.3 Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.**

**Yes.**

The university has a well-planned academic calendar for each year and accordingly the individual departments and faculty members plan their teaching so as to complete the courses within the stipulated time-frame. Till date, the university has not come across any unwarranted situation whereby the courses are not completed on time and as such the academic calendar has not been revised for these reasons.

Importantly, University organizes its convocation program as per the date mentioned in academic calendar, which is published well in advance i.e. at the time of orientation program. In case of any lectures or practical slots are missed due to some unavoidable reasons, extra classes are arranged. In a rare situation faculty members may swap their sessions.

In case of leave, faculty is required to compensate for their missed classes by conducting extra sessions. In cases of new programs, which are initiated at later dates, the academic calendar is re-scheduled well in advance and strictly followed.

**2.3.4 How learning is made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.**

The departments and faculty members adopt a variety of innovative practices to make teaching student-centric and a motivating experience. This is more so given the nature of students at DDU. The focus at DDU is on both teaching and training of students for overall development. Some of the innovative teaching-learning practices are:

- Lectures supported with handouts/power point presentations
- Visual narratives through documentary film screenings, video clips etc.
- Group Discussions
- Students' Seminars
- Regular feedback and mentoring
- Tutorials
- Expert Lectures
- Field/Industry Visits
- Industrial Training
- Projects as part of curriculum
- Live Projects
- Student chapter of professional bodies (ISTE/IEEE/ISRHRAE/SAE/CSI etc.)

Students are given the course outline and learning materials in advance and are expected to come to the classroom with sufficient preparation. There is a provision of continuous evaluation to the tune of 40%. It is basically formative evaluation and adds to the learning of students.



### **2.3.5 What is the university's policy on inviting experts / people of eminence to deliver lectures and/or organize seminars for students?**

The university has a system of inviting experts and people of eminence for wider exposure of the students.

First, each department invites subject experts for theme-based lectures. The honorarium rules are well defined at University. Most of these sessions are highly interactive in nature. These lectures are organized as public lectures and accordingly participation by students and faculty alike from other departments/schools is encouraged.

Second, the university also held has extension lectures at regular periods. In the extension lectures by eminent dignitaries, time is provided for interaction by the students.

Third, the university organizes public lectures by reputed scholars who can motivate and instill passion for learning among students.

Apart from the above, the university also has a week-long students' festival. During this week, the presence of dignitaries add value to the academic culture of the university. This is also the time when students get an avenue for participation and skill enhancement.

### **2.3.6 Does the university formally encourage blended learning by using e-learning resources?**

The whole university campus has high speed Internet connectivity and each student is provided with the password for access to quality e-networks. The students are encouraged for intensive use of e-learning facilities in the university in terms of wider access to research portals and e-journals via the university server.

Faculty members are also facilitated to use different ICT tools, softwares and online resources.

### **2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?**

Given the updated technology of Internet access with high speed connectivity in the university, there is an increasing trend among the faculty members for use of e-materials as also dissemination of study material to students and colleagues.

The use of visual narratives in the form of video clips, lectures (from NPTEL) and documentary films are initiatives in the same direction.

### **2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?**

In the university there exists an active users group, comprising of faculty and students, which works towards using and developing Open source software in their research and in education.

They enthusiastically train students to use LINUX, LATEX, SCILAB etc. Use of open source software is promoted in all departments. The students of B.Tech. and M.Tech. use LINUX operating systems exclusively for their practical and project works. They are also motivated to use LaTeX for technical documentation. Some faculty members are involved in the Sci-Lab Program Development on open source platform.

The university library committee takes initiatives on the recommendation of the departments for enhancing access of students and faculty members to wider e-learning avenues including open educational resource community.

**2.3.9 What steps has the university taken to orient traditional classrooms into 24x7 learning places?**

The University has high speed Internet connectivity which facilitates learning through access to e-resources (e-journals, e-books) and open educational resources etc. The University is a part of National Knowledge network. The University library is also open on 8 to 8 basis and provides access to all relevant books, journal volumes etc.

**2.3.10 Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.**

**Yes.**

The university has provision for full time mentors/advisers at department level for addressing the counselling needs of the students. The departments have constituted counselling cell consisting of senior faculty member as Students' Advisor. For first year students' one faculty member is appointed as a counsellor for a batch of 20 students; whereas, in higher semesters one faculty is appointed as counsellor to look after an entire class. Preferably the same faculty should remain as the counsellor for the same group during the groups' entire tenure at the University.

Counsellors interact with students on regular basis and keep track of their social, economic background and education progress. The minutes of mentoring reports are submitted to the concerned Head of the Department (HoD). The HoD takes necessary actions whenever required and if needed, may inform the concerned head of the institute. For the case where improvement is not seen, case is reported individually to the higher authority and if needed, parents are also informed for taking necessary actions.

**2.3.11 Were any innovative teaching approaches/methods/practices adopted/put to use by the faculty during the last four years?**

**\* If yes, did they improve learning?**

**\* What were the methods used to evaluate the impact of such practices?**

**\* What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?**

**Yes.**

A variety of innovative teaching practices are in use by the faculty members including tutorials, students' seminars, quizzes, role play, live projects, case studies, participatory learning and use of animations. The innovative and participatory teaching learning

process has increased the regularity and performance of the learners.

First hand assessment is done by the concerned faculty members and issues come out from blind feedback of students. The departments also convene their consultative departmental meetings to review the performance of students. The ancillary feedback on the effectiveness of innovative teaching practices is obtained through the continuous evaluation of the students.

As such there is no defined mechanism in place for due recognition to faculty members for innovation in teaching practices and 'beyond the class room' services that they render.

### **2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?**

The teaching learning environment in the university coupled with co-curricular and extra-curricular activities has contributed in nurturing creativity and scientific temper among the learners. The talks by experts, extension lectures and academic fests that are organized at multiple levels in the university have impacted the students' aptitude and participation as evidenced by the nature of their interactions and attendance in these events.

The university nurtures the creativity and scientific temperament among the learners by giving projects and challenging assignments to the students. There are several students' associations in the University. Through these, the students regularly organize various activities including creativity, research and skill based activities.

Every year DDU celebrates Techno-Cultural week to promote a culture of instilling and nurturing creativity and scientific temper among the learners.

Apart from these, in the class room participatory pedagogy nurtures creativity and scientific temper amongst the students.

### **2.3.13 Does the university consider student projects mandatory in the learning programme?**

**If yes, for how many programmes have they been (percentage of total) made mandatory?**

**\* Number of projects executed within the university**

**\* Names of external institutions associated with the university for student project work**

**\* Role of faculty in facilitating such projects**

**Yes.**

All UG and PG programs (100%) have made project work/dissertation a compulsory requirement in their course curriculum. Further, the project work/ dissertation is undertaken in collaboration with industries, non-governmental organizations and civil society organizations depending on the nature of course. The students also have opportunity undertake IEDC projects.

Groups of students are placed under the direct supervision of faculty members for training in industry. The faculty members guide, support, supervise and evaluate the performance

which is added to the overall credits/marks obtained by the students. Some students have been sanctioned projects by reputed organizations; e.g. ISRO, PRL, IPR, KHS, etc. Even if the student is pursuing project in a firm, an internal guide is appointed, who is responsible for overall mentoring and monitoring of project. When required, an internal guides contacts the industry guide for maintaining the quality of project and fulfilling other academic requirements.

**2.3.14 Does the university have a well-qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?**

The university has well qualified faculty members who attend to the requirements of the curriculum. The university has convened series of selection committees to address the manpower needs of the departments on regular basis.

Further, in case of faculty requirement on urgent basis/short fall of staff in the course of the academic session, the university administration permits the appointment of guest/visiting/adjunct faculty after due process of local advisory committees.

The PG students, those are identified as advanced learners, are also considered as teaching assistants to bridge the gap.

**2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the university for such efforts?**

Faculty members across disciplines are well versed in computer techniques and they make frequent use of computer-aided teaching-learning material. The frequency of computer-aided teaching learning and use of ICT varies depending on the nature of courses.

Further, all faculty members are provided with computers and related accessories. The faculty members make use of teaching assistants who can help them in creating presentations and many of times in recording of simulation through several free tools available online. The classrooms are internet ready for usage. Many of classrooms have the facility of LCD projectors and a few centers also have smart classrooms.

**2.3.16 Does the university have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?**

**Yes.**

The feedback from students on the quality of teaching and performance of faculty members is obtained via blind feedback forms provided by the university to the departments. The feedback from students is taken twice in a Semester and the same being monitored up to Management level under IQAC.

The individual departments keep track of the teaching-learning process through regular interactions with students by the heads of the departments and senior teachers. These initiatives help in improving their retention, regularity and performance parameters.

## 2.4 Teacher Quality

### 2.4.1 How does the university plan and manage its human resources to meet the changing requirements of the curriculum?

The departments revise their curriculum regularly to keep pace with changing times. The faculty members are an integral part of any changes in curriculum and accordingly, they attend to the need of updating the knowledge about the course design and curriculum development. The faculty members are allowed and encouraged to undertake Orientation and Refresher courses to update their knowledge and skills. If there is a new curriculum, as per the requirements, new faculty members are recruited. There is also a provision for inviting outside expert as visiting faculty.

The University conducts regular thematic and skill enrichment workshops for faculty members across the country including the DDU faculty.

### 2.4.2 Furnish details of the faculty.

Highest Qualification	Professors		Associate Professors		Assistant Professors		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D.Sc./D.Litt.	0	0	0	0	0	0	0
Ph.D.	14	1	14	0	7	2	38
M.Phil.	0	0	0	0	1	2	03
PG	12	6	18	5	99	39	179
UG	0	0	0	0	31	21	52
<b>Temporary teachers</b>							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0
UG	0	0	0	0	13	4	17

### 2.4.3 Does the university encourage diversity in its faculty recruitment? Provide the following details (department / school-wise).

Department/School	% of faculty from the same University	% of faculty from other Universities within the state	% of faculty from Universities outside the state	% of faculty from other countries
Faculty of Technology	29%	64%	5.63%	1.37%
Faculty of Dental Science	80%	5%	15%	0%
Faculty of Pharmacy	0%	90%	10%	0%
Faculty of MIS	17%	75%	8%	0%

**2.4.4 How does the university ensure that qualified faculty are appointed for new programmes / emerging areas of study (Bio-technology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?**

The University has an established policy for recruitment of faculty members through proper advertisement and general selection committee as prescribed in university ordinances. The university is quite particular in having maximum strength of panellists for selection committees. The university is recruiting faculty in emerging and relevant areas for India especially in sciences. The numbers of faculty members appointed during last four years is tabulated below.

Department/School	Faculty Members Recruited during last four Years ( 2011-2015 )			
	Professors	Associate Professors	Assistant Professors	Total
Faculty of Technology	0	0	42	42
Faculty of Dental Science	2	0	7	9
Faculty of Pharmacy	1	2	2	5
Faculty of MIS	0	0	4	4

**2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the university?**

The university has a duly approved system of finding and searching the Senior Professors of high repute and expertise and inviting them for academic interactions. These scholars of eminence have contributed in putting the system of teaching and learning in place especially in new departments.

A few centers have a mandate approved by appropriate authorities of having floating positions in their respective units. Dr. D. O. Shah serves as a mentor of SSCNST for every 6 months.

**2.4.6 What policies/systems are in place to academically recharge and rejuvenate teachers (e.g. providing research grants, study leave, nomination to national/international conferences/ seminars, in-service training, organizing national/international conferences etc.)?**

- The university has an established policy for providing study leave for young faculty members for completing their doctoral research work.
- The faculty members are encouraged to approach funding agencies for grants for the organization of seminars/conferences. In support the university provides the supplement grants to the tune of 1 lakh.
- Over the years the departments and individual faculty have organized a number of conferences/seminars in collaboration and funding support from UGC, ICSSR and other professional bodies.

- The faculty members are also encouraged to propose/attend national/international conferences and the university provides support in terms of traveling grants and duty leave subject to fulfilment of conditions like quality of research work and status of inviting institutions.
- The university has in place a committee for finalizing the Minor/ Major Research Projects proposed by the faculty members.

**2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?**

<b>Sr. No.</b>	<b>Faculty receiving Awards</b>	<b>Name of Award</b>	<b>National / International Professional Bodies</b>
1	D.J.Vyas	THE BEST TEACHER AWARD – Dec 2010	ISTE, Dec 2010
2	Jalesh Purohit	Best Paper – RSS	IIT Bombay, 2012
3	Manish Mishra	Dr. D.O. Shah Research Excellence Award	SSCSSN DDU, 2013
4	Manish Mishra	DDU Achievers Award	DDUAA, 2013
5	B. N. Suhagia	Outstanding Achievement award	APP, 2013
6	Tejas B Patel	Best Oral Presentation	APP, 2013
7	Mrudang Mehta	Best Research Paper	IEEE ICCIC 2014
8	Jigar M Pandya	Faculty Excellence Award	Infosys Campus Connect Team - 2014
9	Naresh Patel	Fulbright Scholar	Fulbright-Nehru Scholarship, US, 2014
10	P. A. Joshi	Excellence in Education	Gujarat Chemical Association, 2014
11	Manish Thakkar	DDU Achievers Award – 2014	DDUAA, 2014
12	Naresh Patel	DDU Achievers Award – 2014	DDUAA, 2014
13	P. A. Joshi	Life time achievement Award	DDUAA, 2014
14	Chirag Dalal	promoting techno-entrepreneurship in University	IEDC of Gujarat, 2014
15	Hariom Pandya	Faculty Excellence Award	Infosys Campus Connect Team - 2015

**2.4.8 How many faculty underwent staff development programmes during the last four years (add any other programme if necessary)?**

<b>Academic Staff Development Programmes</b>	<b>Number of faculty</b>
Refresher courses	14
HRD programmes	17
Orientation programmes	32
Staff training conducted by the university	91
Staff training conducted by other institutions	207
Summer / Winter schools, workshops, etc.	118

**2.4.9 What percentage of the faculty have**

<b>Particular</b>	
been invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies?	12.5%
participated in external Workshops / Seminars / Conferences recognized by national / international professional bodies?	89.81%
presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?	70.58%
teaching experience in other universities / national institutions and other institutions?	16.17%
industrial engagement?	11.39%
international experience in teaching?	< 1%

**2.4.10 How often does the university organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?**

The university has a very clear policy with reference to curriculum development. The decentralized process of curriculum planning and development at the level of departments, contributes to the continuous training of the faculty members. The intensive deliberations that take place during the process of curriculum development are of great help and value to the young faculty members for shaping their teaching learning abilities and approaches. Further the departments also have in-house consultations for reviewing and enriching their teaching-learning process. This meet is usually planned every 6 months.

With reference to examination reforms, the office of the controller of examinations and the university level committee for examinations review and revise the examination process where and when the need arises.

The outcome of departmental BOS meet and examinations review is placed in Board of Governors for approval. This meet is held twice in a year. The details are widely shared with the faculty members, and accordingly they are kept updated of developments in curriculum, examination and assessment patterns.



Further the faculty members are encouraged to participate in skill enhancement workshops and trainings for enriching teaching learning process.

**2.4.11 Does the university have a mechanism to encourage the followings?  
If yes, how have these schemes helped in enriching the quality of the faculty?**

**\* Mobility of faculty between universities for teaching?**

The university provides duty leave to faculty desirous of (1) moving to other institutions on vertical and horizontal positions (2) conducting expert session (3) examining students.

This helps in developing networking with the other universities and national/international bodies. Besides, the expertise gained by the faculty members brings new perspectives in their teaching.

**\* Faculty exchange programmes with national and international bodies?**

No

**2.5 Evaluation Process and Reforms**

**2.5.1 How does the university ensure that all the stakeholders are aware of the evaluation processes that are in place?**

The details of policies and changes in the process of examination and evaluation are well notified and placed on the university website. The administrative department facilitates in the dissemination of such information among the students. During the orientation programme, the evaluation process is explained in detail to the students and the parents. The parents are encouraged to understand the evaluation system and urged to track academic performance of their ward.

Over the years, the office of the controller of examinations has been fully developed and taken many initiatives for making the process of evaluation transparent and accountable. There are notified guidelines in place and implementation of the same is ensured.

The recruiters are explained the evaluation process through brochure and if they have any queries, those are addressed to. The evaluation system is also described at the back of the mark-sheets.

**2.5.2 What are the important examination reforms initiated by the university and to what extent have they been implemented in the university departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.**

Consequently to the examination reforms initiated by the university over the years, there is a strict time-bound system for the conduct of examinations as also the process of appointment of examiners and the timelines for the declaration of semester end exam results, rechecking and revaluation of scripts.

The detailed rules, guidelines and formats (in form of academic calendar) are available at the university website for easy access by students. In the evaluation system, the following components are incorporated.

- Monthly tests.
- Seminars
- Assignments
- Mini Projects

**2.5.3 What is the average time taken by the university for declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the university for the publication of examination results ( e.g. website, SMS, email, etc.).**

The semester end exam results are declared within one month of examination and as a norm the semester end results are declared before the commencement of the new semesters. The results of midterm examinations are declared with a week. Till date there is no delay observed in the declaration of results.

The results are placed on the university website and also on the notice boards of the respective departments. The administrative department forwards the results to students via emails, SMS and University website. The university strictly adheres to the academic calendar for declaration of results and convocation.

**2.5.4 How does the university ensure transparency in the evaluation process? What are the rigorous features introduced by the university to ensure confidentiality?**

The university ensures both transparency and accountability in the evaluation process. The results are declared in a time bound manner and placed on the university website. The students can also approach the University for rechecking of their scripts or re-evaluation of the same if they so desire. There is an established system of rechecking and revaluation and detailed guidelines are available on the university website.

The university has established high standards of confidentiality in the appointment of examiners and evaluation of scripts. Each department of studies has to submit the panel of examiners duly approved by their respective BOS to Academic Council. The panel of examiners is updated from time to time. It is from the list of panel of examiners that the respective department is required to submit a panel of four examiners for each paper. Each year, the appointed chairman is required to submit 2 copies of question paper. From previous years unexposed question papers and the question papers submitted during the current year, any one is selected by the vice-chancellor/controller of examiner. This ensures confidentiality regarding the selection of question paper. In some of the courses and programs of study there is a system of double evaluation.

**2.5.5 Does the university have an integrated examination platform for the following processes?**

**\* Pre-examination processes (Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.)**

The detailed timetables for the examination are centrally developed and published by the office of the controller of the examinations for each course and program. The controller's office also announces the dates for the submission of examination forms and notifies the

process of collection of application forms. Examinee data sheet is prepared by the administrative office and submitted to the controller's office. The controller's office, after due verification, issues admit cards through the concerned department.

The process of the conduct of interim exams is de-centralized at the level of the departments whereby the heads of the departments are appointed as additional superintendents for the smooth and fair conduct of examinations.

The process of the conduct of end semester exams is centralized whereby the supervisors across the departments are appointed for the smooth and fair conduct of examinations.

**\* Examination process (Examination material management, logistics, etc.)**

The support system including logistics and remuneration etc. are taken care of by the office of the controller of examination.

**\* Post-examination process (Attendance capture, OMR based exam result, auto processing, generic result processing, certification, etc.)**

The university uses generic result processing, attendance capture and data processing for the speedy evaluation and results. For that a fully customized software is developed and in use.

**2.5.6 Has the university introduced any reforms in its Ph.D. evaluation process?**

No

**2.5.7 Has the university created any provision for including the name of the college in the degree certificate?**

The degrees are given by DDU, duly signed by the Vice Chancellor. Since, there are no affiliating colleges, name of the college is not included in the degree certificate.

**2.5.8 What is the mechanism for redressal of grievances with reference to examinations?**

The examination process is totally transparent. After the internal examinations, the faculty members provide solution during classroom discussion. The aggrieved students also approach the university in person for rechecking of scripts or re-evaluation of the same. For this, there is an established system and detail guidelines are available on the university website. The University declares the result of re-evaluation or re-checking within stipulated time period.

The students confined with unfair attempts during examination have to face vigilance committee and suitable action is taken as per the recommendations and University norms.

**2.5.9 What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.**

The university has in place an effective office of the controller of examinations, at present

headed by a senior professor of the university along with administrative staff and facilities. The office of the controller of examinations has proactively initiated many reforms in the system of examination and evaluation. Few of them are listed below.

- A significant achievement is the development of elaborate rules and regulations for the smooth conduct of exams and evaluation and all related matters.
- The task of conducting internal examination is delegated at faculty level. For that faculty members are appointed as exam coordinators.
- At institute level, Exam coordinator, senior supervisors and factotum are appointed to ensure smooth conduct of the end-semester examination. In addition, departments provide the Junior Supervisors.
- The question papers are printed on the day of examination and within the Examination office premise in order to maintain strict confidentiality.
- Answer sheets pertaining to the end-semester examinations are assessed at Central assessment center.
- To address the grievance of students proactively, detailed guidelines are formulated and posted on the university website.

## **2.6 Student Performance and Learning Outcomes**

### **2.6.1 Has the university articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?**

DDU defines the graduate attributes of its stakeholders as follows:

- Excellence in academics
- Critical thinking
- Communicative skills
- Social responsibility
- Thoughtfulness
- Intellectual curiosity
- Self-awareness regarding strengths and weaknesses
- Awareness of ethical values
- Diversity of potential
- Humane literacy

Every university perceives an ideal graduate profile in terms of its own objectives and broad philosophy of education. DDU is a university with a special character in the sense that the students' community belongs to dignified first generation learners. However, DDU believes that among the under-privileged stakeholders it is yet possible to discover excellence of varying order.

The University strives to discover and admit such talented youth and refine them towards becoming assets to nation building. The university strives to create conducive environment for such students by allowing them to be independent learners and creative thinkers. On the, the University follows a learner-centric approach in all respects.

**2.6.2 Does the university have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?**

The learning outcomes as defined by the university are the focal point of the University. Each year, the university prospectus is published containing specific details including the vision, mission and expected learning outcomes for the prospective learners. The students and parents are also briefed about the same during orientation programme.

As such, all programs are structured around the effective realizations of these objectives. Each department has autonomy in working-on and developing course curriculums with specific learning objectives and outcomes. The departments develop their courses and learning objectives in view of the overall mandate of the university. Further, some departments also provide learning objective/expected learning/expected outcome with reference to each course which is of much help to the faculty as well as learners. In this way the learning outcomes are taken care of at both macro and micro levels.

**2.6.3 How are the university's teaching, learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?**

The University's teaching, learning and assessment strategies are structured in view of the larger mandate of the university. Autonomy at the level of the departments has helped in developing the course curriculum in tune with the mandate of the university and the specific nature of students enrolling at DDU. This, coupled with a transparent and accountable system of examination and evaluation, has helped in improving the outcomes.

The 75% attendance during teaching sessions is made mandatory for students. This has inculcated tremendous seriousness in students for learning. The evaluation strategy through 3 internal examinations and immediate declaration of results help in identifying the obtained performance and scope for further improvement. The students are also benefitted by means of periodic evaluation before commencement of end-semester examinations. In fact many of the students found them well-prepared for the end-semester examinations that is reflected in overall performance.

**2.6.4 How does the university collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?**

The departments collect information regarding learning outcomes of students on each program by tabulating the results of the internal assessment as well as end-semester examination. This information helps to identify the good learners and poor learners.

The University also gathers information from various departments through the analysis of feedback forms. Based on all this, the University sets about to address the lacunae through mechanisms like remedial teaching, assignments, quizzes, mentorship and other special programs like workshops, seminars, expert talks etc. In some cases, the feedback information is used to incorporate changes in the pedagogy.

### **2.6.5 What are the new technologies deployed by the university in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?**

The well-equipped computer labs with full-fledged *Internet* access have facilitated the students in having wider access to knowledge gateways. Keeping in view that English is the medium of instruction and the background of aspirants entering to DDU, the university has made teaching of ‘Communication Skills’ compulsory for all UG programs. This primes their interest and boosts their confidence in the use of ICTs.

The departments ensure availability of syllabus, lesson planning, handouts, assignments and other teaching material amongst the students. The departments are also facilitated for making class room teaching more ICT enabled and encourage the routine sharing of study material via e-resources.

The university has also experimented with the process of online system of examination along with traditional mode.

The office of the controller of examination is consistently working at making extensive use of available technologies for ensuring a more transparent evaluation system.

## CRITERION III - RESEARCH, CONSULTANCY AND EXTENSION

### 3.1 Promotion of Research

#### 3.1.1 Does the university have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.

**Yes.**

The university has formed Board of Research Studies (BoRS) to facilitate and monitor the research activity/progress of Industrial/Government funded projects. The BoRS consists of Vice Chancellor, Registrar, Deans of various faculties and senior professors.

The major functions of BoRS are, (i) To frame rules and regulations for research programme (ii) To monitor progress of research projects (iii) To maintain high quality standards in teaching and research matching with Mission and Vision of University (iv) Implementation of new initiatives/policies as suggested by various government agencies/regulatory bodies.

BoRS suggested recommendations to improve the research culture in University. Some of the noteworthy recommendations implemented are listed below.

- Prepared policy for research programme, ensuring quality of research, integrating research with PG teaching scheme
- Established various Centers of Excellence/research centers in different emerging areas at University
- Encouragement for interdisciplinary projects
- Encourage faculty members to join research programme
- Organize research oriented seminars/workshops on various topics like scientific report writing, awareness of LaTeX software, Patent filing, awareness about various funding agencies/schemes of government

Admission to the Ph.D. program is based on a written test in the chosen field conducted by the university once in a year. The selected candidates have to undergo coursework as prescribed by the supervisor. On successful completion of coursework he/she is registered as a research scholar.

Under the guidance of BoRS, individual Research Progress Committee (RPCs) monitors the research progress of research scholar. RPC consists of minimum the supervisor and one external expert from subject area who review the progress of research work at regular intervals of six months. The research scholar has to incorporate suggestions and recommendations of these experts to improve the quality of research work. Before the pre-synopsis submission stage the research scholar has to go minimum of 4 RPC reviews. Before submission of the final thesis the research scholar must have minimum 1 paper published in a peer reviewed international journal. For the final evaluation of thesis/research work, based upon list of examiners suggested by the Supervisor, University nominates two external examiners to maintain high standard of evaluation. Out of two external examiners, one examiner is from a foreign University and other external examiner is from any reputed University outside Gujarat.

Admission to the PG programme is based on the written test conducted by Joint Admission Committee of Government of Gujarat. University integrates research work as a part of PG syllabus in final year.

The University developed "Research and Development Center" which is primarily working in the area of Information and Communication Technology. The University has established Center for Surface Science and Nanotechnology to promote research in the area of Nanotechnology and its applications in Industrial world. The University has also established Center of Excellence in Automation Technologies with collaboration of Bosch Rexroth.

The University believes that development of faculty members directly improves quality of education. It encourages faculty members to pursue PG and Doctoral programs under Quality Improvement Program (QIP) to institutes of national repute. It also promotes faculty members to pursue Master degree and Ph.D. on part-time basis within the University. In either case faculty members get regular salary. Part-time Sponsored internal candidates are also given work load relaxation of upto maximum 50%. As a result of these initiatives, 25 faculty members have completed M.Tech. and 9 faculty members have completed Ph.D. either from our university or from other universities during last five years.

The University also encourages faculty members by providing sponsorship to register for National and International Conferences and present their research outcomes along with providing duty leave to attend the same.

### **3.1.2 What is the policy of the university to promote research in its affiliated / constituent colleges?**

Being a unitary state university, there is no affiliated college. The constituent college was established in 2015 and under IQAC, the University research committee provides all strategic back up and promotion of research required by them.

### **3.1.3 What are the proactive mechanisms adopted by the university to facilitate the smooth implementation of research schemes/ projects?**

#### **\* advancing funds for sanctioned projects**

On request of Principal Investigator (PI) of sponsored funded projects, the University may consider providing advance funding if recommended by BoRS.

#### **\* providing seed money**

It is proposed to allocate seeding amount upto Rs 1 Lac to individual faculty members making a successful presentation before the expert committee formed by BoRS. This proposal is under consideration of the Board of Governor's.

#### **\* simplification of procedures related to sanctions / purchases to be made by the investigators**

As per the approved budget and list of equipments/consumables of sanctioned project, PI can procure equipment/s or consumables through Purchase Committee as per University guidelines.



**\* autonomy to the principal investigator/coordinator for utilizing overhead charges**

Overhead charges are given to the University as part of utilization of its infrastructural and instrumentation facility along with manpower. This fund can be utilized by PI based on request after approval of higher authority in any extingencies. Apart from this fund, contingency fund is available for each project and here the PI has full autonomy of utilization.

**\* timely release of grants**

After receiving the sanction letter from funding agency, University releases grants to PI as and when required based on his/her request. PI has to take care of procurement of the equipments/consumables and recruitment of research assistant if required and approved under the project head as per university norms.

**\* timely auditing**

The University facilitates auditing of accounts of each project by University Accounts Section/ independent auditing agency as per requirement of funding agency.

**\* submission of utilization certificate to the funding authorities**

On completion of project or for ongoing project, the University provides utilization certificate after due verification based on the request of PI as per the conditions laid down by the funding agency. The same is sent to the appropriate funding agency for the release of next installment of grant if applicable.

### **3.1.4 How is interdisciplinary research promoted?**

University has taken several steps to encourage and promote interdisciplinary research activity and encourage its faculties for submission of interdisciplinery minor/major projects to funding agency.

**\*between/among different departments /schools of the university**

University promotes interdisciplinary research through the recognition of research guides in linked subjects. University also encourages departments and faculty members to submit minor/major research proposals to various funding agency under this category.

In recent past, University established Shah-Schulman Center for Surface Science and Nanotechnology (SSCSSNT) in collaboration with Government of Gujarat and leading chemical industries. This state of the art facility has been created to pursue research in the field of Technology (mainly chemical engineering), basic sciences and pharmacy. As an outcome of this center, 47 research articles have been published and has presently completed/ongoing 20 minor and 05 major projects. Some of these projects involved faculty members from different departments of FoT and some involved inter faculty members (FoT+FoP).

University also established Research and Development Center with focus on Information and Communication Technology to promote inter disciplinary research activity.

**\*collaboration with national/international institutes / industries.**

There is a need of present era to do collaborative research work with national/ internationally reputed institutes to promote research through:

- (i) MoUs with other institutions/industries , Examples under this head are:
- MoU with CPaSS (Center for Particulate and Surfactant Systems), supported by University of Florida, Gainesville, FL and Columbia University (CU), New York, USA, which is recognized by the National Science Foundation (NSF), USA
  - MoU with Gujarat State Biotechnology Mission ( GSBTM)
  - MoU with Anand Agricultural University (AAU)
  - MoU with Reliance Industries
- (ii) Undertaking joint supervision for M.Tech./M.Pharm and doctoral programme with institutes/industries (ISRO,SAC,PRL,IPR,CSMCRI-Bhavnagar)
- (iii) Conduct joint research programme/conferences/workshop/seminar with reputed institutes/industries on latest trends in industries and in upcoming area on regular basis, Examples under this head are:
- Seminar on ‘Nanocarriers: Novel Tool As Drug Delivery System’ conducted by Faculty of Pharmacy in association with GUJCOST in 2013
  - Seminar on ‘Medical health and self defense mechanisms for women’s better health and wealth’ conducted by Faculty of Pharmacy in association with GUJCOST in 2014-15.
  - Seminar on ‘Recent advancement in Biotechnology & Bioinformatics’, conducted by Faculty of Pharmacy in association with GSBTM Gujarat, 2011-12.
  - Seminar on ‘Training & Hands on Molecular Biotechnology Tools and Techniques’ conducted by Faculty of Pharmacy in association with DBT, New Delhi, 2012-13.
  - A Training programme on “Chromatographic & Spectroscopy Techniques”, March 06<sup>th</sup>-08<sup>th</sup>, 2014 conducted by Chemical Engineering department & Shah-Schulman Center for Surface Science & Nanotechnology and Organized by Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad in support with Thermofischer and Agilent.
  - ISTE approved training programme on Advanced Instrumental Methods of Analysis, February 9<sup>th</sup>-13<sup>th</sup>, 2015, conducted by Chemical Engineering Department and Shah-Schulman Center for Surface Science & Nanotechnology and organized by Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad In support with Thermofischer, Agilent and Mettler Toledo.
  - International Conference on “Surface Science and Nanotechnology in Biomedical, Pharmaceutical & Engineering systems” (ICON-NANO 2013) from 10-12th December 2013, supported by GUJCOST (Department of Science and Technology, Govt. of Gujarat).
  - Industries Institute Interaction with GNFC on 20/12/2014, 10/01/2015,07/02/2015,14/03/2015, conducted training programs by chemical engineering department at Dharmsinh Desai University, Nadiad.

### **3.1.5 Give details of workshops/ training programmes/sensitization programmes conducted by the university to promote a research culture on campus.**

To promote research culture on campus, University organizes various conferences/workshops/training programmes as per the current trends in research and as per requirement of industries.

Various technical sessions were arranged by inviting renowned persons/scientist/faculty members from different research organizations/industries/institutes. Some of the examples are highlighted here.

1. Workshop on “Surfactants: Fundamentals and Applications”, March 11<sup>th</sup>-12<sup>th</sup>, 2015 conducted by Shah-Schulman Center for Surface Science & Nanotechnology at Dharmsinh Desai University, Nadiad.
2. ISTE approved training programme on Advanced Instrumental Methods of Analysis, February 9<sup>th</sup>-13<sup>th</sup>, 2015, conducted by Chemical Engineering Department and Shah-Schulman Center for Surface Science & Nanotechnology and organized by Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad.
3. ISTE approved training programme on Industrial Automation, 20/4/2015 to 1/5/2015, conducted by Chemical Engineering Department and Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad.
4. ISTE approved training programme on Computational Fluid Dynamics using ANSYS, 25/05/2015 to 05/06/2015, conducted by Chemical Engineering Department and Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad.
5. Industries Institute Interaction with GNFC on 20/12/2014, 10/01/2015, 07/02/2015, 14/03/2015, conducted training programs by chemical engineering department at Dharmsinh Desai University, Nadiad
6. Three days training programmed on ‘Molecular and Microbial Biotechnology Tools & Techniques’ conducted by Faculty of Pharmacy in association with DBT, Delhi in 2015
7. Three days training programmed on ‘In-Vitro Biologicals Models & Their applications in Drug discovery’ conducted by Faculty of Pharmacy in association with DBT, Delhi in 2015
8. Seminar on ‘Medical health and self defense mechanisms for women's better health and wealth’ conducted by Faculty of Pharmacy in association with GUJCOST in 2014-15
9. One day Training programme on ‘PCB Design’ conducted by Department of Electronics and Communication in association with DDU IEEE Student Branch, 21/2/2015
10. One day Training programme on ‘Simulation of Digital Logic using verilog’ conducted by Department of Electronics and Communication in association with DDU IEEE Student Branch, 28/2/2015
11. Six week training programme on ‘TEDP in PLC & SCADA’, organized by Department of Instrumentation Engineering fully funded by DST NSTEDB Supported by EDI, Ahmedabad during 27/4/2015 to 6/6/2015
12. ISTE approved one week summer school on ‘Factory Automation and Embedded Systems’, organized by Department of Instrumentation Engineering during 11/6/2015 to 16/6/2015.

13. A Training programme on “Chromatographic & Spectroscopy Techniques”, March 06<sup>th</sup>-08<sup>th</sup>, 2014 conducted by Chemical Engineering department & Shah-Schulman Center for Surface Science & Nanotechnology and Organized by Anchor Institute (Chemicals & Petrochemicals Sector) at Dharmsinh Desai University, Nadiad.
14. One day Training programme on ‘Research Presentation using LATEX’ conducted by Department of Electronics and Communication in association with DDU IEEE Student Branch, 26/7/2014
15. One day training programme on ‘Interplanetary Missions’ conducted by Department of Electronics and Communication in association with DDU IEEE Student Branch, 2014.
16. Six week training programme on ‘TEDP in Hybrid low power mix signal micro controller & microprocessor’, organized by Department of Instrumentation Engineering fully funded by DST NSTEDB Supported by EDI, Ahmedabad during 2/5/2014 to 16/6/2014
17. International Conference on “Surface Science and Nanotechnology in Biomedical, Pharmaceutical & Engineering systems” (ICON-NANO 2013) from 10-12th December 2013, supported by GUJCOST (Department of Science and Technology, Govt. of Gujarat)
18. Workshop on “Micellar Dynamics, Catalysis & Solubilization” 12th March 2013 Jointly organized with Anchor Institute (Govt of Gujarat)
19. Seminar on ‘Nanocarriers: Novel Tool As Drug Delivery System’ conducted by Faculty of Pharmacy in association with GUJCOST in 2013
20. Seminar on ‘Training & Hands on Molecular Biotechnology Tools and Techniques’ conducted by Faculty of Pharmacy in association with DBT, New Delhi, 2012-13.
21. Seminar on ‘Hands on Animal Cell Culture Technique: Application in Cellular Biotechnology study’, conducted by Faculty of Pharmacy in association with DBT, New Delhi, 2012-13.
22. 3-Days workshop on “Intensive Introduction on Lab VIEW”, organized by Department of Instrumentation Engineering during 19,20,27 January,2013.
23. A workshop on “Surface Science and Nanotechnology in Pharmaceutical Systems”, 25-26 February- 2012
24. Seminar on ‘Recent advancement in Biotechnology & Bioinformatics’, conducted by Faculty of Pharmacy in association with GSBTM Gujarat, 2011-12
25. Seminar on ‘Embedded system Design Issue’, conducted by Department of Electronics and Communication, 17/2/2012.
26. Seminar on ‘Digital to Analog converters & Design Temperature Sensor Circuit’, conducted by Department of Electronics and Communication, 15/2/2012.
27. A workshop on “Current Advances in Nanotechnology”, 17th October 2011
28. A workshop on “Surface Science and Nanotechnology”, December 16th and 17th – 2011
29. Two day seminar on ‘Analog & Digital CMOS Design and Optimization’, conducted by Department of Electronics and Communication in association with DDU IEEE Student Branch, 12-13 March,2011.
30. Seminar on ‘Mathematics, Reality & Technology’, conducted by Department of Electronics and Communication, 21/1/2011.
31. Seminar on ‘Robotics’, conducted by Department of Electronics and Communication, 10/1/2011.
32. Seminar on ‘Electrical Power and Switchgear’, conducted by Department of Electronics and Communication, 22/1/2011.
33. Seminar on ‘GSM Technology’, conducted by Department of Electronics and

- Communication, 16/9/2011.
34. Seminar on ‘Satellite Communication & its Application’, conducted by Department of Electronics and Communication, 21/9/2011.
  35. Seminar on ‘Challenges in Wireless Broadband’, conducted by Department of Electronics and Communication, 24/9/2011.
  36. Workshop on Surface Science and Nanotechnology (For Academia and Industries) conducted on February 2-3, 2010 under the Govt. of Gujarat Industries and Mines program at DDU
  37. Seminar on ‘Dissolution Enhancement Techniques’ conducted by Faculty of Pharmacy, DDU in 2010
  38. Seminar on ‘Project Management’, conducted by Department of Electronics and Communication, 16/9/2010.
  39. Seminar on ‘Multiple Access Techniques & DSP Processor Architecture’, conducted by Department of Electronics and Communication, 11/12/2010.
  40. Seminar on ‘Semiconductor Landscape: An overview’, conducted by Department of Electronics and Communication, 21/12/2010.

### **3.1.6 How does the university facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the university?**

University invites eminent research personality to deliver expert talk on various platforms like seminar/workshops/conferences and share their knowledge with faculty members and students.

University also invites eminent personality to visit the campus as Adjunct Professor or Visiting Professor to cultivate research culture in young minds. University expects them to provide research guidance to faculty members and students. For example,

- (i) University invited Dr. Dinesh O. Shah (Professor Emeritus Dept. of Chemical Engineering, and Dept. of Anesthesiology, University of Florida) to establish Shah-Schulman Center for Surface Science and Nanotechnology. Dr. Shah spends four to six months time at SSCSSN center every year and shares his research experience with faculty members and research scholars. As a result of this initiative, more than 20 research articles are published and 4 research scholars obtained PhD degree based on their research work under the guidance of Dr. D.O. Shah at DDU.
- (ii) Dr. Manu Multani from TIFR visited university in the year 2012-13 and shared his expertise with faculty members and research scholars.

Similarly so many eminent researchers/professors visited the University to boost the research programme. Some of the names are, Prof. S.S. Bhagawat (UIC, Mumbai), Dr. Ashutosh Sharma (IIT-Kanpur), Dr. Ashok Ganguly (IIT-Delhi), Dr. Nitin Padhiyar (IIT-Gandhinagar), Dr. V.C. Patel (UIOWA), Dr. M.L. Kansal (IIT-R), Dr. Ravindra Dholakia (IIMA), Prof. Shailesh Gandhi (IIMA), Dr. D. M. Pestanji (IIMA), Dr. C.J. Shishoo (PERD Center Ahmedabad), Dr. S. P. Adesara (Ex-Commissioner, FDCA, Gujarat), Dr. Ketan Patel (CMD, Troikaa Pharma), Dr. Lal Hingurani (MD, Phrmanza Herbals).

As an outcome of these initiatives, the awareness and quality of research has increased and more numbers of research proposals are submitted to various funding agencies.

**3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.**

The budget of Reasearch and Department of DDU is Rs 100 lacs for the year 2014-15

Year	Budget spend (Rs. in lacs)	Budget allocated (Rs. in lacs)	% Utiliazation
2010-11	89.25	90.00	99.16
2011-12	120.49	90.00	133.86
2012-13	61.30	65.00	96.39
2013-14	83.52	80.00	104.40
2014-15	103.74	100.00	103.74

**3.1.8 In its budget, does the university earmark funds for promoting research in its affiliated colleges? If yes, provide details.**

Not Applicable

**3.1.9 Does the university encourage research by awarding Post Doctoral Fellowships/Research Associate ships? If yes, provide details like number of students registered, funding by the university and other sources.**

**Yes.**

The University encourages research by awarding Post Doctoral/Doctoral Fellowships/Research Associate ships. Mrs. Jyoti Vashishth did her Post Doctoral studies in SSCSSN. As a young university the number of doctoral fellowships/Research Associates is on the rise and several research associateships for full time PhD / Masters Students have been offered for funded projects.

Sr. No	Name of student	Department and funding agency	Grant in INR	Date of start	Sanctioned period in Years
1	Manish Dixit	Chemical engineering (GUJCOST)	540000/-	2010-2013 completed	3
2	Manu Vashishtha	SSCSSN- Chemical engineering, IFM fund	540000/-	2011-2014 completed	3
3	Kamlesh Tayade	Chemical Engineering, DST	450000/-	2011-2014 completed	3
4	Sajid Mogal	Chemical engineering, UGC- MANF	750000/-	2011-2014 completed	3
5	Vidhi Shah	SSCSSN, DST	220000/-	2013-till date ongoing	3

6	Krupali mehta	Industrial project, Hishine inks	288000/-	2013-ongoing	3
7	Umesh Trivedi	Industrial project, Syntron industries	288000/-	2013-1015 completed	2
9	Amit Parikh	Industrial project, Syntron industries	288000/-	2013-1015 completed	2
8	Ankita Rawani	Industrial project, Kutch Chemical	160000/-	2015-ongoing	2
9	Kinjal Shah	Industrial project, Jani clays	200000/-	2011-2012 completed	2
10	Furkan Maulvii	Industrial project, Leo Lens	120000/-	2012-2013 completed	2

**3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the university monitor the output of these scholars?**

In the recent past a few faculty members had utilized sabbatical leave for pursuing their Ph.D./M.Tech. in reputed institutions like IITs under Quality Improvement Programme(QIP) as per University norms.

**3.1.11 Provide details of national and international conferences organized by the university highlighting the names of eminent scientists/scholars who participated in these events.**

Dharmsinh Desai University under the banner of SSCSSN and Faculty of Pharmacy organized International conference ICON - NANO 2013 on Surface Science and Nanotechnology during 10-12 December, 2013.

**Name of eminent scientists participated in the ICON-NANO 2013.**

- Dr. Ashutosh Sharma, IIT Kanpur, India
- Prof. Sunil Bhagwat, ICT, Mumbai
- Prof. Ashok Ganguly, IIT, New Delhi
- Prof. Manu Multani, TFIR, Mumbai
- Dr. Weihong Tan, University of Florida, USA
- Prof. P. Somasundaran, Columbia University, NY, USA
- Dr Ratneshwar Lal, University of California, USA
- Dr. Jung Dok Kim, KAIST, Portugal
- Prof. Maria Miguel, UC, Portugal
- Prof. Toyoko Imae, NTUST, Taiwan
- Dr. Bjorn Lindman, Lund University, Sweden
- Dr. M. N. V. Ravi Kumar, University of Strathclyde, UK
- Prof R.S.R. Murthy, ISFCP, Moga, Punjab
- Dr. Rakesh Vir Jasra, RIL, India
- Dr. Bomi P Patel, TCE, Mumbai
- Prof. Prachi Thareja, IIT Gandhinagar

- Dr. Sanjeev Gupta, Zydex Ind., Gujarat
- Prof. Varsha Pokharkar, BVU, Pune

Apart from international conference, some of the national level and state level seminars/conferences arranged by various schools and departments as listed below.

#### SSCSSN Center and R & D Center

Sr. No.	Title of seminar/conference	Supported by/Sponsored by	Year
1	CPBS Software training to police officers	NCRB, Delhi	2011
2	CPBS Software training to police officers	SCRB, Gandhinagar	2011
3	Current Advances in Nanotechnology	Anchor Institute Chemicals and petrochemicals	2011
4	Nanotechnology Applications: Nanoparticles and Nanoemulsions in Pharmaceutical, pesticide, Imaging and personal care products	Agilent	2011
5	Drug delivery using Micelles, Microemulsions, Vesicles and Nanostructured phases	Anchor Institute Chemicals and petrochemicals	2012
6	Micellar Dynamics, Catalysis & Solubilization	Anchor Institute Chemicals and petrochemicals	2013
7	Surface Science and Nanotechnology in Biomedical, Pharmaceutical & Engineering systems” (ICON-NANO 2013)	GUJCOST	2013
8	Surfactants: Fundamentals and Applications	Galaxy Surfactants	2015

#### Faculty of Pharmacy

Sr. No.	Title of seminar/conference	Supported by/Sponsored by	Year
1	3 <sup>rd</sup> APP national convection	APP	2014
2	Medical health and self defense mechanisms for womens better health and wealth	GUJCOST	2015
3	Carrier counseling and importance of women education	DTE	2015
4	Popular Lecture Series	DBT, New Delhi	2015



### 3.2 Resource Mobilization for Research

#### 3.2.1 What are the financial provisions made in the university budget for supporting students' research projects?

The University provides research funds for M Tech/M.Pharm students. The details of the some of the PG research projects are given in the table for reference.

Sr. No.	Project Title	Type of project (i.e. M.Tech./ M. Pharm./Ph.D.)	Amount Given by University in INR
1	Synthesis and surface functionalization of MgO nanoparticles	M.Tech.	25000/-
2	Preparation of nano MgO from commercially viable source and its application	M.Tech.	25000/-
3	Removal of volatile monomers from polymer emulsion	M.Tech.	25000/-
4	Synthesis of magnetic nano-particles and stabilization using surfactant and their mixtures: Characterization by analytical techniques	M.Tech.	25000/-
5	Removal of volatile organic compound (VOCs) from paint	M.Tech.	25000/-
6	Physico chemical properties of Sodium dodecylglycinate (C <sub>12</sub> GlyNa) biodegradable surfactant	M.Tech.	25000/-
7	Synthesis and characterization of Hydroxy benzoic acid ester and their potential application as green corrosion inhibitor	M.Tech.	25000/-
8	Effect of metal ion doping on physical properties of Titanium Dioxide	M.Tech.	25000/-
9	Study on retardation of water evaporation by mixed molecule monolayer	M.Tech.	25000/-
10	Continuous flow microwave reactor	M.Tech.	30000/-
11	Identification and application of some natural pesticides formulation	M.Tech.	22000/-
12	Steady state and Dynamic behavior of Reactive Distillation Column with Double Reactive Sections	M.Tech.	10000/-
13	Degradation of Reactive Red 195 dye from Waste Water using Electrolysis Process	M.Tech.	20621/-
14	Preparation and surface modification of polyvinylidene fluoride(PVDF) and Polyacrylonitrile(PAN) blend ultrafiltration membrane	M.Tech.	5000/-
15	Neutralization of acids	M.Tech.	27604/-
16	Rheological flow, and surface properties of oil-surfactant polymer mixture for EOR	M.Tech.	20000/-

17	Study of Individual and Synergistic Effects of Process Parameters Affecting Adsorption of RR-195 on Activated Charcoal using RSM	M.Tech.	17000/-
18	To enhance the performance of thin composite reverse osmosis membrane by applying chitosan treatment on the top active skin polyamide barrier layer	M.Tech.	5000/-
19	Synthesis, Characterization and photocatalytic Application of nano crystalline Titanium Dioxide	Ph.D.	50,000/-
20	Removal of Carbon dioxide using NaOH solution in scrubber	M.Tech.	42000/-
21	Kinetics of dehydrogenation of cyclohexanol on Mg-Al mixed oxide supported copper catalyst	M.Tech	25000/-
22	Kinetics of dehydrogenation of Iso propyle alcohol on Mg-Al mixed oxide supported copper catalyst	M.Tech.	15000/-
23	Nano Technology for safe Drinking water	M.Tech.	-
24	Development of herbal formulation containing celosia argentea linn. And its pharmacological evaluation	M.Pharm.	25000/-
25	Fabrication and evaluation of novel drug delivery system of ofloxacin for Periodontitis	M.Pharm.	25000/-
26	Phospholipid complexation and characterization of spray dried extract of Phyla nodiflora Linn.	M.Pharm.	25000/-
27	Preparation and evaluation of naproxen sodium agglomerates by spherical crystallization technique	M.Pharm.	25000/-
28	Formulation and evaluation of Etodolac matrix tablet	M.Pharm.	25000/-
29	Effervescent tablet of Ibuprofen: development and optimization	M.Pharm.	25000/-
30	Development of drug loaded silver nanoparticles composite chitosan film on surgical dressing material for burn wound healing	M.Pharm.	25000/-
31	Design & development of carvedilol matrix tablet using cyclodextrin as solubilizing agent	M.Pharm.	25000/-
32	Formulation and characterization of self microemulsifying drug delivery system for poorly soluble drug	M.Pharm.	25000/-
33	Design & development of Novel Gastroretentive drug delivery system for glipizide.	M.Pharm.	25000/-
34	Development, characterization & evaluation of Microemulsion for poorly water soluble drug	M.Pharm.	25000/-

35	Stability Assessment of Vitamin C in Emulsified Systems & Evaluation of its Antioxidant Activity	M.Pharm.	25000/-
36	Development of Herbal Microemulsion for Topical Treatment of Psoriasis	M.Pharm.	25000/-
37	Preparation & Evaluation of Modified Proniosomal Gel for Localized Skin Disease	M.Pharm.	25000/-
38	Development & Evaluation of Ethosomal Transdermal Patch of Thiocolchicoside	M.Pharm.	25000/-
39	Studies on hydroxyapatite-Chitosan Biocomposites with Phytogetic Steroid for Bone Repair	M.Pharm.	25000/-
40	Formulation & Evaluation of Dexamethasone Sodium Phosphate Niosomal In-situ Gel for Occular Drug Delivery	M.Pharm.	25000/-
41	Dissolution Enhancement of Naproxen Sodium using Solid Dispersion Technique	M.Pharm.	15000/-
42	Nanosuspension of Naproxen Sodium for Improved Bioavailability	M.Pharm.	25000/-
43	Solid Lipid Nanoparticles for Intranasal Delivery of Antidepressent Drug	M.Pharm.	25000/-
44	Formulation, Development and Evaluation of Toothpaste for the Treatment of Dentin Hypersensitivity	M.Pharm.	25000/-
45	Transdermal Delivery of Antipsychotic Drug using Natural Polymer	M.Pharm.	25000/-
46	Formulation and Development of Low dose strength drug using quality by desgin approach	M.Pharm.	25000/-
47	Novel Nicotine Formulation for Tobacco Cessation: Development & Evaluation	M.Pharm.	25000/-
48	Method Development and Validation for estimation of Hydralazine Hydrochloride in human plasma by hyphenated technique Liquid Chromatography - Masspectrometry (LC - MS/MS)	M.Pharm.	25000/-
49	Analysis of Phytosterols from of Fruits of <i>Opuntia elatior</i> Mill	M.Pharm.	25000/-
50	Analysis of Psoralen from polyherbal formulation	M.Pharm.	25000/-
51	a) Analysis of Cephalexin in bulk and it's Pharmaceutical formulation.	M.Pharm.	25000/-
52	b) Simultaneous estimation of Azilsartan medoxomil and hydrochlorothiazide in bulk and their combined dosage form		
53	Estimation of Imipenem and Cilastatin in bulk and Pharmaceutical formulation by Spectrophotometric and Chromatographic methods	M.Pharm.	25000/-

54	Analysis of Epalrestat and Methylcobalamin in Bulk and Pharmaceutical Formulation	M.Pharm.	25000/-
55	Development and Validation of RP-HPLC method for the Simultaneous Estimation of Ketorolac Tromethamine and Olopatadine hydrochloride in Ophthalmic Solution	M.Pharm.	15000/-
56	Development and Validation of GC-MS method for the Quantification of Vildagliptin in Bulk and Tablet Dosage form	M.Pharm.	25000/-
57	Development and Validation of analytical methods for simultaneous estimation of Sildenafil citrate and Fluoxetine hydrochloride in their combined dosage form.	M.Pharm.	25000/-
58	Method Development and Validation for estimation of Losartan in Human Plasma by hyphenated techniques (LC-MS/MS)	M.Pharm.	25000/-
59	Development and validation of spectrophotometric methods for the quantification of gliptins and RP-HPLC method for Simultaneous estimation of Sitagliptin phosphate and pioglitazone in bulk and their tablet dosage form.	M.Pharm.	25000/-
60	Assessment of dissolution profiles of marketed formulations of mycophenolate in presence of fruit juices and aerated waters.	M.Pharm.	25000/-
61	Development and validation of stability indicating RP-HPLC method for simultaneous estimation of metoprolol and chlorthalidone in bulk and tablet dosage form	M.Pharm.	25000/-
62	Development and validation of LC-MS/MS method for estimation of febuxostat in human plasma	M.Pharm.	25000/-
63	Analysis of phytosterols in seeds of fruit of <i>Opuntia elatior</i> Mill.	M.Pharm.	25000/-
64	Development and validation of stability indicating RP-HPLC method for simultaneous estimation of simvastatin and sitagliptin in tablet dosage form	M.Pharm.	25000/-
65	Development and validation of LC-MS/MS method for estimation of lomafentrine in human plasma	M.Pharm.	25000/-
66	Analysis of escitalopram in human plasma by LC-MS/MS method	M.Pharm.	25000/-
67	(A) Phytochemical investigation on the fresh fruits of <i>Terminalia arjuna</i>  (B) Development and validation of analytical method for estimation of Mycophenolate mofetil in bulk and its pharmaceutical formulation	M.Pharm.	25000/-

68	Analytical method development and validation for simultaneous estimation of tolperisone hydrochloride and diclofenac sodium in bulk and pharmaceutical formulation	M.Pharm.	25000/-
69	Determination and validation of methods for estimation of Tacrolimus in bulk and capule dosage form	M.Pharm.	25000/-
70	Development of combination product of prasugrel and aspirin for coronary heart syndromes	M.Pharm.	25000/-
71	Isolation, Lyophilization and Analysis of betacyanin powder from Beta vulgaris	M.Pharm.	25000/-
72	Development and Validation of Stability Indicating RP-HPLC method for simultaneous estimation of Telmisartan and Metoprolol in combined tablet dosage form	M.Pharm.	25000/-
73	Design, Development & In-vitro evaluation of oral rapid mouth dissolving tablet containing Co-crystals of Sildenafil citrate with Aspirin	M.Pharm.	25000/-
74	“Analysis of Cidofovir Dihydrate in Bulk and Pharmaceutical Formulation.”	M.Pharm.	25000/-
75	Development and Validation of Stability Indicating RP-HPLC method for estimation of Azilsartan midoximil in bulk and Pharmaceutical dosage form	M.Pharm.	25000/-
76	Developmeent and Validation of Stability indicating HPLC method for Simultaneous estimation of Voglibose, Glimepiride and Metformin in Combined Dosage Form	M.Pharm.	25000/-
77	Simultaneous estimation of dexamethason sodium phosphate and ofloxacin in pharmaceutical dosage form by spectrophotometric and chromatographic methods	M.Pharm.	25000/-
78	Developement and evaluation of anti-aging formulation using herbal oil	M.Pharm	100000/-
79	A study on particle engineering on poorly compressible pharmaceutical material by dry particle coating using lab scale mist generator	M.Pharm	83000/-
80	Development of novel women’s friendly antifungal microemulsion loaded gel of tree tea oil-curcumin-alkylpolyglucoside	M.Pharm	83000/-
81	Formulation and evaluation of Dexamethasone Sodium Phosphate Niosomal in-situ gel for ocular drug delivery system	M.Pharm	15000/-

**3.2.2 Has the university taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?**

**Yes.**

The University had taken special efforts to encourage its faculty for file patents. The University encourages the faculty members and students for filing patents by providing full financial assistance.

Several expert talks and training programme were organized to create awareness about the patents filing among the faculty members and students.

**3.2.3 Provide the following details of ongoing research projects of faculty:**

Total Number of ongoing/completed Major and Minor Research Projects: 53

Total Amounts (Rs. in lacs) : 595.0

Details of status of research projects (i.e. ongoing/completed) are provided in **Annexure 3A and Annexure 3B** with necessary details to avoid duplication of data.

**3.2.4 Does the university have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.**

**Yes.**

**A. University awarded projects**

University provided seed money for M.Tech./M.Pharm research work based upon requirement of individual departments to complete their final year project work. The details for the same is give in 3.2.1.

**B. Other agencies - national and international (specify)**

Major projects - Agencies specify in **Annexure 3A**

Minor projects - Agencies specify in **Annexure 3B**

There are various minor/major projects undertaken by faculty members. The projects are funded by reputed government funding agencies like UGC, DST, IEDC, DBT, GUJCOST etc. Industrial research projects are also carried out by faculty members. The details of some important major projects are given in **Annexure 3A** and minor projects are given in **Annexure 3B**.

**3.2.5 How many departments of the university have been recognized for their research activities by national / international agencies (UGCSAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.**

In the period of 2010-15, more than 50 major/minor projects are either on going or successfully completed by various departments of the University. The research projects are funded by various reputed agencies like UGC, DST-FIST, Center of Excellence - GUJCOST, DBT, DST-IEDC etc. As an outcome of these research projects, the infrastructure facilities created for research and resulted in to quality publications from the receiving departments. The details of the completed/ongoing projects are given in

Annexure 3A and Annexure 3B for the period of 2010-15.

### 3.2.6 List details of

(a) **Research projects completed and grants received during the last four years (funded by National/International agencies).**

(b) **Inter-institutional collaborative projects and grants received**

\* **All India collaboration**

\* **International**

No. of Completed major/minor research projects : 25

Total Amounts Received (Rs. in lacs) :124.80

Details of Collaborative projects is given in **Annexure 3A and Annexure 3B**

### 3.3 Research Facilities

#### 3.3.1 What efforts have been made by the university to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

The University has made several efforts to improve its infrastructure facilities in last five years. University establish various Centers of Excellence like R & D Center, SSCSSN Center, Bosch Rexorth Center. University also encourages faculty members to apply for projects to various government funding agencies. All departments of University have good PG research laboratory with advanced research/analytical facilities during last five years.

Some of the key initiatives taken by University to meet the needs of researchers in emerging disciplines including up gradation of existing laboratory, setting up new laboratory, improvement of library resources, encourage interdisciplinary research and setting up common instrumental analysis facility at one center.

#### 3.3.2 Does the university have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

University Central Library provides facility to access digital-resources and for conversion, storage and printing of digital documents along with laser printers and copier for research scholars, students and faculty members. The research scholars can access and download e-papers from e-journals available in Library.

#### 3.3.3 Does the university have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?

**Yes.**

The University established Shah-Schulman Center for Surface Science and Nanotechnology (SSCSSNT) and encompasses all activities of USIC. University supported SSCSSNT having all kind of state of the art instruments to facilitate research in the field of basic science, chemical engineering and pharmacy. These facilities have been made available to research scholars for analytical and characterization purpose. University spend more than Rs. 1.5 crore to support all activity of the center during the period of 2010-2015.

**3.3.4 Does the university provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?**

**Yes.**

The University has a separate residential hostel for boys and girls students with all necessary infrastructural facilities.

**3.3.5 Does the university have a specialized research centre/workstation on-campus and off-campus to address the special challenges of research programmes?**

**Yes.**

The University has PG research labs in each department and are equipped with necessary instrumental facility/workstations and other special needs of research with the support of various funding agencies like UGC, DST, TEQIP grants etc. Apart from these, University established following two separate centers to address special challenges of research programmes.

- Research & Development Center and
- Shah-Schulman Center for Surface Science and Nanotechnology

**3.3.6 Does the university have centres of national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

University established Shah-Schulman Center for Surface Science and Nanotechnology (SSCSSN) center supported by Government of Gujarat and Industries with the help of Dr. Dinesh O. Shah, University of Florida, USA. The University received funds of Rs. 3.5 crores from Department of Industries and mines, Govt. of Gujarat and 15 lacs each from 10 different industries. University provides all necessary infrastructure and operating expenses to develop this state of the art laboratory cum research center in the field of surface science and nanotechnology. More than 25 small scale/medium scale industries of research scholars are benefitted due to SSCSSN center.

**SSCSSN Center**

**Mission**

- To promote growth and enhancement of value-added high quality research on Surface Science and Nanotechnology.
- To promote and facilitate the growth of scientists and engineers by innovative research, applications as well as teaching and training programs.
- To contribute for the industrial development and technological development of nation and state

**Vision**

- To be a Premier Research and Development Center in the country in the area of Surface Science and Nanotechnology and to Provide Leadership and Guidance in this area to industry and academia by high-quality teaching and research programs.



- To enhance Center's visibility by publications in national and international reputable journals and generate intellectual property for the Center in emerging technologies, and prepare the students of today and tomorrow for technological challenges of 21st Century.

#### **INDUSTRIAL FOUNDING MEMBERS**

- Alps Chemicals Pvt. Ltd.
- Asian Paints Limited.
- Colourtex Industries Ltd.
- Deepak Nitrite Ltd.
- Galaxy Surfactants Ltd.
- Jasubhai Foundation.
- Sun Pharmaceutical Industries Ltd.
- United Phosphorous Ltd.
- Universal Medicap Ltd.
- Zydex Industries Ltd.

#### **INDUSTRY ADVISORY BOARD MEMBERS**

- Ami Organics Pvt. Ltd.
- Bhagwati Enviro Care Pvt. Ltd.
- Dynamic Industries Ltd.
- Hi-Shine Inks Pvt.Ltd.
- Jani Clays Pvt. Ltd.
- Maps Laboratories Pvt. Ltd.
- Ornet Intermediates Pvt. Ltd.
- PI Industries Ltd.
- Prashant Industries
- Reliance Industries Limited
- Spectrum Dyes & Chemicals Pvt. Ltd.
- Syntron Industries.
- Troikaa Pharmaceuticals Limited
- Transpek Industries Limited
- Shipra Agri-Tech Pvt. Ltd.

#### **Instrumental Facility**

- X-Ray Diffractometer
- Atomic Force Microscope
- Rheometer and Viscometer
- Differential Scanning Calorimetry
- Differential Thermal Analysis- Thermo Gravimetry Analysis
- Dynamic Light Scattering (DLS)(Particle size/Zeta Potential measurement)-
- Optical Tensiometer/Dynamic Contact Angle
- Gas Chromatography-Mass Spectrometer
- Ion Chromatography
- Langmuir Blodgett Film balance & Surface Potential Measurement
- Lyophilizer/Freeze Dryer

- Maximum Bubble Pressure Tensiometer/ Dynamic Surface Tension
- Forse Tensiometer/Goniometer
- Stopped Flow & T- Jump Flow Apparatus
- Table-top Centrifuge
- Ultraviolet- Visible- Near IR Spectrophotometer

#### **Core Faculty**

- Dr. Dinesh O. Shah - Founding Director
- Dr. Tulsi Mukherjee - Director
- Dr. Atindra Shukla - Associate Professor
- Dr. Bhavesh Bharatiya - Assistant Professor
- Dr. Manish Dixit- Assistant Professor

#### **Associate Faculty**

- Dr. P.A.Joshi - Professor, Department of Chemical Engineering
- Dr. Manish Mishra - Assistant Professor, Department of Chemical Engineering
- Dr. Vimal Gandhi - Associate Professor, Department of Chemical Engineering
- Dr. Manish Thakkar - Assistant Professor, Department of Instrumentation & Control

The Shah-Schulman Center for Surface Science and Nanotechnology (SSCSSN) was established in 2008 under the leadership of distinguished Prof. Dinesh O. Shah in the Faculty of Technology, Dharmsinh Desai University (DDU), Nadiad, Gujarat, India with initial funding from Industries & Mines Department, Government of Gujarat.

SSCSSN aims to be a premier R & D center in India in the areas of Surface Science and Nanotechnology and to provide leadership and guidance to industry and academia by offering high quality teaching and research programs and enhance center's visibility by high impact publications in reputed journals and generate intellectual property for the center in emerging technologies, and prepare the students to meet technological challenges of the 21st Century.

SSCSSN will provide a platform for multi-disciplinary projects by combining the talents of multidisciplinary team comprising various faculties within DDU, as well as collaborating with other research organizations, Institutes, faculties, Universities and Industries both nationally and globally to enhance the quality of life, public health and environment. The focus is on identifying and solving problems of various industries and developing new technical solutions, processes and technologies through innovative and strategic research. The Government of Gujarat has recognized the center as a Center of Excellence for Research and Development Activities. We acknowledge that the center's contribution was honoured by National Leadership Award by Dainik Bhaskar Group.

The SSCSSN is an R&D center that accommodates about 21 sophisticated instruments to carry out research and analysis in Surface Science and Nanotechnology. There are 5 core faculties and 6 associated faculties, 5 research scholars and 4 project fellows involved in the functioning of R&D activities of the Center. SSCSSN provide instrumental analysis and other resources to Universities, Institutes, government agencies, and Industries for modest fees. We offer special discounts to University students and our Industrial partners for sample analysis.

SSCSSN is established on a truly joint partnership of academia, industry and Government of Gujarat. At present more than 25 companies are supporting the research projects at the center. In short span of its establishment, Center has earned 15 Government sponsored research projects and 12 Industry funded projects. In past 8 years we have published more than 50 research publications in international peer reviewed journals.

## **RESEARCH & DEVELOPMENT CENTRE**

R&D centre of DDU started from 1998 and its main objective is to carry out research activity in the area of Information Technology, Computer Science, Computer Application and Electronics & Communication with the respective faculty members. R & D Center is also giving training to final semester students of the respective discipline to carry out the project in the area of cutting edge technology. It has taken up national level projects from pioneer institutes like National Crime Record Bureau, Institute of Plasma Research, Physical Research Laboratory, Oil and Natural Gas Corporation Limited, HiRel Reliance Limited, Gujarat Samachar, Muljibhai Patel Urology Hospital, Forensic Laboratory and many others. It has the distinction of developing a Portrait Building System which is successfully used at every District Police Head Quarters in the Country to arrest criminals.

### **3.4 Research Publications and Awards**

#### **3.4.1 Does the university publish any research journal(s)?**

**If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.**

**Yes**

University publish two research journalson regular basis, namely, (i) Journal of Research in Technology and Management (ii) Journal of Dental Sciences

#### **1. Journal of Research in Technology and Management**

Journal of Research in Technology and Management has been published since 2012 by Dharmsinh Desai University (DDU). Journal of Research in Technology and Management is a biannual publication that reports industrial and academic research in the broad fields of engineering and management with special focus on management, fundamentals, processes and products. Papers may be based on work that is experimental or theoretical, mathematical or descriptive, chemical or physical. In addition to fundamental research, papers may deal with process design and development and product research and development involving management and engineering aspects. In addition to traditional subjects, papers dealing with new areas of science and technology that fit the broad scope and objectives of the journal are encouraged.

#### **Patron**

Dr. H. M. Desai

#### **Vice – Patron**

Prof. D. G. Panchal

#### **Editor-in-chief**

Dr. M. S. Rao

## Advisory Board

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Instrumentation and Control

- Dr. Vipul Shah

Master of Business Administration

- Dr. Naresh Patel

## 2. Journal of Dental Sciences

### Editor

Dr.Somil Mathur

### Advisor

Dr.Bimal Jathal

### Editorial Committee members:

Dr. Hiren Patel

Dr. Shalini Gupta

Dr. Hitesh Diwan

Dr. Snehal Upadyay

Dr. Chintan Thakkar

Dr. Naitik Modi

### 3.4.2 Give details of publications by the faculty:

**\* Number of papers published in peer reviewed journals (national / international)**

**\* Monographs: \* Chapters in Books: \* Books edited\* Books with ISBN with details of publishers : \* Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, EBSCO host, etc.) \* Citation Index – range / average \* SNIP \* SJR \* Impact Factor – range / average : \* h-index**

### Publications

Number of Papers published in peer reviewed International journals : 269

Number of papers published in peer reviewed National journals: 69

Number of papers published in peer reviewed University Journals: 08

Impact factor - Range: 0.3 - 5.8

Refer **Annexure 3C** for more details of published papers in National/International Journals.

**Books and Book Chapter**

No. of Books published: 11

No. of Book Chapter: 09

Refer **Annexure 3D** for more details related to books and book chapters.

Apart from these, University faculty members also presented research papers in various national/international conferences. The details for the same is given in **Annexure 3E**.

**3.4.3 Give details of**

**\* faculty serving on the editorial boards of national and international journals**

**\* faculty serving as members of steering committees of international conferences recognized by reputed organizations / societies**

Several faculty members (listed below) of University serving either on the editorial boards or as reviewer for various journals published by Springer, Elsevier, Willey, Taylor & Francis etc.

**Dr. M.S.Rao**

Editor and Member of the Editorial Board of DDU's International Research Journal

**Dr. Naresh Patel**

Member of the Editorial Board of DDU's International Research Journal

**Dr. Mehul Patel**

International Journal of pharmaceutical research scholars, Journal of pharmaceutical and medicinal chemistry, Journal of analgesic

**Dr. Vipul Patel**

International Journal of pharmaceutical research scholars, Journal of pharmaceutical and medicinal chemistry, Journal of analgesic

**Dr. V.A.Shah**

International Journal of Darshan Institute on Engineering Research and Emerging Technologies (IJDI-ERET) (ISSN 2320-7590)

**Prof. J.G.Bhatt**

International Journal of Automation and Control (IJAC), International Journal of Electronics, Communication and Instrumentation Engineering Research, Multi-Disciplinary Edu Global Quest (MDEGQ), National Conference on Recent Trends in Technology and Management (NCRITM-2016)

**Dr. M.T.Thakkar**

National Conference on Recent Trends in Technology and Management (NCRITM-2016)

**List of the faculty members serving as reviewer in National/International Journals**

<b>Sr. No.</b>	<b>Name of Faculty members served as reviewer</b>	<b>Name of Journal</b>
1.	Dr. Manish Mishra	RSC Green Chemistry, Journal of Molecular Catalysis, Catalysis Communications, Catalysis Letters, ACS Industrial Engineering Chemistry Research, Bulletin of Korean Chemical Society, Journal of Industrial Engineering Chemistry, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Chemical Engineering Journal, Monatshefte fur Chemie, Spectroscopy Letters
2.	Dr. J.L.Purohit	Industrial & Engineering Chemistry Research
3.	Dr. D.P.Ahalpara	National Journal of System and Information Technology, African Journal of Business Management
4.	Dr. H. B. Prajapati	Transactions on Parallel and Distributed Systems, Journal of Grid Computing, published by Springer, Journal of Intelligent Systems, published by De Gruyter
5	Dr. V. K. Dabhi	International Journal of Parallel, Emergent and Distributed Systems (Taylor and Francis), Transactions on Parallel and Distributed Systems, Transactions on Parallel and Distributed Computing, Neural Computing and Applications journal(Springer), International Journal of Modelling, Identification and Control
6	Dr. Nikhil Kothari	Telecommunication Systems, Springer
	Dr. Hardip Shah	IET Communication (IET)International Journal of Communication System (WILEY)
7	Dr. Purvang Dalal	International journal of Computer Network & Communication (IJCNC), Optoelectronics (ICEOE2012)
8	Dr. Naresh Patel	International Research Journal of Management and Business Studies, International Research Journal of Library, Information and Archival Studies, Journal of Research in Economics and International Finance, International Research Journal of Police Science, Criminal Law and Criminology (IRJPSCLC). Universal Journal of Marketing and Business Research(UJMBR)
9	Dr. V.A.Shah	IET Control Theory & Applications
10	Prof. J.G.Bhatt	IEEE Transactions on Industrial Electronics (IEEE-TIE), Renewable and Sustainable Energy Reviews (RSER), Energy and Buildings (ENB), Sensors and Actuators A: Physical (SNA), Indian Journal of Engineering and Materials Sciences (IJEMS), International Journal of Instrumentation Technology (IJIT), International Journal of Smart Grid and Green Communication (IJSGGC)
11	Prof. T.J.Patel	International Journal of Dynamics and Control, Springer

### **3.4.4 Provide details of**

**\* research awards received by the faculty and students**

**\* national and international recognition received by the faculty from reputed professional bodies and agencies**

- Mrudang Mehta- Best paper award for a research paper in IEEE ICCIC 2014
- Jigar M. Pandya- Winner - Faculty Excellence Award 2015 (Infosys Campus Connect Team)
- Hariom A. Pandya- Winner - Faculty Excellence Award 2015 (Infosys Campus Connect Team)
- DDU – Best Accredited Student Branch Award 2013-14
- Dr.J.L.Purohit - Received best paper award (oral presentation) for the paper titled “Observer Based Non-linear predictive control of index -1 DAE Reactive distillation system” during RSS-2012, held on 17<sup>th</sup> March, 2012 at IIT, Bombay.
- Dr.P.A.Joshi - “Excellence in Education” By Gujarat Chemical Association, 2014.
- Dr.P.A.Joshi- “Life time achievement award” By DDU Alumni Association, 2014.
- Prof. D.J.Vyas - “THE BEST TEACHER AWARD” from Indian Society for Technical Education – New Delhi in Dec. 2010.
- Dr. M.K. Mishra- Achiever’s Award (in research) for the year 2013-14 by D.D. University Alumni Association.
- Dr. M.K. Mishra- Dr. D.O. Shah Research Excellence Award 2013 by Shah-Schulman Centre for Surface Science and Nanotechnology, D. D. University, Nadiad, Gujarat
- Prof Chirag Dalal - working as a IEDC & TEDP Co-ordinator which is promoting techno-entrepreneurship in University. These efforts have fetched nearly Rs. 55 Lacs grant for DST in two programs since last 5 years. This recognition is of Dept & University as only IEDC of Gujarat.
- Prof. M. T. Thakker has been awarded DDU Achievers award by DDU Alumni section
- Dr. B. N. Suhagia has been awarded as “Outstanding Achievement Award” by Association of Pharmacy Professionals (APP) in 2013.
- Dr. Tejas B Patel Awarded Best Oral Presentation at Annual convention of Association of Pharmacy Profesional (APP) in 2013.

### **3.4.5 Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty during the last four years. Does the university participate in *Shodhganga* by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?**

An average of approximately one student is being guided by each faculty member for completion of their PG/Ph.D. research work.

### **3.4.6 What is the official policy of the university to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.**

The University has a strict policy to check malpractices and plagiarism in research. Before submission of Master and Doctorate thesis has to pass plagiarism test. One case has been reported in Ph D and the student as well as guide has been disqualified

**3.4.7 Does the university promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavors?**

**Yes**

There are several joint research projects/consultancy works under taken by various departments and schools. Many research projects are being guided/carried out jointly by faculty from two different departments. Out of total 51 major/minor ongoing/completed projects carried out in last five years, more than 15 projects are jointly handled by either faculty members of two different departments or two different faculties. The details of the same are given in **Annexure 3A and Annexure 3B**.

Faculty members of various departments give significant contribution in establishing and day to day functioning of various centers to promote interdisciplinary research in University. For example,

- Department of Electronics and Communication and Department of Computer Engineering are actively involved with R & D Center.
- Department of Chemical Engineering and Faculty of Pharmacy are associated with SSCSSN center.
- Department of Mechanical Engineering along with the support of Department of Electronics and Communication, Department of Computer Engineering and Department of Instrumentation Engineering are running Bosch-Rexerth Center of Excellence in Automation Technologies.

Apart from these, Department of Civil Engineering in association with Department of Chemical Engineering jointly carry out Environmental Audit for Industries.

**3.4.8 Has the university instituted any research awards? If yes, list the awards.**

**Yes.**

The University Alumni Association offers Best Teacher Award every year after considering all aspects of faculty members including research.

**3.4.9 What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?**

The University research committee promotes research in the University and give recognition and awards to the faculty for outstanding publication.

**3.5 Consultancy**

**3.5.1 What is the official policy of the university for structured consultancy? List a few important consultancies under taken by the university during the last four years.**

The university considered/identified mainly three areas under the umbrella of consultancy services, (A) Consultancy (B) Testing (C) Training offered to industries/institutions



**List of important training cum consultancy assignment completed by different centers/cell/departments**

- i. Environmental Audit Cell successfully completed consultancy assignments for different chemical industries/organizations as given in following table.

<b>Year</b>	<b>Name of company</b>	<b>Title of project and scope of work</b>	<b>Amount generated (in INR)</b>
2015	The Schedule – I chemical process industries like	Carrying out “Environmental Audit” for the Chemical Process industries in the State of Gujarat.	65,00,000/-
2014	Relience, GNFC,GSFC,Zydu	To issue “Adequacy-Efficacy Certificate” for EMS during production expansion	50,00,000
2013	s Cadila, Sun Pharma, Tata Chemicals, GEB	To issue “Product mix Certificate” for change in existing production without expansion.	40,00,000
2012	etc. in the state of Gujarat as per the directives of Gujarat Pollution Control Board, Gandhingar and Honorable High Court of Gujarat	To issue “Product classification Certificates”	35,00,000
2011		To issue the “Adequacy certificate for APCM”	35,00,000
2010		Carrying out “Environmental Audit” for the Chemical Process industries in the State of Gujarat.	30,00,000

- ii. The structural design cell under Civil Engineering department completed project on –“Design of Storm Water Drainage for Dahej-2 and Dahej-3” amount worth of Rs. 50,00,000/- provided by GIDC, Bharuch in the year 2014-15.
- iii. Shah Schulman Center for Surface Science and Nanotechnology carried out testing of various materials/chemicals and generated amount of Rs.10,00,000 in last five years. Apart from testing, following industrial consultancy is also done by center.

**Details of Industrial consultancy done by SSCSSN Center**

<b>Sr. No.</b>	<b>Year</b>	<b>Name of company</b>	<b>Title of project</b>	<b>Amount generated (in Lac)</b>
1	2010	Jani Clays Pvt. Ltd.	Development of Nanoclays for Nano-composite & Paint Formulations	8.00
2	2010	Universal Medicap	Development of Stable Teflon Dispersions	1.00
3	2012	Leo Lens Technologies Inc.	Inkjet as a drug delivery system	4.00
4	2012	Hi-Shine Inks Pvt. Ltd	Investigation on Rheological and Surface properties of Writing Inks.	7.56

5	2013	Asian Paints	Anti-bacterial property of nano-Magnesium oxide in water based paints & Removal of monomers from polymer emulsions by adsorption	13.54
6	2013	Narayan Organics Pvt. Ltd.	Alternative Route for the Synthesis of CPC	1.20
7	2013	Syntron Industries Ltd.	Evaluation of Surfactant Properties	3.00
8	2013	Syntron Industries Ltd.	Synthesis of Novel Green Surfactants	3.00
9	2014	Transpek Industries Ltd.	Catalytic route for synthesis of decanenitrile	4.34
10	2015	IRS-ONGC	Enhanced Oil Recovery using nanomaterials	31.30
11	2015	Kutchh Chemicals	Conversion of 1,2,3-trichlorobenzene into valuable chemicals	2.16

- iv. Anchor Institute in association with Department of Chemical Engineering department conducted industrial training program/workshop worth Rs. 40,00,000 for chemical industries/institutions.
- v. Faculty of Management generated Rs 12.55 lacs consultancy
- vi. Faculty of Pharmacy generated amount worth of Rs. 6 lacs under the banner of - “*In-vitro* cytotoxicity testing of samples “ for different colleges/institutions within India.
- vii. Faculty of Dental Science generated Rs. 2,61,73,000/- as consultancy charges by providing subsidized dental treatment service to the society in last five years.

### **3.5.2 Does the university have a university-industry cell? If yes, what is its scope and range of activities?**

**Yes.**

The University is having various centers/cell to interact with industries at different levels, namely

- (i) Training and Placement Cell
- (ii) Environmental Audit Cell
- (iii) Anchor Institute –Chemicals and Petrochemicals Sector
- (iv) Bosch Rexorth Center of Excellence in Automation Technologies
- (v) Structural Design Center
- (vi) R & D Center

#### **Training and Placement Cell**

The University has full fledged Training and Placement Cell (T & P Cell) to interact with industries and inviting them for the recruitment of students. T & P Cell consists of one senior faculty member as Training and Placement Officer and supported by one faculty

members from each department. As an outcome of the sincere efforts of T & P Cell, some of the leading companies like Infosys, TCS, Tech Mahindra, GNFC, GSFC, Linde, GACL, Reliance, Essar are the regular visitors at our campus for recruiting students.

Placement Cell also provides counselling to the students related to career guidance, how to prepare for campus interviews, and developing analytical problem solving skills with the help of internal faculty members and external agencies.

In the academic year 2014-15, more than 50 companies visited the campus and recruited more than 300 B.Tech./B.Pharm. students, Master's students (including M.Tech., MBA and MCA) students and diploma students. In current Academic year 2015-16, more than 40 companies have visited the campus and offered job to 365 students up to April-2016.

### **Environmental Audit Cell**

University established Environmental Audit Cell with state of the art laboratory to provide consultancy in the field of environment engineering. The scope of the environmental audit cell covers mainly (a) Industrial visit, collection of samples, analysis and monitoring of environmental management system and (b) preparation of audit report as per the norms of Gujarat Pollution Control Board (GPCB).

The Environmental Audit Cell also offers services to leading chemical industries in the area of Environmental Impact Assessment, Total Pollution Load Assessment, Designing and monitoring of Common Effluent Treatment Plants etc.

The cell has carried out environmental audit for some of the leading industries like Reliance, GNFC, Bayers, GEB, Sun Pharma, Zydus Cadila, Cadila Pharma, GAIL, Tata Chemicals etc.

### **Research and Development Center (R & D Center)**

University established R&D Center to undertake real world IT based projects from Industries/Government organizations and provides technical solutions to their problems. The R & D Center also helping final year students UG/PG students of university for their project work. Apart from contributing in Govt. of India's Mars Mission project, some of the major tasks completed by Center is listed below.

Human Face Identification System: This system was developed by R & D center and was utilized by the NCRB to detect the culprits in Rajiv Gandhi Assassination case.

Opinion Poll System: The Opinion Poll System for voting in conferences and meetings was developed for the Muljibhai Patel Kidney Hospital, Nadiad.

Other systems, which are being developed, are Examination Information System through Telephone Line, Scull Face Superimposition Project, Web Based Person Identification System Using Multiple Features Including Finger Prints.

In its continued endeavour to reach out to the professionals, the center holds regular workshops on micro controller based system design, digital signal processing and courses on C/C++ programming.

## **Anchor Institute**

Department of Chemical Engineering is recognised as ANCHOR INSTITUTE in the field of Chemicals and Petrochemicals sector by Department of Industries and Mines, Govt. of Gujarat in order to provide industrial responsive training and skill development programmes with financial support of 10 crores. The Anchor Institute has organized more than 60 training programs for industries/institutes and trained more than 900 industry personals, 600 faculty members and 1600 students till date. More details about Anchor Institute and its programmes/functions is available on: [www.dduanchor.org](http://www.dduanchor.org)

## **Bosch Rexorth Center of Excellence in Automation Technologies**

Department of Mechanical Engineering established Bosch Center of Excellence in Automation Technologies with financial and technological collaboration of Bosch Rexroth. The objective of the center is to reduce technology gaps between industry and academics with hands on experience and new pedagogical methods. The center is also focused on training, knowledge transfer, projects, research and its industrial applications. The center is having various state of the art advanced laboratories like Mechatronics Lab, PLC lab, MTX lab, Pneumatics Lab, Robotics lab, Hydraulics lab and Sensorics lab.

## **Structural Design Center**

Structural Design Center of university carries out structural analysis and design needs of the industries and government organizations. The center undertakes consultancy works related to static and dynamic analysis, structural design and failure analysis of various Civil and Industrial/Infrastructure projects. The facilities available at the center include STAAD III-Ver 18 on LAN, STADD Pro, Auto- CIVIL, NISA, Auto CAD, and in house programs developed by faculty. The center is also supported with adequate material testing facilities of the Department of Civil Engineering.

### **3.5.3 What is the mode of publicizing the expertise of the university for consultancy services? Which are the departments from whom consultancy has been sought?**

University provides consultancy services to various industries/organizations through different faculties/departments. Following faculties/departments are the mainly contributing to provide consultancy and training to various industries/organizations.

- Faculty of Technology (through its different Departments like Computer Engineering, Chemical Engineering, Civil Engineering, Electronics and Communications, Mechanical Engineering, Information Technology, Instrumentation & Control)
- Faculty of Management
- Faculty of Pharmacy
- Faculty of Dental Science

The list of consultancy carried out for various government organizations/Industries are :

- RIL, Haziara
- Tata Chemicals, Mithapur

- Gujarat alkalies and Chemicals Limited, Ranoli
- Deepak nitrate Ltd., Nandesari
- Gujart State Fertilizers and Chemicals Ltd., Baroda
- Ambernath Orgnics Pvt. Ltd.
- Sun Pharma
- PI Industries
- Asian Paints Ltd, Mumbai
- Jani Clays Pvt. Ltd, Ahmedabad
- Transpek Industries
- Zydus Cadila
- Cadila Healthcare
- Gujarat Industrial Development Corporation
- Sijcon Consultants Pvt Limited
- YA Software LLP Vadodara
- Hitachi-HiRel

**3.5.4 How does the university utilize the expertise of its faculty with regard to consultancy services?**

University utilizes the expertise/skills of its faculty members mainly in the following areas for training and consultancy

- (a) By taking industrial problems/research projects
- (b) By taking design related problems
- (c) Providing third party inspection to various industries/agencies
- (d) Provide Technical training programme/workshop for industries/institutes as per their need
- (e) Testing/Analysis of materials and chemicals
- (f) Management development programme
- (g) Government and Local Governing bodies

**3.5.5 List the broad areas of consultancy services provided by the university and the revenue generated during the last four years.**

University offered training and consultancy in the area of Computer Engineering, Civil Engineering, Chemical Engineeirng, Environmental Engineering and Industrial Management.

The details of the same is given in 3.5.1.

**3.6 Extension Activities and Institutional Social Responsibility (ISR)**

**3.6.1 How does the university sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.**

Dharmsinh Desai University provides ample opportunities and encourages students to bring out their potential in extra and co-curricular acitivites of their interest by involving

themselves in various students chapters/society/groups/clubs etc. Currently there are various student chapters/society/groups/clubs existing and active. Few of them are mentioned here.

- DDU Connect - Group of students who publish news paper on regular basis-  
[www.dduconnect.in](http://www.dduconnect.in)
- Spandan Group - Social service group of University
- National Service Scheme (NSS)
- National Cadet Corps (NCC)
- Indian Institute of Chemical Engineers - Student Chapter (IChE)
- Institute of Electrical and Electronics Engineers - Student Chapter (IEEE)
- Indian Society for Automation – Student Chapter
- ISHRAE – Student Chapter
- SAE – Student Chapter
- Institute of Electronics and Telecom Engineers – Student Chapter
- Computer Society of India – Student Chapter
- Go Make a Difference – GOMAD
- SINE
- Nirman Social Group – Pharmacy
- Shutterbugs – Photography

### **3.6.2 How does the university promote university-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?**

- The university promotes social extension activity through social service group – Spandan consist of senior faculty member and student valunteers.
- Students of the Faculty of Dental Science regularly conducts free dental checkup camps for semi urban and rural areas nearby Nadiad.
- Under NSS various social activities are organized like adoption of village, rural camp and visti of orphan house and oldage homes.

### **3.6.3 How does the university promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International programmes?**

As a part of regular activity, NSS unit of University arranging blood donation camp, visit of oldage home and remand home, Cloth distribution to poor, Swanchta Abhiyan etc on regular basis. Recentaly NSS unit of University completed following activity with the support of University.

13/02/2016 : Swachh DDU Abhiyaan  
14/02/2016 : Poster Competition  
26/02/2016 : Blood Donation camp  
27/02/2016: Visit of Remand Home, Nadiad  
28/02/2016 : Visit of Oldage Home, Dakor

**3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the university to ensure social justice and empower the underprivileged and the most vulnerable sections of society?**

Spandan group carried out various social activities along with the support of NSS group. Some of the activities carried out by these groups are listed here.

<b>No.</b>	<b>Date</b>	<b>Project</b>	<b>Description</b>
1.	17/07/13	Uttarakhand- Disaster Fund Raising	Lighting of candles to express solidarity and raised the fund of Rs. 59,000/-. University contributed a matching amount.
1.	08/08/13	Donation received	Students donated 1150/- to Spandan
2.	10/08/13	Visit to old age home	Distributed fruits and enjoyed games and music with them.
3.	28/08/13	Janmashmi celebration at Orphan age home	Celebrated with orphan children by distributing sweets and food. Games were the attraction of the day.
4.	16/09/13	Blood Donation Camp	273 units donated by students
5.	08/09/13	Clothes Donation	Collected and distributed clothes to Orphan age children.
6.	17/09/13	Poster Making Competition	Theme: World Peace Day
7.	07/11/13	Fruit Distribution	Fruits were distributed at various hospitals. Fruits were donated by Vice Chancellor Dr. H. M. Desai
8.	01/01/14	Blood Donation Camp	587 units were collected from various Faculties of the University.
9.	01/01/14	Cancer Awareness Skit	Written, Directed and performed by Spandan Students during celebration of Foundation Day of the University.
10.	01/01/14	Cancer Awareness Rally	Spandan joined the Cancer Awareness Rally organized by the University.
11.	19/01/14	Old age home visit	Spandan members gifted fruits and sweets and helped them with daily chores; as well as fulfilled their wish of playing garba and antakshari. They also cooked food for them.
12.	23/02/14	Visit to Remand Home	Distributed gifts, taught them and played with them.
13.	15/08/15	Visit to Orphan age and Remand Home	Fruits were distributed to the children. Fruits were sponsored by Dr. H. M. Desai
14.	25/09/14	Blood Donation Camp	Inaugurated by then Collector of Kheda District Shri. K. K. Nirala along with Vice Chancellor, Registrar and Deans of various faculties of the University.  329 units of blood were donated to Red Cross.

15.	13/12/14	Blood Donation Camp	Registrar of the University inaugurated the camp. 150 units of blood were donated .
16.	14/12/14	Yogathan	Spandan members participated in Yogathan organized by Art of Living.
17.	01/01/15	Organized “Star of DDU”	Spandan along with DDU Connect team organized “Star of DDU” Competition.
18.	01/01/15	Hathej ni Navi Movadi	Hathej ni Navi Movadi, a village was adopted by the University.
19.	01/01/15	Integration Program	Uttrayan, Christmas and Diwali were celebrated on the same day by the University. It was organized by the teams of Spandan and DDU Connect. Day began with Uttrayan along with music. Stalls were allotted to the students of various faculties. This was the opportunity for them to earn and exhibit their management skills. Whole day Santa Clause/s moved around distributing chocolates adding festive mood of New Year. In the evening it was final round of “Star of DDU”. The day ended with Diwali with lots of crackers and lanterns in the sky.
20.	Felicific ‘15	Fund Raising	In accordance to the days celebrated during the week, the theme at Spandan stall changed every day. According to the different days, various games were arranged.
21.	14/03/15	Visit to Old age home	Members gifted fruits at Old age home.
22.	08/04/15	Visit to Orphan age and Remand Home	Played games and distributed Ice-creams and Chocolates.
23.	Month of May	Survey at Hathej ni Navi Movadi	Spandan members in their vacation helped the University to conduct a survey at the adopted village.
24.	22/07/15	Blood Donation	Reopening of the new academic year was celebrated with Blood Donation. 250 units of blood were collected.
25.	14/09/15	Visit to Remand Home	Spandan visited Children Home (Remand Home) located at Jawaharnager, Manjipura Road. Distributed Biscuits and chocolates and played musical chair and other games with the kids.
26.	14/09/15	Visit to Oldage Home	Members visited ‘Ashakt Ashram’, Dakor with Fruits and chocolates. They interacted and played antakshari with them.
27.	21/09/15	Blood Donation Camp	Camp was organized at Faculty of Pharmacy and 30 units were collected by DDMM Heart Institute, Nadiad.



28.	26/09/15	Visit to Blind School, Vanthvadi	Spandan members visited Blind School at Vanthvadi, Mehmdabad with chocolates for kids. Here along with blind, deaf & dumb children resides too. Members interacted with the children and discussed their needs with the authorities; they also learned about how these children learn and interact with each other. It was whole new experience for the members.
29.	07/11/15	Shoes Donation at Blind School, Vanthvadi	16 pair of shoes was donated to blind and deaf & dumb at Aandhjan Mandal, Vanthvadi, Mehmdabad.
30.	16/12/15	Clothes donation at Blind school, Vanthvadi	Shirts, T-shirts and Pants were donated for blind and deaf & dumb boys. T-shirts were donated to mentally challenged girls

Apart from these, Students and faculty members of Dental Science organized more than 380 free dental check up camp in Nadiad city, surrounding villages and schools as a part of service to the society. As a result of this, more than 60,000 patients are benefitted.

### **3.6.5 Does the university have a mechanism to track the students 'involvement in various social movements / activities which promote citizenship roles?**

The most important point here is the long tradition the University has in the social service field and social movements. We are fortunate in having great freedom fighters, social workers and reformers as our founders. In fact the university itself is named after the late Shri Dharmsinh Desai, the son and grandson of freedom fighters and social reformers and himself a social worker, reformer and industry pioneer. Thus the University has social work and reform in its genes.

However, the success of the University lies in its ability to transmit this propensity in social work to its students. To this end, it has taken the following steps:

- Provided a number of social activities and social movements which the students can join, without jeopardizing their demanding studies – the main purpose which the students are here for.
- Provide leadership and guidance to individual students or their groups so that they choose what is best for them at different stages
- Thereafter, monitor their involvement with the mechanism of a Coordinator of Social Outreach at the University level. This work helps keep track of where the efforts of the students is being directed at, and whether it is bringing any fruits commensurate with the extra effort being put in by the students.
- The University has its own Social Responsibility programme, out of which it has identified the following activities as being suitable for student participation:
  - Village adoption
  - Dental care camp
  - Medical camp and opening up of medical facilities
  - NCC and NSS activities, and the associated social service activities

- Blood donation camps on a regular basis
- Computer Coaching for the economically disadvantaged, in association with SEWA
- University Foundation Day – which is celebrated to renew the commitment of the University community to the society at large, such as:
  - Organ Donation Event – a Guinness World Record
  - Cancer awareness Rally
- Providing professional courses to the needy
- Orphan house visit by the students – taking advantage of the fact that Nadiad is home to a world-famous orphanage over 100 years old, which was blessed by Mahatma Gandhiji as well
- Old age home visit by students

The university has a small limitation in this area. Being a University providing education in streams which place very heavy time demands on the students, the time available for its students to seriously engage in these activities is quite less. As a result, they are not in a position to do as much as students in less demanding streams.

**3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students’ academic learning experience? Specify the values inculcated and skills learnt.**

The University does one more UNIQUE thing: it provides education in Yoga as a compulsory course for students. This goes a long way towards providing mental peace to the students, most of whom are away from home for the first time, which helps them retain their sensitivity towards the various social causes, without which the activities would not bring the desired results.

As a result, the students keep their minds AND hearts open whenever they take part in any activity, and manage to come up with ways of being a part of a solution to the various social problems themselves, even when they cannot come up with a solution themselves.

The foremost value they imbibe is that of sensitivity to others’ problems and trials. And the foremost skill they learn is to see the needs of other people when the affected people themselves cannot identify.

Having been able to see the needs, they are in a position to frame a problem which can be solved – technically, managerially, socially or just by plain human contact, as in the case of Orphanages or Old Age Homes.

**3.6.7 How does the university ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the university which have encouraged community participation in its activities.**

The University does this by involving the community in selecting its intervention, thus building high confidence in the community about the success of whatever effort they have to make. This is the one critical factor in ensuring deep involvement by the stakeholders as they can see that their efforts will definitely bear fruit. This has been most visible in the

various activities ensuing from Village Adoption, Computer Training Classes, various NCC/NSS projects and camps etc.

**3.6.8 Give details of awards received by the institution for extension activities and/contributions to social/community development during the last four years.**

- The University is a World Record Holder in this area.
- On 1<sup>st</sup> January, 2013, Dharmsinh Desai University established a Guinness World Record for pledging 4692 pairs of eyes in 8 hours' time.
- Appreciation award by DDMM Nadiad for organizing blood donation camp and significant number of blood unit collection.

**3.7 Collaboration**

**3.7.1 How has the university's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the university benefitted academically and financially because of collaborations?**

The University has collaboration with various reputed Universities/Industries to boost up research and academic activity in the campus. As a result of these, university benefitted academically and financially in terms of joint research projects, organizes various training programme/workshops through sponsorship, improvement in instrumental facility etc. Some of the reputed collaborative partners are mentioned below.

- University of Iowa, USA
- University of Florida, USA
- Columbia University, USA
- KHS, Germany
- Bosch-Rexroth
- Alps Chemicals Pvt. Ltd.
- Asian Paints Limited.
- Colourtex Industries Ltd.
- Deepak Nitrite Ltd.
- Galaxy Surfactants Ltd.
- Jasubhai Foundation.
- Sun Pharmaceutical Industries Ltd.
- United Phosphorous Ltd.
- Universal Medicap Ltd.
- Zydex Industries Ltd.
- PI Industries
- Thermofischer
- IIT Bombay, Indradhanush Project
- IIT Roorkee, GERMI
- CSMCRI Bhavnagar

### 3.7.2 Mention specific examples of how these linkages promote

Faculty members of the University and senior officials of above mentioned companies/organizations are interact regularly to identify the industrial problems and explore the possibility of research on need basis. Some of the industrial problems that are considered as research project at PG/doctoral level and offered to students. On the other side, concerned industry provides research fund to faculty members and/or offer stipend to the research scholar.

#### **\* Curriculum development:**

Industry representatives/ personel are actively involved in syllabus developemnt as well as part of Board of Studies and Academic Council of University. They also help to evaluate final year UG/PG and doctoral research work.

#### **\* Internship :**

Various colloborative institutes provide final year UG projects/summer training/internship to the University students which helps to improve the technical skill of the students.

#### **\* On-the-job training**

University has unique concept of vocational training for B.Tech fourth year students in their final semester. Various sectorial industries offer training to final year students for their project work. On successful completion of training, students are likely to get placement opportunity in the same industry.

#### **\* Faculty exchange and development**

Some time industries/research organizations are ready to offer training to faculty members of the University depending upon mutual concern and understanding of industrial problem.

For example, Thermofischer India signed MoU with Anchor Institute of University to organize various in house training programme on instrumental method of analysis in the benefit of faculty members as well as research scholars and industry personnels looking at the expertise available in the Chemical Engineering Department.. Center of Excellence in Automation Technologies also conducts similar training for industry personnel.

#### **\* Research:**

Some collaborative industries (like Sun Pharma, Galaxy surfactants, Colourtax) have provided financial grants to establish state of the art Center for Surface Science and Nanotechnology to enhance research in this upcoming field.

#### **\* Publication:**

Faculty Members publish papers in association with Industry/Institution personnel on joint projects/research work.

#### **\* Consultancy**

Collaborative industries share their industrial problems with faculty members and offer project work /research work. For Example, Asian Paints provided research grant of worth Rs. 13.5 lacs to handle the issue of removal of odor (VOCs) from polymer or paint formulation by adsorption.

### **\* Extension**

University offers Vocational Training Program for Chemical Plant Operators under taken by Anchor Institute supported by PI Industries Limited under their CSR activity for unemployed Science Graduates. Nearly 100 science graduates have successfully completed this course and are placed in Chemical Industries.

### **\* Student placement**

Final Year B.Tech/M.Tech students are placed in sectorial industry for 16 weeks for their Industry Training/Projectwork. Depending upon their performance and requirement of Industries/organization jobs are offered to them.

Final year B. Pharm students are placed in pharmaceutical industry for 500hrs/90 days for their industrial training. Some of M. Pharm students are placed in a R&D/F&D units of pharmaceutical industry for their project work.

### **3.7.3 Has the university signed any MoUs with institutions of national/international importance/other universities/industries/corporate houses etc.? If yes, how have they enhanced the research and development activities of the university?**

**Yes.**

The University signed several MoUs with institutions of National/International importance as well as Industrial/corporate houses. Details of some important MoUs are highlighted here.

- (i) University established Shah-Schulman Center for Surface Science and Nanotechnology (SSCSSN) has entered in to tri-partite agreement with University of Florida and Columbia University under the IUCRC program of National Science Foundation, USA. Dept. of Science & Technology-India will support this program in India. Under this program 16 companies have joined SSCSSN as Industrial Advisory Board Members for Industry oriented research activities. SSCSSN-DDU is one of the first such partners from Gujarat to enter into this NSF sponsored International program. Center also has collaborative projects with nearby Universities in these areas as well as overseas Institutions in Sweden, Taiwan and USA.
- (ii)Memorandum of Understanding between Dharmsinh Desai University and The University of IOWA, IOWA City, IOWA, USA for the following general forms of cooperation dated 11 September, 2012.
  - Joint educational, training and/or research activities.
  - Exchange of invitations to scholars (faculty, research personnel, and graduate students) for lectures, visits and sharing of experiences.
  - Exchange of invitations to scholars for participation in conferences, symposia and seminars.
  - Exchange of information in fields of interest to both parties.
  - Exchange of faculty, research personnel, graduate and undergraduate students for study and research.
  - Practical training in pre-identified or otherwise selected field sites.

- (iii) Memorandum of Understanding between Anchor Institute of Dharmsinh Desai University and PI Industries, Panoli and Jambusar of Dist. Bharuch, dated 7 January, 2013 to identify skill gap areas in the Chemical sector and suggest designing short term industry responsive courses/vocational courses.
- (iv) Memorandum of Understanding between Dharmsinh Desai University and Bharuch Enviro Infrastructure Limited, Ankleshwar on the following forms of cooperation dated 7 January, 2013.
- Internship, projects and placement of students
  - Training and consultancy for the employees of both the organizations.
  - Joint Educational, Project and Research Activities
  - Exchange of academic materials and academic publications ( Library membership)
- (v) Memorandum of Understanding between Dharmsinh Desai University and Dev Information Technology Pvt Ltd, Block -14, Aaryans Corporate Park, Thaltej, Ahmedabad-38005 in Vibrant Gujarat-2013 organized during 11-13 January, 2013
- (vi) Memorandum of Understanding between Dharmsinh Desai University and Jani Clays Pvt. Ltd. (Vatva, Ahmedabad), dated 7 January, 2013.
- (vii) Memorandum of Understanding between Dharmsinh Desai University and Gujarat Energy Research and Management Institute (GERMI) dated 10 January, 2013.
- (viii) Memorandum of Understanding between Anchor Institute of Dharmsinh Desai University and eiTra, which is University programme partner of Texas Instruments to establish a teaching lab facility at DDU in the area of Analog System Design dated 6 July, 2013.
- (ix) Memorandum of Understanding between Anchor Institute of Dharmsinh Desai University and Rajiv Machine Tools, Ahmedabad in Vibrant Gujarat-2013 organized during 11-13 January, 2013.
- (x) Memorandum of Understanding between Anchor Institute of Dharmsinh Desai University and Vasa Pharmachem Pvt. Ltd. Ahmedabad in Vibrant Gujarat-2013 organized during 11-13 January, 2013.

**3.7.4 Have the university-industry interactions resulted in the establishment / creation of highly specialized laboratories /facilities?**

Please Refer details of Shah-Schulman Center for Surface Science and Nanotechnology in 3.3.6 to avoid duplication of data.

**ANNEXURE 3A  
MAJOR RESEARCH PROJECTS**

<b>Sr. No.</b>	<b>Title</b>	<b>Principle Investigator and Team</b>	<b>Funding Agency</b>	<b>Year of sanctioned</b>	<b>Duration in years and Status(Ongoing/completed)</b>	<b>Amounts (Rs.in lacs)</b>
1	Enhanced Oil Recovery using Nano materials	Dr. M.K. Mishra, Dr. Atindra D. Shukla	Oil and Natural Gas Corporation (ONGC), Ahmedabad	2015	2 years (Ongoing)	39.30
2	Development of multifunctional catalysts for alcohol activation	Dr. M.K.Mishra	UGC	2015	3 years (Ongoing)	10.90
3	Synthesis, characterization and application of novel green corrosion inhibitors	Dr. Atindra Shukla	UGC	2015	3 years (Ongoing)	14.00
4	Designing a Reflecting Light Microscope for 3D Imaging of Thick and Irregular Surface	Dr. Atindra Shukla, Tejal Soni, R.S. Chhajad, H.S. Mazumdar	DST-Govt of India	2015	3 years (Ongoing)	80.76
5	“Virtual Labs (VLabs) Project” under NMEICT-Sakshat Programme	Prof. (Dr.) Vinod Kumar, Dy. Director, IIT Roorkee, Prof. Jignesh G. Bhatt, as Nodal Centre Coordinator	MHRD -Govt of india,	2015	6 months , Ongoing,w. e.f. 01/04/2015 wide an EOI signed with IIT-Roorkee	--
6	Removal of odor (VOCs) from polymers or paint formulation by adsorption	Dr.M.K.Mishra, Dr.Atindra Shukla, Dr. Bhavesh Bharatiya	Asian Paints, Ltd., Mumbai, India	2014	2 years (Ongoing)	13.54
7	Synthesis, Characterization, Cytotoxicity and burn wound healing potential of antifungal loaded silver nanoparticle hydrogel for burn infections	Mr. Nayan Patel, Dr. Tejal Soni, Dr. Atindra Shukla, Dr. B N Suhagia	BIRAC	2014	1.6 (Ongoing)	49.70
8	Remote Controlled Gyro Stabilized Camera Gimbal	Prof. C K Bhensdadia, Prof. Brijesh Bhatt, Prof Parth Dave	YA Software LLP , Baroda	2014	1 year (Ongoing)	13.00

9	Solar City – Smart Grid Project “Development of a City-Level Smart Communication System for Monitoring, Recording, Assessment and Forecasting of Power from Distributed Source of Generation”	Prof. J. G. Bhatt, Dr. Omkar Jani	GERMI	2013	2.5 Years, Ongoing w.e.f. 10/01/2013 wide an MoU signed in Vibrant Gujarat – 2013 with Gujarat Energy Research and Management Institute (GERMI), Gandhinagar	---
10	Dynamic surface tension of surfactant and polymer solution in relation to stability and rheology of solid liquid dispersion	Dr. Bhavesh Bharatiya	DST – FAST TRACK	2013	3 yrs (Ongoing)	11.50
11	Development of embedded and FPGA Application modules for space payload	Dr. H.S. Mazumdar, Prof. R.S. Chhajed	PRL	2013-14	3 yrs (Ongoing)	32.18
12	MHRD, Govt. of India sponsored “VSAT-Enabled Mobile e-Learning Terminals (MeLT) Project” under NMEICT-Sakshat Programme	Prof. (Dr.) H. K. Verma and Prof. (Dr.) Vinod Kumar, Dy. Directors, IIT Roorkee, Prof. J. G. Bhatt as Network Institute Coordinator	MHRD, Govt. of India via wide an MoU signed with IIT-Roorkee Uttarakhand, India.	2010	2 Years, Completed	13.76
13	A novel route for Synthesis of Silica supported Metal Sulfonates Solid Acid Catalysts and their Applications	Dr. M.K. Mishra	DST, SERC, New Delhi, India, under Fast Track Projects for Young Scientists	2010	3 years; August 2010 to August 2013 (Completed)	19.91
14	Planetary exploration technology research	Dr. H.S. Mazumdar, Prof. R.S. Chhajed	PRL	2010-11	3 (Completed)	38.70
15	Nanotechnology to provide drinking water to poor nations	Dr. P.R. Shukla, Dr. P.A. Joshi	GSFC science foundation	2010	2010-2015 (Completed)	10.27



16	Indradhanush: Wordnet for Seven Indian languages	Prof. C. K. Bhensdadia, Prof. B. S. Bhatt	DeiTY	3 Years	(Ongoing)	35.00
17	EILMT: English to Indian Language MT	Prof. C. K. Bhensdadia, Prof. B. S. Bhatt	DeiTY	3 Years	(Ongoing)	76.00
18	Mobile e-Learning Terminals (MeLT)	Prof. J.G.Bhatt, Prof. M.T.Mehta	MHRD-IIT R	2010	4 months (Completed)	12.00
19	Center of Excellence for Nanocatalysis: Development & Applications	Dr. P.A. Joshi, Dr. M.K. Mishra & Dr. D.O. Shah	Gujarat Council on Science and Technology (GUJCOST), Government of Gujarat, India	2009	3 years; April 2009 to March 2012 (Completed)	28.00
<b>Total Funding Cost in (Rs. in lacs)</b>						<b>498.52</b>

**ANNEXURE 3B  
MINOR RESEARCH PROJECTS**

<b>Sr. No.</b>	<b>Title</b>	<b>Principle Investigator and Team</b>	<b>Funding Agency</b>	<b>Year of sanctioned</b>	<b>Duration and status of projects</b>	<b>Amounts (in lacs)</b>
1	Conversion of 1,2,3-trichlorobenzene into valuable chemicals	Dr.M.K.Mishra, Dr. Atindra Shukla	Kutch Chemical Industries Limited, Baroda	2015	6 months (Ongoing)	2.16
2	Synthesis and characterization of surfactant micelles in ionic liquid and application in catalysis	Dr. Bhavesh Bharatiya	UGC	2015	3 yrs (Ongoing)	8.50
3	Model based measurements of radiation	Dr. H.S. Mazumdar, Prof. R.S.Chhajed	UGC	August 2015	2 years (Ongoing)	4.90
4	Clinical evaluation of beet root and prickly pear in the management of anemia: A Randomized Clinical Trial	Dr Sanjay P. Chauhan, Dr B. N. Suhagia	GUJCOST, Govt of Gujarat	2015	3 years (Ongoing)	7.25
5	Development and optimization of Herbal Formulation for the treatment of Diabetes Mellitus	Mr. Tushar R Patel, Dr. Tejas B Patel Dr. B. N. Suhagia	GUJCOST	2015	2 years (Ongoing)	7.70
6	Evaluation of cardioprotective activity of <i>Corchorus aestuans</i> L. against isoproterenol induced myocardial infarction in rats.	Mrs. Carol P. Macwan, Dr. Tejas B Patel, Dr. B. N. Suhagia	GUJCOST	2015	2 years (Ongoing)	4.70
7	“Surface and colloidal study of black board chalks in order to modify them in to dustless chalk”	Dr. Manish Thakker, Dr. D.O. Shah	GUJCOST	2014	2 Years (Ongoing)	3.15
8	A study on particle engineering & poorly compressible pharmaceutical material by dry particle coating using lab scale mist generator	Dr. Tejal Soni, Dr. Manish Thakker	DST IEDC	2014	1 Year Completed	1.00

9	Design & Development of Six Minutes Walk Tester”	Prof. Shashank Shah	DST-IEDC	2014	1 year Completed	1.00
10	Catalytic route for synthesis of decanonitrile	Dr.M.K.Mishra, Dr. Manish Dixit, Dr. Atindra Shukla	Transpek Industry, Ltd., Vadodara, India	2014	6 months Completed	4.34
11	Development of efficient micellar media for green catalytic organic reactions	Dr.M.K.Mishra	Gujarat Council on Science and Technology (GUJCOST), Government of Gujarat, India,	2014	2 years (Ongoing)	3.95
12	A study on particle engineering on poorly compressible pharmaceutical material by dry particle coating using lab scale mist generator	Manish Thakkar, Tejal Soni, Juhi rana	IEDC	2014-15	1 year Completed	0.80
13	Development of novel womsn’s friendly antifungal microemulsion loaded gel of tree tea oil-curcumin-alkylpolyglucoside	Atindra sukla, Tejal Soni Khushbu Bhatt	IEDC	2014-15	1 year Completed	0.80
14	Formulation and evaluation of microemulsion based delivery system for <i>Boswellia serrata</i>	Tejal Soni, M C Gohel, Asha Patel	GUJCOST	2014-15	2 years (Ongoing )	4.50
15	Measurement and control of temp using neural network based prediction algorithm for industrial and space application	Dr H. S. Mazumdar, Prof Chirag Dalal	DST-IEDC	2013	1 year Completed	1.00
16	Development of ultra low interfacial tension measurement instrument	Prof. M. T. Thakker, Prof. S. P. Gaur	DST-IEDC	2013	1 year Completed	1.00

17	A Study of Photocatalytic Degradation of Organic Compounds from Industrial Effluents	Dr. Vimal Gandhi, Dr. Manish Mishra	Ambernath Organics Pvt. Ltd., Mumbai	2013	6 months, Completed	2.04
18	Extraction of Sugars from Molasses and Value Addition to Extracted Sugars	Dr. M.K. Mishra, Siddharth Modi	DST-IEDC	2013	6 months; Completed	1.00
19	Alternative Route for the Synthesis of CPC	Dr. Manish Mishra, Dr. Manish Dixit	Narayan Organics Pvt. Ltd.	2013	6 Months Completed	1.20
20	Development and evaluation of Herbal Anti-aging cream formulation	Dr. Atindra shukla, Tejal Soni Mayur Patel	DST-IEDC	2013-14	1 year Completed	1.00
21	Evaluation of Surfactant Properties	Dr. Atindra Shukla, Dr. Bhavesh Bharatiya	Syntron Industries Limited	2013	3 years (Ongoing)	3.00
22	Synthesis of Novel Green Surfactants	Dr. Atindra Shukla, Dr. Manish Mishra	Syntron Industries Limited	2013	3 years (Ongoing)	3.00
23	Synthesis of green surfactant (alkyl glycosides) from sugars available in molasses using solid acid catalysts	Dr. M.K. Mishra, Siddharth Modi	DST-IEDC	2012	6 months; Completed	1.00
24	A low cost maintenance solar powered drip irrigation system design	Dr H. S. Mazumdar, Prof Chirag Dalal	DST-IEDC	2012	1 year Completed	1.00
25	Design & Development of "Ultra Low Power Battery Operated Wireless Process Parameter Monitoring System using MSP430"	Prof. Shashank Shah	DST-IEDC	2012	1 year Completed	1.00
26	Inkjet as a drug delivery system	Dr. Atindra Shukla, Dr. Tejal Soni, B. N. Suhagia	Leo Lens Technologies Inc.	2012	1 year Completed	4.00
27	Investigation on Rheological and Surface properties of Writing Inks.	Dr. Bhavesh Bharatiya, Dr. Atindra Shukla	Hi-Shine Inks Pvt. Ltd	2012	2 Yrs	7.56

28	Titanium dioxide coating for hydrophobic and medical applications	Dr. M.K. Mishra, Dr. Sanjeev Kumar	DST-IEDC	2011	6 months; Completed	1.00
29	Design & Development of Project Titled “ Speed & Torque Control of Three Phase Induction Motor using Space Vector Modulation”	Dr. H. S. Mazumdar, Prof. Shashank Shah	DST-IEDC	2011	1 year Completed	1.00
30	Network Device Monitoring and checking system	Prof. M M Goswami,	DST Govt. of India under IEDC Program	2011	1 year Completed	1.00
31	Design & Development of “Home Automation System using microcontroller”	Prof. Shashank P. Shah	DST-IEDC	2010	1 year Completed	1.00
32	Development of Nanoclays for Nano-composite & Paint Formulations	Sunil Shah, Dr. Atindra Shukla, Dr. Manish Mishra	Jani Clays Pvt. Ltd.	2010	2 years Completed	8.00
33	Development of Stable Teflon Dispersions	Sunil Shah, Dr. Atindra Shukla,	Universal Medicap	2010	2 years Completed	1.00
34	Titanium dioxide coating for hydrophobic and medical applications	Dr. Manish Mishra	DST	2010	6 Months Completed	1.00
<b>Total Funding Amount (Rs. in lacs)</b>						<b>96.55</b>

**ANNEXURE – 3C**  
**Publications in International/National Journals**

**Research Papers in International Journals**

<b>Sr. No.</b>	<b>Title</b>	<b>Name of Author/s</b>	<b>Name of Journal</b>	<b>Year</b>	<b>Impact Factor</b>
1.	Model based robust peak detection algorithm of radiation pulse shape using limited samples	Rajendra Chhajed, Himanshu Purohit, Madhuri Bhavsar	International Journal of Computer Science, Volume 7, number 1, pp.-11-18	2016	2.800
2.	Smart Phone- FPGA based balloon payload using cots component	Lisha P. Gandhi Dr. H.S. Mazumdar	International Journal of Research in engineering and technology, volume 4 issue 3	2015	3.127
3.	Simulation and 3D visualization of complex molecular structure for study of protein and neon materials	Dr. H.S. Mazumdar Shivangi R. Shah	International Journal of Research in engineering and technology, volume 4 issue 2	2015	3.127
4.	Automatic registration, integration and enhancement of India's Chandrayan-1 images with NASA's LRO Maps	Vivek kumar Dr. H.S. Mazumdar	International Journal of Research in engineering and technology, volume 4	2015	3.127
5.	Radiation effect on silicon drift detector based x-ray spectrometer on board chandrayan-2 mission	M. Shanmugam, Y B Acharya Dr. H.S. Mazumdar	Journal of Instrumentation	2015	1.400
6.	A new technology for measuring the leakage current in silicon drift detector based x-ray spectrometer-implication for on board calibration	M. Shanmugam, Y B Acharya Dr. H.S. Mazumdar	Journal of Instrumentation	2015	1.400
7.	Enhanced Contrast of Reconstructed Image for Image Secret Sharing Scheme Using Mathematical Morphology	Y. K Meghrajani Dr. H.S. Mazumdar	Journal of Information Security, vol. 6, no. 4, pp 273-279	2015	1.380
8.	USRP N210 FPGA Loop back System	Satvik Patel, et al.	International Journal on Recent and innovation Trend in Computing and Communication, Vol 3, Issue 5	2015	5.837

9.	A Survey on Review Spam Detection Techniques	Krishna Vyas, Ankit P. Vaishnav	International Journal of Engineering Research and Technology, Vol. 4, Issue 4	2015	1.760
10.	Challenges of broken characters in character segmentation method for Gujarati printed documents	Riddhi Shah, Tushar Ratanpara	ICIIECS-2015	2015	
11.	A survey of Word Sense Disambiguation Techniques	Brijesh Bhatt	International Journal of Advance Foundation and Research in Computer	2015	0.860
12.	Optimal Air Pollution Control Strategy Based on Particle Size Distribution.	Dr.M.S.Rao	International Journal of Engineering Trends and Technology, Vol 20, No. 2, Page 83-94	2015	3.135
13.	Selection of Optimal Air Pollution Control Strategies.	Dr.M.S.Rao	International Journal of Research in Engineering and Technology,	2015	2.315
14.	Multi-Objective Optimization Considering Economical and Environmental Objectives of Multiproduct Batch Plant: An Industrial Case Study	Dr.M.S.Rao	International Journal of Advance Engineering and Research Development,	2015	3.134
15.	Segregation Tanks Suitability of Waste Water Equalization Systems for Multi Product Batch Plant	Dr.M.S.Rao	International Journal of Current Engineering and Technology,	2015	4.550
16.	Methyloxonium triflate: An efficient catalyst for ring opening of epoxides with alcohols under ambient conditions	Geeta Devi Yadav, Manish Mishra, Surendra Singh	Current Catalysis, 2015 (Accepted)	2015	No
17.	Study on catalytic property of NaOH-cationic surfactant solutions for efficient, green and selective synthesis of flavanone,	Manu Vashishtha, Manish Mishra, Dinesh O. Shah	Journal of Molecular Liquids, 2015 (Accepted)	2015	2.100
18.	Synthesis of Aluminium Triflate Grafted MCM-41 as Water Tolerant-Acid Catalyst for Ketalization of Glycerol with Acetone,	Kamlesh Tayade, Manish Mishra, Munusamy K., Rajesh S. Somani	Catalysis Science and Technology, 2015 (Accepted)	2015	4.750

19.	Molecular mechanism of micellar catalysis of cross aldol reaction: Effect of surfactant chain length and surfactant concentration	Manu Vashishtha, Manish Mishra, Sachin Undre, Man Singh, Dinesh O. Shah	Journal of Molecular Catalysis A: Chemical 396 (2015) 143-154	2015	3.679
20.	Effect of top soil wettability on water evaporation and plant growth	Bharat Gupta, D.O.Shah, Brijesh Mishra, P.A.Joshi, Vimal Gandhi, R.S.Fougat	Journal of colloid and interface science,	2015	3.552
21.	Review on Synchronization in OFDM system	K. J. Soni J. N. Patel H K. Shah	International Journal of Advanced Research in Computer and Communication Engineering,	2015	-
22.	Handwritten Character Recognition in English: A Survey	M. Patel, S. P. Thakkar	Indian Journal of Applied Research (National)	2015	-
23.	Dynamic adjustment of TCP's congestion control parameters after loss recovery for performance improvement in WLAN	P.D.Dalal, M. Sarkar, N.J. Kothari , K.S.Dasgupta	SCIRP Journal of Communication Networks and System Sciences, 8(5), pp: 130-145	2015	-
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264.	XML based architectures for documents comparison, categorization and scrutinization	Harshad B. Prajapati, Vipul K. Dabhi	International Journal of Document Analysis Techniques and Strategies by Inderscience	2010	-
265.	Dissection of the internal workings of the RMI, possible enhancements and implementing authentication in standard Java RMI	Vipul K. Dabhi , Harshad B. Prajapati	International Journal of Networking and Virtual Organizations	2010	-
266.	Nonlinear thermoelastic response of laminated composite conical panels (Pages 97-107)	R. M. Joshi, B. P. Patel	Structural Engineering and Mechanics Volume 34 (1)	2010	-
267.	Improved Forecasting of Time Series Data of Real System using Genetic Programming	D.P.Ahalpara	ACM 2010, ISBN 978-1-4503-0072-5	2010	-
268.	Forecasting of Spot Electricity Prices by Genetic Programming: Examples from the Nordic Power Market	Dilip Ahalpara Ingve Simonsen	Dynamics of Socio-Economic Systems 2, 183 (2010).	2010	-

269.	Spatial Data Quality: Implications and Risk	A.N. Roy, Bharat Raj	Journal of High Performance Communication Systems and Networking, 2010, Volume 2, (1-2), pp. 49–55, ISSN : 0975-6140	2010	-
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#### Research Articles Published in National Journals

Sr. No	Title of Paper	Name of Author/s	Name of Journal, Vol,page no.	year	Impact Factor
1.	FinFET- A Substitute of bulk-Si MOSFET in Nanometer Regime	M. J. Limachia, C. Makwana & N. J. Kothari	Indian Journal of Applied Research (National)	2015	-
2.	Oral Lichen Planus & Diabetes Mellitus	Haren Pandya	Journal of Research and Advancement in Dentistry	2015	-
3.	Myocardial salvaging effect of Premna mucronata Roxb. on isoproterenol induced myocardial necrosis in rats	Nayan G. Patel, Kirti V. Patel, Kalpana G. Patel, Tejal R. Gandhi	Der Pharmacia Lettre Vol. 7 Issue. 7 Pg. no; 137-147	2015	0.400
4.	Pulsatile Drug Delivery System	Vidhi Patel Vipul Patel	International Journal of Pharmaceutical Science & Research	2015	0.530
5.	Formulation and Evaluation of Effervescent Tablet of Sildenafil Citrate and Aspirin in Combination	Zil Patel, Dr.Vipul Patel	British Journal of Medicine and Health Reserach	2015	0.450
6.	Formulation and Evaluation of Effervescent Tablet of Sildenafil Citrate and Aspirin in Combination	Zil Patel Vipul Patel	British Journal of Medicine and Health Reserach	2015	2.350
7.	Pulsatile Drug Delivery System	Vidhi Patel Vipul Patel	International Journal of Pharmaceutical Science & Research	2015	0.530

8.	Myocardial salvaging effect of Premna mucronata Roxb. on isoproterenol induced myocardial necrosis in rats	Nayan G. Patel, Kirti V. Patel, Kalpana G. Patel, Tejal R. Gandhi	Der Pharmacia Lettre Vol. 7 Issue. 7 Pg. no; 137-147	2015	0.400
9.	Analytical Methodologies for the determination of Hydralazine: A Review	Kruti Shah, Sanjay P. Chauhan, B. N. Suhagia	Research and Reviews: Journal of Pharmaceutical Analysis , 3(2).	2014	-
10.	A Study on Antimicrobial Activity of Silica Supported Copper Oxide against Escherichia Coli	P.B. Shukla, Manish Mishra, * Shailesh Dave, Monal shah, Mamta Purohit	International Journal of Frontier Science and Technology, 2 (2014) 1-16	2014	-
11.	Silica supported copper, silver and iron for removal of E. coli from water	P.B. Shukla, Manish Mishra	SGVU International Journal of Environment Science and Technology, 2 (2014) 1-3	2014	-
12.	A State of Art Literature Review on Direct Displacement-Based Design for Seismic Structural Analysis,	Dohadwala A.T., Sheth R. K., Patel I. N.	IJESRT Vol 3(2)	2014	1.852
13.	Comparison of Base Shear for Forced-Based Design Method and Direct Displacement-Based Design Method,	Dohadwala A.T., Sheth R. K., Patel I. N.,	IJAERD Vol 1(6)	2014	3.134
14.	Direct Displacement Based Design for Fifteen Storey Reinforced Concrete Moment Resisting Frame as per IS Codes	Sheth R. K., Soni D. P., Sheth K. N.	IJAERD Vol 1(8)	2014	3.134
15.	Wireless tilt measurement system (PP 28-34)	Maulik Vala, Divya Gajera, Tigmanshu Patel, Manish Thakker	Recent Trends in Sensor research & Technology	2014	-
16.	Natal and neonatal teeth – A review	More C, Patel H, Adalja C	Indian journal of Dentistry. 5; 77-81.	2014	-
17.	Geographic Tongue An enigmatic Map: A case report	Rina Mehta, Kinjal Rindani, Shalini Agarwal, Haren pandya, Neelampari Parikh, Himani Tiwari, Grishma Doria	J Res Adv Dent; 3:2: 182-184	2014	-

18.	Nasopalatine Duct Cyst: A case report and mini review	Jitendra K Rajani, Hiren patel, Kinjal Rindani, Himani Tiwari, Kushal Shah	J Res Adv Dent ; 3:2; 179-181	2014	-
19.	Current trends in root coverage procedures.	Dr. Sanket Shiyani, Dr. Bimal S. Jathal, Dr. Hiral Purani	Dentimedia;2014:19(1):1-5	2014	-
20.	Ecofriendly substitute for xylene: Acomparative study	Dr. Ami Rawal, Dr. Jigar Purani, Dr. Jitendra Rajani, Dr. Bhpesht Patel, Dr. Grishma Doria, Dr. Kinjal Rindani	Journal of Oral and Maxillofacial Pathology 2014;18: S59	2014	-
21.	An evaluation of 0.2% hyaluronic acid gel (Gengigel®) in the treatment of gingivitis: A clinical & microbiological study.	Sahayata VN, Bhavasar NV, Brahmhatt NA.	Oral Health Dent Manag. Sep;13(3):779-85.	2014	-
22.	Paget's Disease- An unusual Osseous Dysplasia	Rina Mehta, Haren Pandya, Jigar Purani, Grishma Doria, Hiral Purani	Journal of Research and Advancement in Dentistry, 3:1 224-227	2014	-
23.	Ludwig's Angina: Diagnosis and Management – A clinical Review	Yash Soni, Hiren Patel, Haren Pandya, Hitesh Dewan, Bijal Bhavsar Urvi Shah,	Journal of Research and Advancement in Dentistry;3:2s:131-136	2014	-
24.	Recurrent verrucous carcinoma of hard palate – A case Report.	Parth Shah, Hiren Patel, Haren Pandya, Hitesh Dewan, Urvi Babaria, Bijal Bhavsar, Yash Soni, Jigar Thakker	Dentalraj;2:2:	2014	-
25.	Geographic Tongue An enigmatic Map: A Case report	Rina Mehta, Kinjal Rindani, Shalini Agarwal, Haren Pandya, Neelampari Parikh, Himani Tiwari, Grishma Doria	Journal of Research and Advancement in Dentistry, 2014; 3:2;182-184	2014	-
26.	Unilateral Condylar Hyperplasia – A case Report	Haren Pandya, Hiren Patel, , Urvi Shah, Bijal Bhavsar, Hitesh Dewan	Journal of Research and Advancement in Dentistry;3:3S:132-137	2014	-
27.	Analytical Methodologies for the determination of Hydralazine: A Review	Kruti Shah, Sanjay P. Chauhan, B. N. Suhagia	Research and Reviews: Journal of Pharmaceutical Analysis , 3(2).	2014	-

28.	Development and Validation OF RP-HPLC method for simultaneous estimation of Atazanavir and Ritonavir in their combined tablet dosage form	M.P. Gadhvi, A. Bhandari, B. N. Suhagia, U. H. Desai	Research Journal of Pharmacy and Technology, 6(2)	2013	-
29.	Simultaneous estimation of Atorvastatin calcium and Pioglitazone hydrochloride in tablet dosage form by reverse phase chromatography and high performance thin layer chromatography	Hiral J.Panchal Bhanubhai N. Suhagia	Der Pharma Chemica, ,5 (30):202-207.	2013	-
30.	Method development and validation of LC and Densitometric-TLC for simultaneous estimation of Rosuvastatin calcium and -Ezetimib in comined dosage forms	HiralJ.Panchal Bhanubhai N. Suhagia	Der Pharm Chemica, 5(3):208-215.	2013	-
31.	Development of a validated Stability indicating HPTLC method for Rufinamide in Bulk and its Pharmaceutical Dosage form	Apexa Patel, ArpitPatwari, Bhanubhai Suhagia	Journal of Chromatographic Science, 1-8.	2013	-
32.	Formulation Development of microparticles of Fenofibrate.,	Patel T B.,Patel L D.,Suhagia B N.,Soni T G.,Patel T R	Inventi Rapid: Pharm Tech, Vol. Issue 1.	2013	-
33.	Preparation and evaluation of selfmicroemulsifying drug delivery system for Fexofenadine hydrochloride	Akash M.Patel, Jitul B. Patel, Tejas B.Patel, B N. Suhagia, TusharR.Patel,	Journal of Drug Delivery and Therapeutics,3(4)	2013	-
34.	Colorimetric Method for Determination of Terolimus in bulk and Capsule Dosage form	Pragnesh Patel, Tushar Patel, Bhanubhai Suhagia	Inventi Rapid:Pharm Analysis and Quality Assurance.,vol 2	2013	-
35.	Polyherbal treatment for chronic kidney disease- a case study	Unnati V. Gohil, Patel MV, Gupta SN, Patel KB, Mandaliya V	Universal Journal of Pharmacy, 2(4): 44-47	2013	-

36.	Development and Validation of Stability Indicating Micellar Liquid Chromatography Method for Estimation of Tacrolimus in bulk and its Capsule Dosage form	Pragnesh Patel, Tushar Patel, Bhanubhai Suhagia	Inventi Rapid: Pharm Analysis and Quality Assurance vol. Issue 3	2013	-
37.	The Study of Total Facial Index in Living Subjects in Gujarat Region	Dr. Sapana Shah, Dr. Parth Pandya, Dr. Jignesh Vadgama, Dr. Sanjay Chavda, Dr. S. P. Rathod , Dr. S. V. Patel	National journal of integrated research in medicine,3(4),95- 97	2013	-
38.	Determination of sex from the anterior border of human hip bone	Mitesh Shah1, Shailesh Patel2, SP Rathod3, SV Patel2, Parth Pandya2, Jignesh Vadgama2, Sapna Shah2	International Journal of Medical Science and Public Health ,2 (2),313- 316	2013	-
39.	Papillon lefvre syndrome: Case series and review of literature.	Bhavasara MV, Brahmbhatt NA, Sahayata VN, Bhavasara NV.	J Indian Soc Periodontol. Nov;17(6):806- 11.	2013	-
40.	Radiographic study of mental foramina in a selected Indian population in Kheda district, Gujarat.	Shah P, Parikh K, Shah M, Pathan F.	Journal of Indian Academy of Oral Medicine and Radiology;25(1),1 3-17.	2013	-
41.	An unusual case of Mucoepidermoid carcinoma	Bijal Bhavsara, Hiren Patel, Haren Pandya, Hitesh Dewan, Urvi Babaria,	Bhavnagar University's Journal of Dentistry (BUJOD); 3;2;72- 74	2013	-
42.	Multiple Sialoliths In Wharton's Duct - A Case Report	Hitesh Dewan, S. K. Dewan, Hiren Patel, Haren Pandya, Bijal Bhavsara, Urvi Shah	Bhavnagar University's Journal of Dentistry (BUJOD) ;3;2;99- 101	2013	-
43.	Optimization program for selection of pollution prevention and control strategies	Dr.M.S.Rao Dr.A.P.Deshmukh	Journal of Research in Technology and Management	2012	-
44.	Optimal selection of environment friendly fuel using MINLP, Control of Industrial Gaseous Emission	Dr.M.S.Rao Dr.A.P.Deshmukh	Bonfring	2012	-

45.	A case report of papillon-lefevre syndrome	Shah P, Shah M, Parikh K, Pathan F	journal of pierre fauchard academy; vol.26,64-68	2012	-
46.	Radiographic analysis of ameloblastoma: a retrospective study	More C, Tailor M, Patel HJ, Asrani M, Thakkar K, Adalja C	Indian journal of dental research. 23;5;698	2012	-
47.	Management of Palatally Impacted Canine – A Case Report	Prof. (Dr.) Anuranjan Das, Prof.(Dr.) Uttam Deb, Dr. Amal Chakraborti, Dr. Harshkumar M Mandan	West Bengal State JIDA Vol. 28 Nov. 2012 No. 3	2012	-
48.	Oral Submucous fibrosis – A Hospital Based retrospective study; –	More C, Asrani M, Patel H, Adalja C,	Journal of Pearldent. 1;4;25-31	2012	-
49.	Correlation and regression analysis of stature in relation to head length in children.	Dr. Parth M. Pandya, Dr. Suresh P. Rathod, , Dr. Shamin V. Patel, Dr. Shailesh M. Patel, Dr. Ankur Z. Zalawadiya, Dr. Sapana B. Shah, Dr. Jignesh D. Vadgama, Dr. Mitesh A. Shah	National journal of integrated research in medicine, 3(3), 43-46	2012	-
50.	Morphometric Study of Mental Foramina in Dentate and Edentulous Human Mandible in Gujarat Region	Dr. Jignesh D. Vadgama, Dr. Suchita M. Chaudhari, Dr. Shamin V. Patel, Dr. Suresh P. Rathod, Dr. S. M. Patel, Dr. Ankur Z. Zalawadia, Dr. Sapana B. Shah, Dr. Parth M. Pandya, Dr. Mitesh A. Shah	National journal of integrated research in medicine, 3(3), 47-51	2012	-
51.	The Study of Cephalic Index in Living Subjects in Gujarat Region.	sapana Shah, S. P. Rathod, S. V. Patel, T. C. Singel, S. M. Patel, Parth Pandya	National journal of integrated research in medicine, 3(4), 54-56	2012	-
52.	A double blind controlled trial comparing three treatment modalities for dentin hypersensitivity.	Brahmbhatt NA, Bhavasar NV, Sahayata VN, Acharya A, Kshtriya P.	Med Oral Patol Oral Cir Bucal. May 1;17(3):e483-90.	2012	-
53.	A case report of papillon-lefevre syndrome	Shah P, Shah M, Parikh K, Pathan F.	journal of pierre fauchard academy; vol.26,64-68	2012	-

54.	Simultaneous Determination of Moxifloxacin Hydrochloride and Dexamethasone Sodium Phosphate in eye Drops by HPLC and Absorbance Correction Method	M.J.Ddabhi, A.H.Patwari, U H Desai, D B Doshi, I S Rathod B N Suhagia	Journal of Chemical and Pharmaceutical Research , 4(10):4462-4467	2012	-
55.	Simultaneous Determination of Ritonavir and Lopinavir in Combined Tablet Dosage Form by HPTLC Method	A.H . Patwari, Patel K.A, Dabhi M. J., Desai U H, Ezhava S. B, Rathod I.S, Suhagia B.N	Journal of Pharmacy and Bioanalytical Science, Vol.1 Issue 2, 56-61	2012	-
56.	Simultaneous Determination of Ritonavir and Atazanavirjn combined Tablet dosage form by HPTLC,	Manoj Gadhavi, Anil Bhandari, Bhanubhai Suhagia, Ishwarsinh Rathod, Urvish Desai, Arpit Patwari, KetanVariya	Asian Journal of Biomedical and Pharmaceutical Sciences.2(15),15-19.	2012	-
57.	Simultaneous Determination of Ritonavir and Lopinavir in Combined Tablet Dosage form by HPTLC Method..,	Patwari A H, Dabhi M J, Desai U H, Ezhava S B, Rathod I S, Suhagia B N	Journal of Pharmacy and Bioanalytical Science, Volume 1, Issue 2, 56-61	2012	-
58.	Simultaneous estimation of Eprosartan and Hydrochlorthiazide in tablets by high performance liquid chromatography	Harsha U. Patel, Bhanubhai N. Suhagia, Chaganbhai N. Patel	Pharmaceutical methods, 2(2), 143-147.	2011	-
59.	Development and validation of spectrophotometric method for simultaneous estimation of sumatriptan succinate and naproxen sodium in -pharmaceutical dosage forms	SagarD.Solanki, Paresh U Patel, BhanubhaiN.Suhagia	Journal of Pharmaceutical Science and Bioscientific Research,1(1),50-53	2011	-
60.	Development and validation of an HPTLC Method for the analysis of oleanolic acid from	Pinal A. Harde, DineshR.Shah, BhanuN.Suhagia MamtaB.Shah	Journal of Planar Chromatography 24, 6 503-506.	2011	-



	the roots of Helicteres Linn.				
61.	Oral lesions of tuberculosis – an overview.	More CB, Patel HJ, Asrani M, Thakkar K, Das S.	Journal of Orofacial & Health Sciences, 2;2;41-44.	2011	-
62.	Management of peripheral giant cell granuloma in 4½ year old child: A case report;	Dr.Kinjal Rindani	Journal of Oral Health Research;2011;2;7 9-83	2011	-
63.	Design,synthesis and pharmacological screening of 4-amino-5-pyrimidinecarbonitrile as potential antiinflammatory agents	KapuparaP.P., Dholakia S. P. Patel V.P. Suhagia B. N.	Journal of chemical and Pharmaceutical Research, 2(3):287-294	2010	-
64.	Development and validation of HPLC method for the estimation of emtricitabin in capsule dosage form.	Bhavini N.Patel, Bhanubhai N.Suhagia Chhaganbhai N. Patel	Asian Journal of Research in Chemical .3(4): 869-871	2010	-
65.	Rapid Quantification of Lamotrigine in Human Plasma by two LC system Connected with Tandam,	M S.Hiten J. Shah, Gunta Subbaiah, Dasharath M.Patel, Bhanubhai N.Suhagia and Chhagan N. Patel	Journal of Chromatographic Science, Vol. 48:375-381.	2010	-
66.	Simultaneous analysis of Atorvastatin Calcium and Losartan potassium in tablet dosage form by RP-HPLC and HPTLC.	H. J. Panchal, B.N.Suhagia,	Acta Chromatographica, 22(2), ,173-187.	2010	-
67.	Giant submandibular salivary gland sialolith; A case report	Vandana shah, Himani Tiwari Chaturvedi, Chandrashekher Chaturvedi	Archives of dental Sciences, Vol 2, Issue 3 , 40-43	2010	-
68.	Unicystic ameloblastoma in relation to impacted right mandibular canine	Dr. Hiren Patel, Dr. Jigar M. Purani, Dr. Chintan Thakkar	Guident August 2010	2010	-
69.	Parry-Romberg Syndrome - A rare entity	Hiren Patel, Chintan Thakkar, Kajal patel	Journal of Maxillofacial & Oral Surgery; 9;3;247-250	2010	-

### Research Articles Published in University Journals

Sr. No.	Title of Paper	Name of Author/s	Name of Journal, Vol	year
1	Secret Sharing using Visual Cryptography and Visual Steganography	Yogesh Meghrajani, and Himanshu Mazumdar	Journal of Research in Technology and Management - special issue on research methodology in information and communication technology	2016
2	Effect of Timolol Maleate Concentration on Uptake and Release from Hydrogel Contact Lenses using Soaking Method	Furqan a. Maulvi, tejal g. Soni, dinesh o. Shah	Published by UKA tarsadia university : Journal of Pharmacy and Applied Sciences July-December Volume 1 Issue 1 16-22	2014
3	Butadiene Rubber: A Review	Siddharth Modi, M Maiti, Ankur Chavada	Journal of Research in Technology and Management, 2013, 2(1), 26-32	2013
4	Data mining for Proteomic tasks	Maulika S Patel and Himanshu S Mazumdar	DDU Journal of Research in Technology and Management Vol.1, No.1	2013
5	Earth rock classification using Neural Network	Pratik V Patel and Himanshu S Mazumdar	DDU Journal of Research in Technology and Management Vol.1, No.1	2013
6	A Survey of TCP Performance Issues and Related Enhancement Schemes over Wireless Network Environment	P.D.Dalal K.S.Dasgupta	Journal of Research in Technology and Management, Vol 1. Issue 1, pp. 1-7.	2012
7	Global multidecadal temperature oscillation's role in masking global warming	Prasanta K. Panigrahi, Sudhanshu Pandey, Krishna H. Chakrawarty, Dilip P. Ahalpara	National workshop on Wavelets, Multiresolution and Multifractal Analyses in Earth, Ocean and Atmospheric Sciences – Current Trends (WMMFA-2012)	2012
8	Extraction of Ni(II) from Water Using Emulsion Liquid Membrane Process	Mihir P.Shah, M.S.Rao	Journal of Research in Technology and Management Vol.1, No.1,	2011

**ANNEXURE – 3D**  
**LIST OF PATENTS/BOOKS/BOOK CHAPTER S**

**Patents**

<b>Sr. No.</b>	<b>Title</b>	<b>Name of faculty member/s or group member/s</b>	<b>Type (i.e., US, European, or Indian etc. )</b>	<b>Patent No.</b>
1	Gellable Spray Formulatioon for Wounds, Burnt skin infections, Bruises and Cuts	Nayan G. Patel, Atindra Shukla, Tejal G. Soni, B N. Suhagia	Indian Patent	TEMP/E1/19866/2015MUM

**Books**

<b>Sr. No.</b>	<b>Title</b>	<b>Name of Author/s</b>	<b>Publisher group</b>	<b>ISBN No.</b>
1	Design & Analysis of Algorithm	Prof. Himanshu B Dave Prof. Parag H. Dave	Pearson India	8177585959
2	Compilers : Principles and Practice	Prof. Himanshu B Dave Prof. Parag H. Dave	Pearson India	8131776115
3	Modeling and Simulation of ARM Processor Architecture Using SystemC	M. J. Limachia & N.J.Kothari	LAMBERT Academic Publishing, Germany	978-3-659-12088-6
4	The 8051 microcontroller based Embedded systems	M.K. Patel	McGraw Hill Education (India) Pvt. Ltd., New Delhi	(10):9332901252 (13):9789332901254
5	<i>E-Governance of Smart Cities</i> Vol. 2, Advances in 21st Century Human Settlement	Jignesh G. Bhatt and Omkar K. Jani as Principal Co-Authors Ed. T.M. Vinod Kumar	Springer, Germany Printed in Singapore	2015, XXI, 390, ISBN: 978-981-287-286-9 (Print) 978-981-287-287-6 (online), DOI: 10.1007/978-981-287-287-6, Series ISSN: 2198-2546
6	<i>E-Democracy in Smart Cities</i> Vol. 4, Advances in 21st Century Human Settlement	Jignesh G. Bhatt and Omkar K. Jani as Principal Co-Authors Ed. T.M. Vinod Kumar	Springer, Germany To be printed in Singapore	Accepted To be published in 2016

7	Nanoparticle For Pulmonary Drug Delivery System (2013).	Priya patel, Tejal Soni	Lambert Academic Publishing	10: 3659417335-13: 978-3659417337
8	Phytochemical Composition & Pharmacological Action of Opuntia Species: A Review	Chauhan Sanjay	Lambert Academic Publishing	978-3-8465-1588-4
9	Studies in development of fluid bed granulation technique for Diclofenac Sodium	Tejas B Patel	Lambert Academic Publishing	978-3-847-2800-1
10	Inorganic Pharamceutical Chemistry	Dr. B. N. Suhagia, Dr. N. P. Jivani, Dr. C.N. Patel	Thakur Publication	978-93-82514-04-6
11	Pharmaceutical Chemistry-IV (Organic Chemistry-I)	Dr. B. N. Suhagia, Dr. N. P. Jivani, Dr. C.N. Patel	Thakur Publication	978-93-82249-35-1

### Book Chapters

Sr. No.	Title of Book and ISBN No.	Title of Chapter	Name of Author/s	Page No.	Publisher group
1	Computer Aided Chemical Engineering (vol.37) ISBN:978-0-444-63429-0	Performance Evaluation of Bayesian State Estimators for Nonlinear DAE Systems Using a Moderately High Dimensional Reactive Distillation Column Model,	Dr.J.L.Purohit	pp. 1763-1768	Elsevier pub.
2	Materials Science Forum 978-3-03785-547-8	Photocatalytic Degradation of Alizarin Cyanine Green G, Reactive Red 195 and Reactive Black 5 using UV/TiO <sub>2</sub> Process,	Jaimin Vyas, Manish Mishra, Vimal Gandhi	Vol. 764, 2013, pp 284-292	Trans tech publications
3	Materials Science Forum Special topic volume on "Photocatalytic Materials & Surfaces for Environmental Cleanup-II" 978-3-03785-547-8	Metal Doped Titanium Dioxide: Synthesis and Effect of Metal ions on Physico-chemical and Photocatalytic properties	Sajid I. Mogal, Manish Mishra, Vimal G. Gandhi, Rajesh J. Tayade	Vol. 734, 2013, Pp 364-378	Trans tech publications
4	Materials Science Forum, Special topic volume on "Photocatalytic Materials &	Titanium dioxide catalyzed photocatalytic degradation of carboxylic acids from waste water	V.G. Gandhi, M.K. Mishra, P.A. Joshi	Vol. 712, 2012, 175-189	Trans tech publications

	Surfaces for Environmental Cleanup 978-3-03785-547-8				
5	Mathematical Methods, Models and Algorithms in Science and Technology	Cognitive Radio: State-of-the-Art and Mathematical Challenges	V. M. Thumar	182-227	World Scientific
6	<i>E-Governance of Smart Cities</i> Vol. 2, Advances in 21st Century Human Settlement Ed. T.M. Vinod Kumar ISBN: 978-981-287-286-9 (Print) 978-981-287-287-6 (online) ISSN: 2198-2546	"E-Governance for Photovoltaic Powergrid: Solar City Gandhinagar, Gujarat, India."	Jignesh G. Bhatt and Omkar K. Jani	177-230	Springer, Germany Printed in Singapore
7	<i>Handbook of Research on Emerging Technologies for Electrical Power Planning, Analysis and Optimization</i> , Advances in Computer and Electrical Engineering (ACEE), Ed. S. Patnaik ISSN: 2327-039X, EISSN: 2327-0403	"Building Automation Systems: Recent Trends, Design and Development"	Jignesh G. Bhatt	(in press)	IGI Global, USA
8	<i>E-Democracy in Smart Cities</i> Vol. 4, Advances in 21st Century Human Settlement Ed. T.M. Vinod Kumar	"Experiences of Citizens from Photovoltaic Powergrid: Solar City Gandhinagar, Gujarat, India."	Jignesh G. Bhatt and Omkar K. Jani., 2015, (accepted, under process).	Accepted	Springer, Germany To be printed in Singapore
9	Traditional Medicine and Globalization: The future of Ancient systems of medicine ISBN :978-81-928243-0-3	Phytochemical screening and Hematinic activity of fruits of <i>Opuntia elatior</i> Mill	Chauhan Sanjay P. and Sheth Navin R	533-545	Maven Publishers, Kolkata, India

**ANNEXURE – 3E**  
**List of Papers presented in International/ National Conferences**

<b>Sr. No.</b>	<b>Title of Paper</b>	<b>Name of Author/s</b>	<b>Conference Details</b>	<b>Oral/Poster presentation</b>	<b>Year</b>
1.	Optical Music Notes Recognition for Printed Piano Music Score Sheet	Apurva A Mehta, Malay S Bhatt	IEEE, ICCCI 2015	Oral	2015
2.	Fast Scale Invariant Multi-view Face Detection From Color Images using Skin color segmentation & trained cascaded face detectors	Ashish Gor, Malay Bhatt	IEEE, ICACEA-2015	Oral	2015
3.	A Novel Approach for Vehicle Detection and Classification	Hariom A. Pandya, Malay S. Bhatt	IEEE, ICCCI 2015	Oral	2015
4.	Facial Expressions Extraction From 3D Sonography Images	Parth Dave, Malay Bhatt	IEEE, ICECCT 2015	Oral	2015
5.	Expectation Maximization Algorithm for Domain Specific Ontology Extraction	Brijesh Bhatt Pushpak Bhattacharya	CICILING 2015	Oral	2015
6.	Performance Evaluation of Bayesian State Estimators for Nonlinear DAE Systems Using a Moderately High Dimensional Reactive Distillation Column Model	J.L.Purohit, S.C.Patwardhan, S.M.Mahajani	12 <sup>th</sup> International Symposium on Process System Engineering and 25 <sup>th</sup> European Symposium on Computer Aided Process Engineering (PSE-ESCAPE), Copenhagen, Denmark	Oral	2015
7.	Adaptive Optimizing Control of an Ideal Reactive Distillation Column	Jayaram V., J.L.Purohit, S.C.Patwardhan S.M.Mahajani	9 <sup>th</sup> international Symposium on Advanced Control of Chemical Processes (ADCHEM-2015, an IFAC Event) Canada	Poster	2015

8.	State Estimation of a Reactive Distillation System Using Multi-rate DAE-EKF	J.L.Purohit, S. C. Patwardhan, S. M. Mahajani	1st Indian Control Conference, icc-2015, Madras	Oral	2015
9.	Degradation of Reactive Red 195 dye from Waste Water using Electrolysis Process	Nimisha Patel, Dr.V.G.Gandhi, Dr.Avinash Deshmukh,	3 <sup>rd</sup> Afro-Asian International Conference on Science, Engineering & Technology (AAICSET-2015), GEC, Bharuch	Oral	2015
10.	Strategies of ultra low energy reverse osmosis process development	Pranav Rana, Dr.V.G.Gandhi, Dr.Avinash Deshmukh Hiren Raval	3 <sup>rd</sup> Afro-Asian International Conference on Science, Engineering & Technology (AAICSET-2015), GEC, Bharuch	Oral	2015
11.	Micelle: Nanosize Colloidal Aggregates; An Efficient Catalytic Reactor for Selective Synthesis of Industrially Important Cross Aldol Product (Jasminaldehyde) under Green Condition	Dr.M.K.Mishra	International Union Of Material Research Society (IUMRS), at Fukuoka University, Japan	Oral	2015
12.	Joint Estimation of MCFOs and Channels in Cooperative Communication for LTE-Advanced	Dhaval Khant, Hardip Shah	4 <sup>th</sup> IEEE International conference on communication and signal processing	Oral	2015
13.	Analysis of acoustic signals for vehicle classification of four wheeler models using feature extraction methods	Shah M L & Mehta P D	IEEE International Conference on Recent Advances and Innovations in Engineering	Oral	2015
14.	Automated Segmentation of Multiple Sclerosis Lesions Using Statistical Approach	Yamini Sharma, Yogesh K. Meghrajani	IEEE 2nd Conference on Innovations in Information, Embedded and Communication Systems	Oral	2015

15.	FinFET- A Substitute of bulk-Si MOSFET in Nanometer Regime	Prof. Mitesh Limachia, Mr. Chirag Makwana and Dr. Nikhil Kothari	SITICAiE Saffrony Institute of Technology	Oral	2015
16.	Brain Tumor Extraction From MRI Image Using Mathematical Morphological Reconstruction	Yamini Sharma, Yogesh K. Meghrajani	IEEE 2nd Conference on Emerging Technology Trends in Electronics, Communication and Networking	Oral	2015
17.	Saliency Based Automatic Image Cropping Using Support Vector Machine Classifier	Nehal Jaiswal, Yogesh K. Meghrajani	IEEE 2nd Conference on Innovations in Information, Embedded and Communication Systems	Oral	2015
18.	Automatic Image Cropping Using Saliency Map	Nehal Jaiswal, Yogesh K. Meghrajani	International Conference on Industrial Instrumentation and Control	Oral	2015
19.	Exercised based Evaluation of Cardiopulmonary System	Patel Mitul B., and Shah Vipul A.	Engineering : Issue , Opportunities and Challenges for Development (EIOCD-2015)	Oral	2015
20.	Design and Implementation of Pilot System for Automation for Charging of Capacitor Bank System of ADITYA Tokamak, IPR, Gujarat, India	Anal Shah, Jignesh Bhatt, and Chhaya Chavada	IEEE Sponsored 2nd International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS'15), Kar pagam College of Engineering, Coimbatore, India	Oral	2015
21.	An Approach for Optimization of Agricultural Parameters and Resources using Wireless Automation	Pari Acharya, and Jignesh Bhatt	Third International Conference on Creativity and Innovations at	Oral	2015



			Grassroots (ICCIG-2015), Indian Institute of Management (IIM), Ahmedabad, India, January 19-22, 2015, Theme: Farm and Non-Farm Innovations		
22.	Mood recognition using Indian Music : A Survey	Ravindra Vyas	International Conference on Electrical, Electronics, Signals, Communication and Optimization (EESCO) - 2015	Oral	2015
23.	Taking a deep breadth before jumping into research in computer science and engineering	Harshad B. Prajapati, Vipul K. Dabhi, C.K.Bhensdadia	5th International Conference on Advanced Computing & Communication Technologies, 21-	Oral	2015
24.	Developing Postfix-GP Framework for Symbolic Regression Problems	Vipul K. Dabhi, Sanjay Chaudhary	5th International Conference on Advanced Computing & Communication Technologies	Oral	2015
25.	Study and analysis of particle swarm optimization for improving partition clustering	Garvish Patel, Vipul K. Dabhi, Harshad B. Prajapati	International Conference on Advances in Computer Engineering and Applications (ICACEA	Oral	2015
26.	Rainfall forecasting using neural network: A survey	Mohini Darji, Vipul K. Dabhi, Harshad B. Prajapati	International Conference on Advances in Computer Engineering and Applications (ICACEA	Oral	2015
27.	Classification of ECG signals using machine learning techniques: A survey	Shweta Jambukia, Vipul K. Dabhi, Harshad B. Prajapati	International Conference on Advances in Computer Engineering and Applications	Oral	2015

			(ICACEA		
28.	A survey on location based application development for Android platform	Bhagysri Patel, Vipul K. Dabhi, Utkarsh Tyagi, Pushpalata B. Shah	International Conference on Advances in Computer Engineering and Applications (ICACEA	Oral	2015
29.	Cutting stock problem: A solution based on novel pattern based chromosome representation using modified GA	Kashyap Parmar, Harshad B. Prajapati, Vipul K. Dabhi	International Conference on Circuit, Power and Computing Technologies (ICCPCT	Oral	2015
30.	Survey of multi objective evolutionary algorithms	Vimal Vachhani, Vipul K. Dabhi , Harshad B. Prajapati	International Conference on Circuit, Power and Computing Technologies (ICCPCT)	Oral	2015
31.	A survey on text categorization of indian and non-indian languages using supervised learning techniques	Khyati S. Kava , Nikita P. Desai	Sri Sunflower College Of Engineering and Technology, Lankapalli (Vijayawada)	Oral	2015
32.	A survey on Part-of-speech tagging of Indian languages	Dharmistha N. Mehta, Nikita P. Desai	Sri Sunflower College Of Engineering and Technology, Lankapalli (Vijayawada)-	Oral	2015
33.	A survey on semantic document clustering	Maitri P. Naik, Harshad B. Prajapati, Vipul K. Dabhi	IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT)	Oral	2015
34.	A survey on job scheduling algorithms in Big data processing	Jyoti Gautam, Harshad B. Prajapati, Vipul K. Dabhi	IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT)	Oral	2015

35.	A survey of opinion mining approaches	Shah bijal, Nikita Desai	International conference on recent trends in engineering science and management(ICR TESM-15)	Oral	2015
36.	An algorithm for hierarchical Chinese postman problem using minimum spanning tree approach based on kruskal's algorithm	Umang Sayata, Nikita P. Desai	Advance computing conference 2015	Oral	2015
37.	Demonstration of Multivariate Data Analysis for the QbD based systematic development of nanoemulsions containing <i>Boswellia serratta</i> with	Asha patel Tejal Soni Mukesh gohel	Word congress "QbD in pharma Development" at Chandigarh	Oral	2015
38.	<i>In-vitro</i> Screening of Benzotriazole and Pyrimidine Derivatives for Anti – Breast and Anti – Lung Cancer Activity	Parmar Ashish Vipul Patel	DBT workshop	Poster	2015
39.	Synergistic cytotoxic activity and DNA fragmentation study: An <i>in vitro</i> screening of curcumin and catechin derivatives	Shilpa Barjod Vipul Patel	DBT workshop	Poster	2015
40.	Formulation Development of Ethosomes for Enhanced Transdermal Delivery of Thiocolchicoside	Patel T B,Suhagia BN, Patel T R, Soni T G	Controlled Release Society – Indian Chapter 2015, Mumbai	Poster	2015
41.	"Development of Polymeric Composite film as a surgical dressing material for burn wound healing"	Mr. Nayan Patel	National Level Workshop on Molecular and Microbial Biotechnology: Tools and Techniques organized	Oral	2015
42.	A cross Layered approach to improve energy efficiency of underwater wireless sensor network (Awarded Best Paper)	Jekishan, Mrudang Mehta	IEEE, ICCIC DEC 2014	Oral	2014
43.	Automatic domain segmentation of WordNEt	Brijesh Bhatt, Pushpak Bhattacharyya	GWC	oral	2014

44.	Effect of Chain Length Compatibility and Nature of Head Group Interaction on the Stability of Mixed Micellar System: Tailored Self Assembled Nano-Aggregates for Technological Applications	Dr.M.K.Mishra Manu Vashishtha, Dinesh O. Shah	International Union Of Material Research Society (IUMRS), at Fukuoka University, Fukuoka, JAPAN,	Oral	2014
45.	Micellar Catalysis for green and selective synthesis in water.	Manu Vashishtha, Manish Mishra, D.O. Shah,	20 <sup>th</sup> International Symposium on Surfactants in Solution (SIS 2014), organized by University of Coimbra, Coimbra, Portugal	Oral	2014
46.	“Dynamic Analysis Of Reciprocating Machine Foundation By Is:2974& Aci 351.3r : Comparative Study”	Janhavi Kulkarni, C.A.KaPatel, Hasnain Murmurwala	International Conference On Research, Design And Development In Engineering, Management & Sciences	Oral	2014
47.	Distributed Resource Allocation for Cognitive Radio Networks: Sub-Carrier Power and Bandwidth Sizing	V. M. Thumar T. Nadkar, U. B. Desai & S. N. Merchant	IEEE Vehicular Technology Conference	Oral	2013-14
48.	Experimental Study of Remote Job Submission and Execution on LRM through Grid Computing Mechanisms	Prajapati Harshadkumar B., and Shah Vipul A.	Advanced Computing & Communication Technologies (ACCT), 2014 Fourth International Conference	Oral	2014
49.	Scheduling in Grid Computing Environment	Prajapati Harshadkumar B., and Shah Vipul A.	Advanced Computing & Communication Technologies (ACCT), 2014 Fourth International Conference	Oral	2014
50.	“Low cost microphone sensor based sound detection and analysis system using LabVIEW”	Gandhi S.V., Thakker M.T. , Dalal C.S	IEEE digital library	Oral	2014

51.	“Cost Effective Design of signal conditioner for vibration measurement”	Shah H.S., Patel, P.N, Shah S.P., Thakker M.T.	IEEE digital library	Oral	2014
52.	Scheduling in Grid Computing Environment	Harshad B. Prajapati, Vipul A. Shah	4th International Conference on Advanced Computing & Communication Technologies	Oral	2014
53.	Experimental Study of Remote Job Submission and Execution on LRM through Grid Computing Mechanisms	Harshad B. Prajapati, Vipul A. Shah	4th International Conference on Advanced Computing & Communication Technologies	Oral	2014
54.	Load Balancing Using Process Migration For Linux Based Distributed System	Ravindra Vyas, Hardik Maheta, Harshad B. Prajapati, Vipul K. Dabhi,	International Conference on Issues and Challenges in Intelligent Computing Techniques	Oral	2014
55.	An Improved Spea2 Multi Objective Algorithm With Non-Dominated Elitism And Generational Crossover	Hardik Maheta, Vipul K. Dabhi	International Conference on Issues and Challenges in Intelligent Computing Techniques	Oral	2014
56.	Scheduling Of Dependent Tasks Application Using Random Search Technique	Harshad Prajapati, Vipul A. Shah	4th IEEE International Advance Computing Conference	Oral	2014
57.	Embedding Custom Metric In Ganglia Monitoring System	Ravindra Vyas, Harshad B. Prajapati, Vipul K. Dabhi,	4th IEEE International Advance Computing Conference (IACC 2014)	Oral	2014
58.	Structural Feature Based Classification of Printed Gujarati Characters	Mukesh M. Goswami, Suman Mitra	5th International Conference, PReMI 2013, Kolkata, India.	Oral	2014
59.	Embedding Custom Metric In Ganglia Monitoring System	Ravindra Vyas, Harshad Prajapati, Vipul Dabhi	4th IEEE International Advance Computing Conference, Feb 21-22, Gurgaon	Oral	2014

60.	Implementation of WSN which can simultaneously monitor temperature conditions and control robot for positional accuracy.	Sharul Agrawal, Ravi N. Prakash	IEEE International conference on Green computing, communication and electrical engineering, ICGCCEE-2014	Oral	2014
61.	Mel Frequency Cepstral Coefficients (MFCC) Based Speaker Identification in Noisy Environment Using Wiener Filter	Paresh M. Chauhan, Nikita P. Desai	IEEE International Conference on Green Computing, Communication and Electrical Engineering (ICGCCEE'14) 2014	Oral	2014
62.	Content Based Categorization of E-Mail using Hidden Markov Model Approach	Shreyansh Saraiya, Nikita P. Desai	IEEE International Conference on Advances in Engineering and Technology-ICAET 2014	Oral	2014
63.	Classification for Multi-Relational Data Mining Using Bayesian Belief Network	Nilesh Bharwad, Mukesh Goswami	Proceedings of the Second International Conference on Advanced Computing, Networking and Informatics (ICACNI-2014)	Oral	2014
64.	Empirical Study of Thinning Algorithms on Printed Gujarati Characters and Handwritten Numerals	Sanket, Mukesh Goswami, Amit Thakkar	Emerging Research in Computing, Information, Communication and Applications (ERCICA-2014)	Oral	2014
65.	The performance analysis of a magnetic fluid based hydrodynamic long journal bearing.	N.S.Patel, D.P.Vakharia G.M.Deheri H.C.Patel	advances in tribology and engineering system	Oral	2014
66.	A Comparative Study of Alternatives for 50% Rule in Critical Chain Project Management	Prof. Jaydeep M. Ravalji Prof. Vivek A. Deshpande	International Symposium on Engineering and Technology, Trinity College,	Poster	2014

			Pune		
67.	Modeling of GD&T requirements of Crankshaft Flange using Design of Experiments	Jayalakshmi; Prof. S.P.Joshi Dr. P.M.George	5 <sup>th</sup> International and 26 <sup>th</sup> National AIMTDR-2014 (IIT Guwahati)	Oral	2014
68.	Development of plant extract loaded Nanoemulsion for the treatment of inflammatory disorder	Asha patel Tejal Soni Mukesh gohel	Drug Discovery India 2014” organized by Select-Bio at Mumbai	Poster	2014
69.	Glaucoma Therapy by Extended release of Timolol from PLGA Nanoparticle loaded Contact Lenses using 3D Digital Inkjet Printing Technology	Furqan A. Maulvi , Tejal G. Soni <sup>b</sup> , Dinesh O. Shah	Current Perspectives in Drug Discovery, Development and Therapy in RAPCOINC	Poster	2014
70.	MoSAC, a Novel QSAR Approach: Application to Model PPAR Gamma Agonist Binding	JagatUpadhyay, Dr. Anuradha K. Gajjar	RAPCOPINC 2014	Poster	, 2014
71.	A Study On Comparative Docking Assessment Of Some Kinases Involved In Diabetes With Its Allosteric site	Navneet Chauhan, JagatUpadhyay, Dr. Anuradha K. Gajjar	RAPCOPINC 2014	Poster	, 2014
72.	Design of L-Amino Acid Derivatives as Potential DPP-IV Inhibitors	JagatUpadhyay, Dr. Anuradha K Gajjar	ISRAM-2014	Poster	2014
73.	Ayurvedic Management of Cirrhosis of Liver Complicated with Acsites: A Case Report	Unnati V. Gohil, Patel MV, Gupta SN, Patel KB	International conference “Current perspectives in drug discovery, development and therapy” at Ramanbhai Patel College of Pharmacy, Charotar University of Science and Technology, Changa	Poster	2014
74.	Development of a Reservoir-type Transdermal Delivery System for Propranolol Hydrochloride	Mehul N Patel, PD Bharadia, MM Patel, BN Suhagia	APP 3rd Annual National Convention January 18, 2014 DDU, Nadiad	Oral	2014

75.	Preparation, Development and Characterization of Phospholipid Complex with Spray Dried extract of Phyla Nodiflora	Patel A., Pagi B., Mehul N Patel, Tejal Soni, BN Suhagia	APP 3rd Annual National Convention January 18, 2014  DDU, Nadiad	Poster	2014
76.	Formulation of Fenofibrate liquisolid tablets using central composite design	Patel Tejas, Patel LD, Suhagia BN, Soni T, Patel Tushar	APP 3rd Annual Convention, Faculty of Pharmacy, DDU, Nadiad (GUJ)	Poster	2014
77.	Phytochemical analysis and Isolation of Gallic acid from fresh fruits of Terminalia arjuna.	Macwan Carol P. *, Patel Anar J., Patel Mayuree A., Suhagia B. N.	Herbal Drug research: Opportunities and Challenges, Perd, Ahmedabad	Poster	2014
78.	Proniosomal Gel: A Novel Tool for Localized Skin Disease	P. D. Patel, Mehul N Patel, TejasB Patel, TejalSoni, BN Suhagia	Pharmavision 2013 September 28-29, 2013 Shri Sarvajanic Pharmacy College, Mehsana.	Poster	2013
79.	Herbal Microemulsion for Topical Use - A Review	Nayan Patel, Mehul N Patel, Tejas B Patel, TejalSoni, BN Suhagia	Two Days National Seminar on "Design of Experiment in Pharmaceutical Drug Product Development: Crucial Role in Formulation Optimization" August 22-23, 2013 Shankersinh VaghelaBapu Institute of Pharmacy, Gandhinagar.	Poster	2013
80.	Proniosomal Gel for Localized Skin Disease	Parth Patel, Mehul N Patel, Tejas B Patel, TejalSoni, BN Suhagia	Two Days National Seminar on "Design of Experiment in Pharmaceutical Drug Product	Poster	2013



			Development: Crucial Role in Formulation Optimization" August 22-23, 2013 Shankersinh Vagh elaBapu Institute of Pharmacy, Gandhinagar		
81.	Skin Penetration Enhancement of Metoprolol Succinate using Essential oils	Ashish Kadeval, Mehul N Patel, TejalSoni, BN Suhagia	AICTE Sponsored National Conference Pharmaceutical Research : Quality ... Approaches April 06-07, 2013 Maliba Pharmacy College, Bardoli	Poster	2013
82.	Microneedles: Promising Technology for Transdermal Drug Delivery	Narendra Prajapati, Tejas B. Patel, Mehul N Patel, TejalSoni, B N Suhagia	GUJCOST Sponsored Seminar on Nanocarriers: Novel Tool as Drug Delivery System February 9, 2013 Faculty of Pharmacy, Dharmsinh Desai University, Nadiad.	Poster	2013
83.	Influence of Nanotechnology on Herbal Drugs: A Review	PagiBhaumik, Patel Mehul N, Patel Anar J, SoniTejal G, Suhagia BN	GUJCOST Sponsored Seminar on Nanocarriers: Novel Tool as Drug Delivery System February 9, 2013 Faculty of Pharmacy, Dharmsinh Desai University, Nadiad.	Poster	2013

84.	Nanoparticles: Novel Approach for Drug Delivery	Thakkar Sanjay D, Mehul N Patel, VipulPrajapati	GUJCOST Sponsored Seminar on Nanocarriers: Novel Tool as Drug Delivery System February 9, 2013 Faculty of Pharmacy, Dharmsinh Desai University, Nadiad.	Poster	2013
85.	Transdermal Penetration Enhancement: Chemical Approaches	ShabnamGadiwala, Mehul N Patel, B N Suhagia	GUJCOST Sponsored Seminar on Nanocarriers: Novel Tool as Drug Delivery System February 9, 2013 Faculty of Pharmacy, Dharmsinh Desai University, Nadiad.	Poster	2013
86.	Development of surgical dressing coated with chitosan-silver nanoparticles composite for burn wound healing	Tejas B Patel, Tejal G Soni, B. N. Suhagia, Krutagna H Patel	APP 2nd Annual Convention, SSDJ College of Pharmacy, Chandwad, Nasik, M.S	Oral	2013
87.	Design and Development of Carvedilol matrix tablet using cyclodextrin as Solubilizing agent	Tejas B Patel, Tushar R Patel, Mehul N Patel, Tejal G Soni, B. N. Suhagia	APTICON-2013, Rajahmundry, A. P	Poster	2013
88.	Preparation and Characterization of Lornoxicam Beta-cyclodextrin Inclusion Complexes for Dissolution Enhancement	Gopi Patel, Mehul N Patel, T B Patel, T G Soni, B N Suhagia	GUJCOST Sponsored Seminar on Nanocarriers: Novel Tool as Drug Delivery System February 9, 2013 Faculty of Pharmacy, Dharmsinh Desai University, Nadiad.	Poster	2013

89.	Study on factors influencing cross and self product selectivity in aldol condensation over propylsulfonic acid functionalized silica	Kamlesh Tayade, Manish Mishra	ICON-NANO 2013, International conference on Surface Science and Nanotechnology, organized by Shah-Schulman Centre for Surface Science and Nanotechnology, and Faculty of Pharmacy, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
90.	Synthesis of imines by oxidative coupling of amines on Al-MCM-41 catalyst	Kamlesh Tayade, Manish Mishra	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
91.	Novel route for selective synthesis of jasminaldehyde in aqueous micellar system: an environmentally benign, cost effective reusable approach	Manu Vashishtha, Manish Mishra, D.O. Shah	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
92.	Cross aldol condensation reaction in mixed micellar system: Effect of co-surfactant chain length and nature of head group interaction on the stability of micelle and micellar catalysis	Manu Vashishtha, Manish Mishra, D.O. Shah	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
93.	Titanium dioxide coating for hydrophobic and medical application: coatings for self cleaning glass window	Sajid Mogal, Manish Mishra, Vimal Gandhi	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
94.	Copper doped titanium dioxide: anomalies in characterization and PCD of phthalic acid	Sajid Mogal, Manish Mishra	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Oral	2013

95.	Copper intercalated Mg-Al LDH ; multifunctional materials for diverse applications	Manish Dixit, Manish Mishra, P.A. Joshi, D.O. Shah	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
96.	Tuning the wettability profile of organically modified clays by choice of cationic surfactants with variety of substituents	Kinjal J. Shah, Manish Kumar Mishra, Atindra D. Shukla, Toyoko Imae, Dinesh O. Shah	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Oral	2013
97.	Study on Antimicrobial Property of Silica Supported Silver for Water Purification	Renish Vadariya, Manish Mishra, Premal Shukla, Dinesh O. Shah	ICON-NANO 2013, D.D. University, Nadiad, Gujarat, 10-12 December 2013	Poster	2013
98.	Highly efficient and clean C-alkylation of carbonyls and N-alkylation of primary amine using hydrotalcite supported copper catalysts	Manish Dixit, Manish Mishra, P.A. Joshi and Dinesh O. Shah	International Conference on Emerging trends in Chemical Sciences, organized by Central University of Gujarat, Gandhinagar, 14-15 March 2013	Oral	2013
99.	<i>n</i> -alkanes as a greener solvent for selective organic transformations	Kamlesh Tayade and Manish Mishra	International Conference on Emerging trends in Chemical Sciences, organized by Central University of Gujarat, Gandhinagar, 14-15 March 2013	Oral	2013
100.	Green chemistry and Nanotechnology: Enhanced selectivity of formation of 2,6-bis (benzylidene) cyclohexanone (ABA product) vs. 2-(benzylidene) cyclohexanone (AB product) by micellar catalysis in aqueous solutions	Manu Vashishtha, Manish Mishra, Sachin Undre, Man Singh and D. O. Shah	International Conference on Emerging trends in Chemical Sciences, organized by Central University of Gujarat, Gandhinagar, 14-15 March 2013	Oral	2013

101.	Survey of Various Low Power Domino Logic Techniques	Mr. Sumit K. Patel & Mitesh Limachia	ACCT-2012	Oral	2013
102.	8 Channel Vibration Monitoring and Analyzing System Using LabVIEW	Heta S. Shah, Puja Patel, Shashank P. Shah, Manish T. Thakker	NUiCONE-2013	Oral	2013
103.	Application of Artificial Neural Network for weld bead Measurement	Devangi Desai <sup>1</sup> Bindu Pillai <sup>2</sup>	Advanced Engineering Optimization Through Intelligent Techniques	Oral	2013
104.	Demand Management of Perishable Products using Supply Chain Management Concepts	Dr. Hemant R. Thakkar  Prof. Jaydeep M. Ravalji	Industrial Engineering,	Oral	2013
105.	Design and Model Preparation of ROV to Define The Principle of Stability of a Submerged Body	Prof. Jaydeep M. Ravalji	Emerging Trends in Mechanical Engineering,	Oral	2013
106.	Phytochemical screening and haematinic activity of fruits of <i>Opuntiaelator</i> mill	Sanjay Chauhan, Sheth N. R.	12 <sup>th</sup> International Congress of Ethnopharmacology	Oral	2012
107.	Flow-Injection spectrophotometer and LC Determination of Doxycycline, Oxytetracycline and Chlortetracycline in Biological Fluids and Pharmaceutical Preparation (Co-author)	Thakor Rishita Vipul Patel	63 <sup>rd</sup> IPC-Pharma Vision-2020: India-The Pharma Powerhouse Bangalore	Poster	2012
108.	Formulation Development of Ketoprofen Inclusion complex Using factorial design	Patel T B, Patel L D, Suhagia B N, Soni T G, Patel T R	64th Indian pharmaceutical Congress, Chennai	Poster	2012
109.	Phytopharmacognostical investigation on the leaves of <i>ziziphusmauritiana</i> .	Macwan Carol P, Palejkar Jignesh H., Patel Mayuree A., Patel Anar J.	63 <sup>rd</sup> IPC, SRM University	Poster	2012
110.	A Review on Herbal Drugs Avoided During Pregnancy	Vaghela Komal, Patel Anar J, Patel Mehul N.	ICMR Sponsored one day national Seminar on	Poster	2012

			Bioavailability enhancement technique & regulatory issues. October 27, 2012 S. K. Patel College of Pharm. Edu. & Res., Ganpat Uni., Kherva.		
111.	A Pore Based Partial Fingerprint Verification Systems using Probabilistic Local Binary Pattern	Sheetal S Shah	ICACEEE	Oral	2012
112.	Introduction to Gujarati Wordnet	Brijesh Bhatt, C. K. Bhensdadia, Pushpak Bhattacharyya	GWC 2012	Oral	2012
113.	Performance Evaluation of Multipath Ring Routing Protocol for Wireless Sensor Network	Anand Pandya, Mrudang Mehta	IACEEE 2012	Oral	2012
114.	A novel energy efficient routing approach using multipath ring routing and clustering for WSN	Anand Pandya, Mrudang Mehta	CUBE, 2012	Oral	2012
115.	Domain Specific Ontology Extraction for Indian languages	Brijesh Bhatt and Pushpak Bhattacharyya	COLING 2012	oral	2012
116.	Study on the catalytic properties of silica supported copper catalysts	Manish Dixit, Manish Mishra, P.A. Joshi and D.O. Shah	3 <sup>rd</sup> Nirma University International Conference on Engineering (NUiCONE 2012), organized by Nirma University, Gujarat, India, 6-8 December 2012	Oral	2012
117.	Aqueous micellar solution: A green solvent media for catalytic reactions minimizing	Manu Vashishtha, Manish Mishra,	2 <sup>nd</sup> International Indo-German Symposium on	Poster	2012

	the consumption of homogeneous catalysts	D.O. Shah	Green Chemistry and Catalysis for Sustainable Development, organized by Institute of Chemical Engineering (ICT), Mumbai, 29-31 October, 2012		
118.	Is kinetics of micelles related to miceller catalysis?	Manu Vashishtha, Manish Mishra, D.O. Shah	19th International Symposium on Surfactants in Solution (SIS 2012), organized by University of Alberta, Edmonton, Alberta, Canada, 24-28 June 2012	Oral	2012
119.	Formulation Development of Ketoprofen Inclusion complex Using factorial design	Patel T B, Patel L D, Suhagia B N, Soni T G, Patel T R	64th Indian pharmaceutical Congress, Chennai	Poster	2012
120.	Phytochemical screening and haematinic activity of fruits of <i>Opuntiaelator</i> mill	Sanjay Chauhan & Sheth N. R.	12 <sup>th</sup> International Congress of Ethnopharmacology	Oral	2012
121.	Performance Analysis of Adaptive Scan Compression Methodology & Calculation of Compression Ratio,	N.J.Kothari	International Conference on Advances in Computing & Communications	Oral	2012
122.	Low Complexity CFO Estimation for OFDMA Uplink System	H.K.Shah	International Conference on Advances in Computer and Communication Technology	Oral	2012
123.	Resource Allocation Algorithms in LTE system	H.K.Shah	International Conference on Advances in Computer and Communication Technology	Oral	2012
124.	A Novel Architecture for Current Steering Digital to Analog Converters	P.G.Darji	International Conference on Advances in Computer	Oral	2012

			Science & Electronics Engineering		
125.	Performance Analysis of Adaptive Scan Compression Methodology & Calculation of Compression Ratio	M.J.Limachia	International Conference on Advances in Computing & Communications	Oral	2012
126.	Survey of Various Low Power Domino Logic Techniques	M.J.Limachia	International Conference on Advances in Computer And Communication Technology -	Oral	2012
127.	Comparison of Analytical & Finite Difference method for solving Boundary Value Electrostatic Problems	A.B.Pandya	International Conference ICSSA	Oral	2012
128.	Safety Enhancement of Industrial Process Monitoring and Control Using Ultra Low Power “Multidrop Wired” / “Wireless” Digital Communication System	Prof. Shashank P. Shah & Prof. Manish T. Thakker	International Conference on Safety 2012, IIT Gandhinagar	Oral	2012
129.	Fuzzy Logic Based Decision Support System Framework for Irrigation Scheduling	Himanshu Patel, Jignesh Patel, Chetan Bhatt	2012 Nirma University International Conference on Engineering, NUiCONE-2012	Oral	2012
130.	Semantic Sub-tree Crossover Operator for Postfix Genetic Programming	Vipul K. Dabhi, Sanjay Chaudhary	Seventh International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012)	Oral	2012
131.	Similar looking Gujarati printed character recognition using Locality Preserving Projection and artificial neural networks	Mandar Chaudhary, Mukesh Goswami	Third International Conference on Emerging Applications of Information Technology (EAIT), 2012	Oral	2012
132.	A Case Study on Implementation of Lean Techniques in Low Volume Car Manufacturing Industry	D.I.Upadhyay, A. B. Pandey	AIMTDR	Oral	2012



133.	A case study on assembly line balancing by reducing mudasby yamazumi chart	D.I.Upadhyay, A. B. Pandey, Dr. M. N. Qureshi	ICIKR-ETS-2012	Oral	2012
134.	Effect of boundary conditions and stiffeners on the natural frequencies of rectangular plate	Dipam S. Patel, S.S. Pathan, I.H. Bhoraniya	Competitiveness & innovations in Engineering, Management & information technology, MAIMT, Jagadhri.	Oral	2012
135.	Devalopment and Application of Artificial Neural Network model for Prediction of Surface Roughness	Bindu Pillai & Devangi J. Desai	Advanced Research in Mechanical Engineering (ICARME-2012)	Oral	2012
136.	Design and Development of Monolithic osmotic drug delivery system for anti-hypertensive drug	Patel Tejas, Patel Tushar, Patel L. D	Indo-American Pharmaceutical Regulatory Symposium, Institute of Pharmacy, Nirma University	Poster	2011
137.	Antimicrobial Activity Of Peel Extracts Of <i>OpuntiaElatior</i> Mill. Fruit	Sanjay Chauhan &Sheth N. R.	15 <sup>th</sup> Annual Conference & First International Convention of Society of Pharmacognosy	Poster	2011
138.	mPayment: A Mobile Based Fee Payment System for Educational Institute	Puneet Ghodasara, Heet Ghadia, Mrudang Mehta	International Conference on Information, Signal and Communication at ADIT, VVNagar	Poster	2011
139.	E-Learning Application for Video Content Delivery	Mohit Shah, Ishan Shah, Mrudang Mehta	International Conference on Information, Signal and Communication at ADIT, VVNagar	Poster	2011
140.	IndoWordnet and its linking with ontology	Brijesh Bhatt, Pushpak Bhattacharyya	ICON 2011	Oral	2011

141.	Application of silver doped titania for photocatalytic degradation of phthalic acid	V.G. Gandhi, M.K. Mishra, S. Kumar, D.O. Shah, P.A. Joshi	International Symposium on Advanced Ceramics and Composites and Nanostructured Materials (ISACCNM-2011) organized by Department of Material Science, V.V. Nagar, 17-18 February, 2011	Oral	2011
142.	Prediction of Soil Salinity in Kachchh Area of Western India Under Sardar Sarovar Project Canal Irrigation	Prof. S.S. Khandewal	International Conference on Management of Soil and Groundwater Salinization in Arid Regions at the Sultan Qaboos University, Muscat	Oral	2011
143.	Power Allocation in Cognitive Radio: Single and Multiple Secondary Users	G. P. S. Tej, T. Nadkar, V. M. Thumar, U. B. Desai & S. N. Merchant	IEEE Wireless Communications and Networking Conference	Oral	2011
144.	A Crosslayer Framework for Symbiotic Relaying in Cognitive Radio Networks	T. Nadkar, V. M. Thumar, G. Shenoy, A. Mehta, U. B. Desai & S. N. Merchant	IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks	Oral	2011
145.	Cognitive Relaying with Time Incentive: Protocol Design for Multiple Primary Users	T. Nadkar, V. M. Thumar, G. Shenoy, U. B. Desai & S. N. Merchant	IEEE Symposium on Personal, Indoor and Mobile Radio Communications	Oral	2011
146.	Cognitive Relaying with Frequency Incentive	T. Nadkar, V. M. Thumar, G. Shenoy, U. B. Desai & S. N. Merchant	IEEE Global Telecommunications Conference	Oral	2011
147.	A Decoupled Cross-layer design for Symbiotic Cognitive Relaying with Time Incentive	V. M. Thumar, T. Nadkar, U. B. Desai & S. N. Merchant	Wireless and Optical Communications Conference	Oral	2011

148.	Utility-based Decision-making for Symbiotic Cooperative Relaying in Cognitive Radio Networks	V. M. Thumar T. Nadkar, U. B. Desai & S. N. Merchant	European Wireless Conference	Oral	2010-11
149.	Cognitive Relaying with Time Incentive: Multiple Primary Users	V. M. Thumar T. Nadkar, U. B. Desai & S. N. Merchant	IEEE Vehicular Technology Conference	Oral	2011
150.	TCP RTT Estimation & Its Impact on Throughput Over Hybrid Networks	P.D.Dalal	International Conference, A. D. Institute of Technology, V.V.Nagar.	Oral	2011
151.	Performance of CR-QOSTBC for Multiple Receive Antennas in MIMO Systems	N.J.Kothari,H. K.Shah	International Conference on Computational Intelligence & Communication Networks.	Oral	2011
152.	Feature Extraction and Character Classification of OCR (English) For Non Ideal Printing Cases	S.P.Thakkar	ICSSA11.	Oral	2011
153.	Liquid Level and Cap Position Detection Algorithms for Bottle Inspection System, ICSSA11.	S.P.Thakkar & P.V.Patel	ICSSA11.	Oral	2011
154.	"Intelligent Energy Management System"	Mayur D. Karathia, Jignesh G. Bhatt, and Himanshu G. Bhavsar,	International Conference on Electronics, Information and Communication Systems Engineering (ICEICE-2010), M.B.M. Engineering College, Jodhpur, India, March 28-30, 2011, Thrust Area: Industrial Automation/Process Control System	Oral	2011
155.	"Design and Implementation of RS-485/MODBUS based Automatic Batch Weighing System using LabVIEW"	Sunil D. Patel, Jignesh G. Bhatt, and Himanshu G. Bhavsar	International Conference on Innovative Science and Engineering Technology	Oral	2011

			(ICISSET-2011), V.V.P. Engineering College, Rajkot, India, April 8-9, 2011		
156.	“Design and Implementation of Field Programmable Gate Array based Programmable Logic Controller”	Patel D. M., Trivedi S. M., Bhatt, J. G.,	2 <sup>nd</sup> International Conference on Signals, Systems, and Automation (ICSSA-2011), G.H. Patel College of Engineering & Technology (GCET), Vallabh Vidyanagar, India,	Oral	2011
157.	Empirical modeling using symbolic regression via postfix Genetic Programming	Vipul K. Dabhi, S.K. Vij	International Conference on Image Information Processing (ICIIP), Waknagh at, Jan-2011	Oral	2011
158.	Analytical study of parallel and distributed image processing	Harshad B.Prajapati, S.K. Vij	International Conference on Image Information Processing (ICIIP), Waknagh at, Jan-2011	Oral	2011
159.	Classification of printed Gujarati characters using som based k-Nearest Neighbor Classifier	Mukesh M. Goswami, Harshad B. Prajapati, Vipul K. Dabhi,	International Conference on Image Information Processing (ICIIP), Waknagh at, Jan-2011	Oral	2011
160.	A Study on Various Techniques of Regeneration of Titanium Dioxide Spent Catalyst for Photocatalytic Degradation	V.G. Gandhi, M.K. Mishra, M.S. Rao, D.O. Shah, P.A. Joshi	4 <sup>th</sup> International Congress of Chemistry and Environment Conference (Ubonratchathani, Thailand), 21-23 January, 2010	Oral	2010
161.	Decision Making By University For Admissions:Using Simple	Nikita P. Desai	International conference on computer	Oral	2010

	Fuzzy Multi Attribute Decision Making (Madm) Methods		engineering and technology (iccet10)		
162.	“Modelling of Performance of Proton Exchange Membrane Fuel Cell using Fuzzy Inference System”	P.V.Dixit Dr.V.A.Shah	ISCAR-2010	Oral	2010

**List of National Conferences attended by faculty members**

Sr. No	Title of Paper	Name of Author/s	Conference Details	Oral presentation /Poster	Year
1	Impact of Multiple Sink nodes over single sink node on wireless sensor network using multipath rings routing protocol	Anand Pandya, Mrudang Mehta	NCEVT in 21st Century	Oral	2012
2	Comparison of Enhanced overlay scheme and Multipath rings routing for wireless sensor network	Anand Pandya, Mrudang Mehta	NCEVT in 21st Century	Oral	2012
3	State Estimation of a Reactive Distillation System Using Multi-rate DAE-EKF	Dr.J.L.Purohit	first Indian Control Conference, icc-2015, held at IIT-Madras during 5 <sup>th</sup> Jan – 7 <sup>th</sup> Jan, 2015	Oral	2015
4	Swelling nature of clay minerals: implications during production from petroleum reservoirs	Uttam K. Bhui, Raveen Goyal, Madhukar Kumar, Arpita Chaturvedi, Gurveer Singh, Vaibhav Singh, Manish Mishra, Saheli Sanyal,	Petroleum in India: Present and Future, at Department of Geology, University of Calcutta, Kolkata, 20 <sup>th</sup> and 21 <sup>st</sup> March 2015	Oral	2015
5	Influence of silver as dopant on structural, textural and photocatalytic properties of titanium dioxide	Sajid I. Mogal, Manish Mishra	22 <sup>nd</sup> National Symposium on Catalysis (CATSYMP 22), at Central Salt and Marine Chemicals Research Institute, Bhavnagar, 07 <sup>th</sup> to 09 <sup>th</sup> January 2015	Oral	2015
6	Al grafted MCM-41 as efficient heterogeneous catalyst for direct N-	Kamlesh Tayade, Manish Mishra	22 <sup>nd</sup> National Symposium on Catalysis (CATSYMP	Poster	2015

	alkylation of amines using alcohols		22), at Central Salt and Marine Chemicals Research Institute, Bhavnagar, 07 <sup>th</sup> to 09 <sup>th</sup> January 2015		
7	Application of reusable aqueous NaOH-mixed micellar catalytic system for green and selective cross aldol condensation reaction	Manu Vashishtha, Manish Mishra, D.O. Shah	22 <sup>nd</sup> National Symposium on Catalysis (CATSYMP 22), at Central Salt and Marine Chemicals Research Institute, Bhavnagar, 07 <sup>th</sup> to 09 <sup>th</sup> January 2015	Poster	2015
8	Layered Double Hydroxides for diverse pharmaceutical applications	Manish Dixit, Manish Mishra, P.A. Joshi and D.O. Shah	National Seminar on Nanocarriers: Novel Tool as Drug Delivery System	Oral	2013
9	Green solvent Free N-heterocyclization of Primary Amines to N-substituted Azacyclo-pentanes using Hydrotalcite as Solid Base Catalyst	Manish Dixit, Manish Mishra, P.A. Joshi and D.O. Shah	National seminar on Computer Assisted Drug Designing & Green Chemistry	Oral	2013
10	Copper intercalated Mg-Al Layered double hydroxide and derived mixed oxides: Multifunctional Materials for Diverse Applications	Manish Dixit, Manish Mishra, P.A. Joshi, D.O. Shah	7 <sup>th</sup> National conference on Thermophysical properties organized by Department of Physics, Christ Church College, C.S.J.M. University, Kanpur, 17-19 October 2013	Oral	2013
11	Effect of chain length compatibility and nature of co-surfactant head group interaction on the stability of mixed micellar system: Nano aggregates for technological applications	Manu Vashishtha, Manish Mishra, D.O. Shah	7 <sup>th</sup> National conference on Thermophysical properties organized by Department of Physics, Christ Church College, C.S.J.M. University, Kanpur, 17-19 October 2013	Oral	2013
12	Towards Green Chemical Synthesis; Multifunctional Heterogeneous Catalyst for Sustainable Development	Manish Dixit, Manish Mishra, P.A. Joshi and D.O. Shah	National Research Seminar on Environment Conservation & Management	Oral	2012

13	Liquid Phase Adsorption of Aromatics on Faujasite Zeolite	Jyoti Verma, Vijayalakshmi Puranik, Shatish Shewale, Siddharth Modi	National Seminar on Catalysis for Sustainable Development, January 27-28, 2012	Poster	2012
14	A novel approach of integration of Artificial Neural Network and UV-Vis Spectrophotometry for simultaneous and rapid determination of organic compound concentration in binary mixture	Pritesh Patel, V.G. Gandhi, R.J. Tayade	National Seminar on Catalysis For Sustainable Development - Organised by "Catalyst Society of India- Baroda Chapter" in association with "IChE, Baroda Regional Center" and "Department of Chemistry, The M. S, University", 27-28 <sup>th</sup> January 2012	Poster	2012
15	Selection of waste water equalization system for multi product batch production facility	Vaidehi Bhatt, Meka Srinivasarao, Anand Dhanwani	NIT, Nagpur 28-3 October, 2010	Oral	2010
16	Direct Displacement-Based Design – A Prologue Survey	Dohadwala A.T., Sheth R. K., Patel I. N.	National Conference RACSE-'14	Oral	2014
17	Design Aids for L-Shaped RCC Column,	Sheth R. K., Sheth K. N.	Structural Engineering Convention	Oral	2014
18	Design of RC Moment Resisting Frames by Direct Displacement Design as per IS Code Guidelines	Sheth R. K., Soni D. P.	Structural Engineering Convention 2014	Oral	2014
19	Seed Ball Campaign: A new technique against Global Warming”	S.P. Parmar	Science Research Convention, Science and Technology Council, IITK.	Oral	2014
20	“Groundwater issues in Limbasi command area of Mahi Right Bank Canal (MRBC), Gujarat”	S.S. Khandelwal	BITS-Pilani Hyderabad Campus, Proceeding of National Conference on Sustainable Water Resources Planning and Management-2013	Oral	2013
21	“Hydrological Perspectives in the Limbasi branch of Mahi Right Bank Canal (MRBC) Project, Gujarat,	S.S. Khandelwal	N.M.A.M. Institute of Technology, Nitte, Karnataka, India, Proceedings of	Oral	2013

	India”		International Conference on Emerging Trends in Engineering, ICETE-2013		
22	Crop Evapotranspiration : A Comparative Study”,	S.S.Khanderwal	National Conference on Recent Advances in Civil and Structural Engineering,(RACSE ‘14),	Oral	2013
23	S.P.Parmar,“ Application of RS & GIS in solid waste management in Urban Area”, a paper presented in National Conference on “ New Horizons for sustainable tomorrow (NHST-2011)”	Prof.SPP	Sarvajanik Collage of Engineering & Technology, Surat	Oral	2011
24	S.P.Parmar,“ RS & GIS in Solid Waste management in Urban Area: A case study Vijay colony ward Dehradun”, presented at National Conference on “ Recent trends in Engineering & Technology”	Prof.SPP	BVM Engineering Collage ,V.V.Nagar	Oral	2011
25	“Groundwater issues in Limbasi command area of Mahi Right Bank Canal (MRBC), Gujarat”	Prof. SSK	BITS-Pilani Hyderabad Campus, Proceeding of National Conference on Sustainable Water Resources Planning and Management-2013	Oral	2013
26	Serial Peripheral Interface: An Analytical Approach, at Projections,	Y.K.Meghrajani	National Level Technical Symposium, at Parul Institute of Engineering & Technology, Vadodara, February, 2011.	Oral	2011
27	Position Control of an AC Servo Motor for Cut to Length Machine using Microcontroller 89c52 ,	Y.K.Meghrajani	National Conference on Knowledge Intelligence and Telematics, at U. V. Patel College of Engineering, Ganpat University, Mehsana, March, 2011.	Oral	2012



28	Serial Peripheral Interface (SPI): An Analytical Approach	Y.K.Meghrajani	Projections: A National Level Technical Symposium	Oral	2012
29	Performance Evaluation Of ML Based CFO Estimation Technique for OFDMA Uplink	H.K.Shah	National Conference on Innovations in Micro-electronics, Signal Processing, and Communication Techniques, V-IMPACT-2012, Organized by Department of Electronics and Communication Engineering, VIT Campus, Jaipur, Rajasthan.	Oral	2012
30	Scheduling Algorithms in LTE System	H.K.Shah	National Conference on Innovations in Micro-electronics, Signal Processing, and Communication Techniques, V-IMPACT2012, Organized by Department of Electronics and Communication Engineering, VIT Campus, Jaipur, Rajasthan.	Oral	2012
31	Adaptation Modulation & Coding MIMO Techniques in WLAN 802.11n	H.K.Shah & H.N.Shah	National Conference on Emerging Vista Of Technology in 21st Century, Gujarat Technical University	Oral	2012
32	Throughput Enhancement over heterogeneous networks by optimizing TCP Congestion control Algorithms ,	P.D.Dalal	National Conference on Advance Communication, Siddhartha Engineering College, Vijayawada, 2008.	Oral	
33	Impact of Link Layer Loss Recovery on TCP Performance over Heterogeneous Network,	P.D.Dalal	National Conference on Innovation in Micro-electronics, Signal Processing and Communication Technologies ,	Oral	2012

			V-IMPACT 2012, Organized by Vivekananda Institute of Technology, Jaipur.		
34	Performance Comparison & Related Issues of TCP Loss Recovery in Presence of End-to-End LDA,	P.D.Dalal	National Conference on Innovation in Micro-electronics, Yes Signal Processing and Communication Technologies , V- IMPACT 2012, Organized by Vivekananda Institute of Technology, Jaipur.	Oral	2012
35	Classification of Two wheeler models using Artificial Neural Networks,	P.D.Mehta	National Conference on Innovations in Microelectronics , Signal Processing and Communication Technologies, V- IMPACT 2012, 18-19 February 2012, Organized by Department of Electronics and Communication Engineering, VIT Campus, Jaipur, Rajasthan.	Oral	2012
36	Subcarrier and power allocation with proportional fairness algorithm for LTE system	H.K.Shah	V-impact national conferene, MNIT, Jaipur, RJ	Oral	2013
37	Impact of false RTT estimation on TCP performance over wireless links.	P.D.Dalal	V-impact national conferene, MNIT, Jaipur, RJ	Oral	2013
38	Low Cost Wired/Wireless Vibration Monitoring System for Process Industries	Prof. Manish T. Thakker & Prof. Shashank P. Shah	Texas Instruments Educator's Conference (TIEC 2014)	Oral	2014
39	A Hybrid Encryption algorithm for securing end points	Hiren Patel, Nikita P. Desai	National Conference on Computer Science & Security, COCSS 2013	Oral	2013
40	Overview Of Classification Techniques For Sentiment	Digvijay Mahida, Nikita	National Conference on Computer Science	Oral	2013

	Classification In Microblogs	P. Desai	& Security, COCSS 2013		
41	An application of Lean Six Sigma: A review	S. J Raval, Shashank J. Thanki	Recent research in engineering and technology	Oral	2015
42	Finite element analysis of pressure vessel of torospherical and ellipsoidal end connections	Prof. A.P. Bhavsar Prof. Kamlesh Parmar	5 <sup>th</sup> national conference on emerging vitas of technology in 21 <sup>st</sup> Century (PIET, Waghodia)	Oral	2014
43	Analyze effect of operating parameters of a CNC cylindrical grinding machine on GD&T requirements of Crankshaft Spigot (p.135-141)	Jayalakshmi; Dr. P.M.George	ICME-2014 (Conference proceedings published by Elsevier Publications)	Oral	2014
44	CFD simulation of standing wave type thermoacoustic prime-mover	ChiragFadadu, Prof. H. B.Naik, Prof. K.P. Desai	National Symposium on Cryogenic (NSC-24)	Poster	2013
45	A case study on the battery manufacturing company to implement the lean manufacturing	D.I.Upadhyay, Dr. M. N. Qureshi	RAM- 2012	Oral	2012
46	Effect of Machining Parameters on geometric form and orientation Control A review	N.A.Vora, S.P.Joshi Dr.P.M.George	National Conference Recent Trends in Engineering and Technology	Oral	2011
47	Nonlinear vibration analysis of cylindrical roller bearing with localized defect	Amit.S. Patel, U.A.Patel	National tribology conference, IIT, Roorkee, NTC 201133	Oral	2011

#### State level/University level

Sr. No.	Title of Paper	Name of Author/s	Conference Details	Oral presentation/ Poster	Year
1	Steady state and Dynamic behavior of Reactive Distillation Column with Double Reactive Sections	Hitesh V. Dholariya Dr.J.L.Purohit	Collision, Felicific-2015	poster	2015
2	Preparation and surface modification of polyvinylidene fluoride(PVDF) and Polyacrylonitrile(PAN) blend ultrafiltration membrane	Baraiya Bharat, Dr.V.G.Gandhi Dr.Avinash Deshmukh, AVR Reddy	Collision, Felicific-2015	poster	2015

3	To enhance the performance of thin composite reverse osmosis membrane by applying chitosan treatment on the top active skin polyamide barrier layer	Pranav Rana, Dr.V.G.Gandhi, Dr.Avinash Deshmukh Hiren Raval	Collision, Felicific-2015	poster	2015
4	IDENTIFICATION AND APPLICATION OF SOME NATURAL PESTICIDES FORMULATIONS	SIDHIWALA BANTI V, Dipali Shah, Dr.M.S.Rao	Collision, Felicific-2015	poster	2015
5	Nanotechnology for clean drinking water	Vijendra Chauhan, M.P.Shah Dr.Premal Shukla	Collision, Felicific-2015	poster	2015
6	Rheological flow, and surface properties of oil-surfactant polymer mixture for EOR	Suraj Patel, N.J.Bhavsar	Collision, Felicific-2015	poster	2015
7	Study of Individual and Synergistic Effects of Process Parameters Affecting Adsorption of RR-195 on Activated Charcoal using RSM	Jignesh Shah, S.C.Modi	Collision, Felicific-2015	poster	2015
8	Selective neutralization of stronger acids present in acetic acid aqueous solution	Praneta Patel, Manish Kumar Mishra,	Felicific-2015, at Dharmsinh Desai University, Nadiad, 09 <sup>th</sup> to 13 <sup>th</sup> March 2015	Poster	2015
9	Observer based Nonlinear Predictive Control of Index-1 DAE Reactive Distillation System Exhibiting Multiplicities	J.L.Purohit, S. C. Patwardhan, S. M. Mahajani	RSS-2012	Oral	2012
10	Steady State Multiplicities in Reactive Distillation Column: Thermo-Kinetic Analyses	J. L. Purohit, S. M. Mahajani, S. C. Patwardhan	RSS-2011, IIT-Bombay	Poster	2011
11	Silica gel supported MSA and TFA as solid acid catalyst for esterification,	Kamlesh Tayade, Krina Patel, Manish Mishra, Meka Srinivasarao	Western India Research Scholar's Meet (WIRSM- 2011) organized by	Oral	2011

			Department of Chemistry, M.S. University of Baroda, Vadodara, 17 <sup>th</sup> September, 2011		
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## **CRITERION IV - INFRASTRUCTURE AND LEARNING RESOURCES**

### **4.1 Physical Facilities**

#### **4.1.1 How does the university plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?**

##### **Planning of Physical Infrastructure:**

The University meticulously evolves strategy to enhance the physical infrastructure in order to balance the ever increasing demand for additional space. As per Dharmsinh Desai University norms, all the physical facilities are established to have a very good teaching and learning system. The requirement is prepared in consultation with the head of the department (HoD), Dean and top-level management committee and subsequently submitted to the Board of Governors (BoG) for approval. Once it is approved, the same is implemented with the help of professional in the concerned area. As a result of careful planning and efficient execution, the University has enhanced physical space in terms of classrooms, research and development and teaching laboratories.

While evolving the time-table for various courses, care is taken to ensure optimum utilization of infrastructural facilities. Priority is given to academic activities for usage of Seminar and Conference Halls.

Apart from the regular practical sessions, the laboratories are used for various other activities like project works of UG, PG, Ph.D. and research scholars, and also for the conduct of various short term programmes.

Each Faculty has computer facilities as per their norms. Each department has its own computer center and a central computer facility is also available, Which is also used for admission procedures, placements works, use of outside agency for online tests etc. Training in Computer Applications is offered to the teaching and non-teaching staff. The center is also utilized for women empowerment programme, short term course on Computer Applications for School Children and Computer Training to Self Help Groups.

The Central Library is used by all the students and the staff from 8:30 am to 8:30 pm. Research scholars, Alumni / Employees of institutions are allowed to refer and borrow books from the Library.

Auditoriums are used for conducting seminars, inter-collegiate events, Arts fest, general assembly, graduation, all the activities and meetings of the Alumni and Associations of various departments, workshop, Seminars.

Governing Body, Board of Management, Academic Council and VIPs Meetings are held at the University Board Room. Faculty level meetings are held at Faculty Board room.

The University has its own transport facilities for the students and the staff from Ahmedabad and Baroda.

The Canteen that functions from 8:30 am to 6:00 pm, supplies snacks and food to the students, staff, visitors and guests during working days and weekends. The Canteen also caters to all the programmes and functions organized in the university.

Generator with power capacity of 250 KVA, Invertors and UPS ensure the uninterrupted power supply on the campus during power failure.

The playground is mainly utilized for athletics, outdoor games, mass drill, NSS/NCC activities and tournaments. The indoor facilities are utilized for gym, table tennis, badminton and other indoor games.

### **Optimum Utilization of Physical Infrastructure**

The University has taken several measures for the optimum utilization of its physical infrastructure. Some of them are listed below:

- A shift system is followed for optimum utilization of classrooms, laboratories and transport system.
- Some of the common laboratories are used by different departments / Faculties on a sharing basis through proper planning.
- The University ensures that certain infrastructure facilities, such as auditoriums, seminar hall, Conference rooms, etc. are shared amongst all the faculties depending upon their requirements. The sharing of these resources is ensured through proper planning and coordination.
- All the Faculties are required to plan their annual academic activities, well in advance in order to utilize the available infrastructure efficiently.
- All the sports facilities of the University are commonly shared by the students of the all Faculties under the University through proper planning and co-ordination.
- Lunch break for various programmes are adjusted in such a way that the mess facilities could be utilized smoothly without overcrowding.

### **Salient Features of Physical Infrastructure**

The university has a sprawling lush-green campus. Various buildings have wide open spaces in between them which adds to the ambience of the campus.

The glimpses of the University physical infrastructure are given below:

- All the blocks have spacious and well ventilated classrooms, seminar halls, computer center, state-of-art laboratories, libraries with rich resources (both print and electronic), conference and board rooms. The class-rooms of the Faculty of Dental Science and Faculty of Pharmacy are air-conditioned.
- There are two modern air-conditioned auditoriums for conducting various extra and co-curricular activities.
- In addition, the faculty rooms and the administrative offices are available in all the Faculties.
- In addition to a modern sophisticated gymnasium, the facility for indoor and outdoor games is also available.
- A central DG set (capacity 250 KVA) is deployed for uninterrupted power supply.



- Adequate water supply ensures the availability of clean, potable water in each building.
- There is a well-functioning transport facility for the convenience of the faculty, staff and students.

**4.1.2 Does the university have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.**

**Yes.**

**Policy**

To study the needs of the stakeholders of the University periodically, create and enhance necessary infrastructure facilities and put them to optimum use.

The BoG meets twice a year to consider the academic and administrative requirements of the University. Besides, as and when the need arises, budget for the augmentation of infrastructure is proposed and passed through resolutions in the Governing Body Meeting.

**Recent initiatives**

Some of the initiatives taken by the University in last four years for the creation and enhancement of infrastructure are given below:

- Development of infrastructure for the newly started Central Library
- Construction of a Narayan Bhavan Building for Mechanical Engineering Department
- Addition of classrooms in the Faculty of Technology
- Up gradation of library facilities
- Up gradation of IT infrastructure and Internet speed from 20 Mbps to 50 Mbps
- Modernization of Campus Internal road System
- Remodeling of the University Main Gate
- Addition of Lift Facility in the Faculty of Dental Science
- Replacement of old computers with the latest configuration computers and purchase of modern software and equipment for laboratories

**4.1.3 How does the university create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?**

Some of the salient features are listed below:

- Established modern modular type of labs for lab experiments and research purposes
- Established several computer labs either at the departmental level or college wise
- Internet and e-mail, reprographics facility is available
- Majority of classrooms are equipped with ICT facilities to facilitate the effective teaching-learning process.
- All the faculties are equipped with the state-of-the-art teaching laboratories and necessary research laboratories.
- The faculties of the University work seamlessly and efficiently through highly

- effective connectivity via Internet and Intranet. The Internet bandwidth is 50 Mbps.
- The library resources are available to the faculty members during library timings, whereas the electronic contents are available on the Campus with IP based login facility.
- All the faculty members are provided with well-furnished cabins with all basic facilities and personal computers.

**4.1.4 Has the university provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?**

**Yes.**

The University has provided all basic infrastructure facilities to all the all faculties. These include:

- A separate Administration Office with sufficient staff for each faculty. The office includes fully-furnished separate rooms for Student Section, Administration Section and Dean's Office.
- All buildings have separate rest rooms for male/female students on each floor of each block.

All the faculties have common rooms facility for female students.

**4.1.5 How does the university ensure that the infrastructure facilities are disabled-friendly?**

- The requirements of the physically disabled students are specially attended by their fellow students, NSS volunteers and faculty members.
- All key administrative and utility sections are located on ground floor.
- In new buildings ramp facility and lifts are available.

**4.1.6 How does the university cater to the requirements of residential students? Give details of Capacity of the hostels and occupancy (to be given separately for men and women)**

The University provides residential facilities to all students on a twin sharing basis. There are two hostels on the University campus. The details of hostel capacity and occupancy are given in below.

Details of Hostel Capacity and Occupancy

Hostel Type	No. of Hostels	Capacity	Occupancy
Boys	1	425	423
Girls	1	100	100

**Give details of Recreational facilities in hostel/s like gymnasium, yoga center, etc.**

The hostel rooms are spacious and well furnished with balconies.

- Common Room facility exist in all hostel. The facilities include a Television Set and indoor games availability.
- The mess attached to the hostels also provides Tea/Coffee and snacks.
- The University has made arrangements to provide medical facilities on the campus by appointing a full time Doctor
- Constant supply of safe drinking water
- Security is available in individual hostels and 24 hour security is available on the campus.
- Library facility in the hostels: Facilities are extended for news paper and magazine readings

**Give details of Broadband connectivity / Wi-Fi facility in hostels.**

- Hostel students are benefitted with 50 Mbps dedicated Optic Fiber Lease Line, which enables round the clock high speed internet connectivity.

**4.1.7 Does the university offer medical facilities for its students and teaching and non-teaching staff living on campus?**

**Yes**

The Health Centre offers free medical treatment to students, staff and their families. There are specialists attached to the Centre who offer expert medical advice. The Health Centre situated in the Faculty of Dental Science Campus. It is open from 9-00 a.m. to 4-00 p.m. on all working days. It has well equipped pathology lab, Physicians, dispensary etc. Staff and students receive only out-patient treatment at this Centre. The centre is also equipped with an Ambulance for the effective management of medical emergencies.

**4.1.8 What special facilities are available on campus to promote students' interest in sports and cultural events/activities?**

The University has two Auditoriums. All cultural and other extracurricular events are organized in this auditoriums.

The University has necessary infrastructure to promote sports and games. The facilities available are as follows:

- Facilities for other in-door games such as Carom, Chess, Table Tennis and Badminton.
- Sports Ground with facilities for Volley Ball, Cricket Etc. Staff
- Students are given training in all sports and games to take part in collegiate, inter-collegiate and the state level competitions. Expert trainers render regular coaching for Badminton, Table Tennis, Cricket and Volley Ball.
- To encourage participation of students in cultural activities, the University has taken various initiatives, such as formation of various Clubs/ Committees which ensures healthy participation in various activities throughout the year. Students are

encouraged to participate in the department-wise competitions, the inter-collegiate and inter-university cultural competitions.

- Central foyer is used as open air auditorium.

## 4.2 Library as a Learning Resource

### 4.2.1 Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been taken by the committee to render the library student/user friendly?

**Yes.**

The University has formed a Library Council as an Advisory Committee at the University level. This Council has been constituted for the purpose of smooth functioning, improvement and coordination amongst all the libraries and the management. Similarly, all the Faculties have Library Committees for smooth functioning and for regularly reviewing the growth of the libraries.

The composition of the Library Committee is as follows:

<b>University Level Library Committee</b>	
Prof. D. G. Panchal, Dean, FoT	Chairman
Dr. B. S. Jathal, Dean, FoD	Members
Dr. B. N. Suhagia, Dean, FoP	
Dr. N. K. Patel, IQAC Coordinator	
Prof. G. D. Bassan, Head, Mechanical Department	
Dr. C. K. Patel, Chief Librarian	Member Secretary

#### **Functions of the Library Committee:**

- The Library Council/Committee plays a vital role in policy decisions related to (i) Library Vision and Strategy, (ii) Collection. Development and Utilization of the Resources, (iii) Preservation and Archiving of Print & Electronic Resources, including information generated by different faculties of the University. (iv)Purchase of Resources (v) Library Automation. (vi) Building and Space Provision
- Proposing Library Budget
- To deliberate on Library Services and Activities

#### **Significant Initiatives taken by the Library Committees:**

- Extension of the Faculty of Technology library.
- Conduct of Library usage Orientation during Faculty and Student Induction/ Orientation Programmes.
- Remote Log-in facility for accessing online resources is being provided to all the faculty members and the students of the University thus making online resources available across University Campus to the users.
- Implementation of various library policies, including Library Material Purchase Policy, Book Bank Policy, Electronic Resource Access Policy and Remote Login Usage Policy.
- Building and maintaining Knowledge Repository.
- Faculty publications and Institutional publications.

#### 4.2.2 Provide details of the following:

\* **Total area of the library (in Sq. Mts.)**

\* **Total seating capacity**

\* **Working hours**

**On working days, On holidays, before examination, during examination, during vacation**

\* **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**

\* **Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-able users and mode of access to collection**

The University has 4 faculties and all of them have separate libraries. The faculty members / students can visit any library and can take benefit of the resources. The details of library area, seating capacity and working hours are provided in Table

#### Details of library Area, Seating Capacity and Working Hours

<b>Name of the Faculty</b>	<b>Library &amp; Reading Area</b>	<b>Seating Capacity</b>	<b>Working Hours</b>
Faculty of Technology	10709 Sq. Ft.	380	8:30 am to 5:30 pm
Faculty of Dental Science	8000 Sq. Ft.	250	8:30 am to 5:30 pm
Faculty of Pharmacy	1680 Sq. Ft.	60	8:30 am to 5:30 pm
Central Library	25000 Sq. Ft.	450	8:30 am to 8:30 pm
Total	45389 Sq. Ft.	1140	

Note: Depending upon the requirement, the library hours are extended.

#### Layout of the Library:

All the libraries of the University are well-planned in terms of layouts. In general, the library is divided into different sections like Lending Section, Reference Section, Circulation Counter, Check Counter, Open Public Access Catalogue Section, Staff Area, Reading Area, Periodical Section, Photocopy Section, Digital Lab, Bound Volumes Ares, etc.

#### Display of Floor Plan:

- Adequate sign boards are available in all the libraries.
- Proper signboards are available in each row of the book shelves and the books are arranged according to specific number system.
- Adequate numbers of fire alarms are available in each building of the University.

#### 4.2.3 Give details of the library holdings: a) Print (books, back volumes and theses) b) Average Number of Books Added during the last Three Years, c) Non prints (Microfiche. AV) d) e-Books and e-Journals. e/ Special Collections, I) Book Banks, g) Question Bank

#### Print (books, back volumes and theses)

The total print collection including all the libraries comprises books, Periodicals, back volumes and other print materials. The print collection includes 54,612 books, 7712 Back Volumes and 718 theses. etc.

**Average Number of Books Added during the Last Three Years:**

Total 5500 Books

Average 1854 books / year

**e-Books and e-journals:**

The Library has an excellent digital library system in place with access to online periodical databases, which include more than 7600+ e-journals like:

- ACM digital library
- Science direct
- Wiley on line library
- Springer link
- Taylor & francis
- JSTOR
- Oxford university press
- Economic & political weekly
- Open access journals search engine (OAJSE)
- Directory of open access journals (DOAJ)
- International Endodontics
- Journal of American Dental Association
- British Dental Journal
- International Journal of Oral & Maxillofacial Surgery
- Dental Clinics of North America
- American Journal of Orthodontics & Dentofacial Orthopedic
- International Journal of Prosthodontics
- Quintessence International
- British Journal of Oral & Maxillofacial Surgery
- International Journal of Oral & Maxillofacial Implants
- European Journal of Orthodontics
- International Journal of Periodontics and Restorative Dentistry
- Elsevier's Science Direct

**Book Banks:**

A book bank facility is available to the students of the Faculty of Technology. The main purpose of this service is to help the needy students. The book bank has a separate collection of approximately 2,007 books other than the library books.

**Question Banks:**

The libraries have started to provide digital access of previous years' question papers to the users.

**4.2.4 What tools does the library deploy to provide access to the collection?****\* OPAC**

Online Public Access Catalogue (OPAC) is available on the Intranet for inquiring the status of the library resources

**\* Electronic Resource Management package for e-journals – Available**

The library have arranged automated setup with user-friendly portal providing a single point access to e-resources and other digital materials

**\* Federated searching tools to search articles in multiple databases**

Available

**\* Library Website**

Through University Website

Each library of the Faculty of the University has an access through University Website. The library portal facilitates access to digital resources, like journals, Magazines, Videos. etc.

**\* In-house/remote access to e-publications**

In-house Access

**4.2.5 To what extent is ICT deployed in the library? Give details with regard to**

**\* Library automation**

The Library is automated through High end library automation software ‘SOUL’ Bar-coding is used for circulation and stock verification.

**\*Library Automation:**

- All the libraries of the University are fully computerized with user-friendly library web-based and Open Source Software ‘SOUL’.
- The system consists of modules on book acquisition. Circulation. Periodicals. OPAC, Web OPAC. etc.
- SOUL facilitates automated circulation (issue and return) of the books and location and availability information of the books stocked in the library.
- Online Public Access Catalogue (OPAC) is available on the Intranet for inquiring the status of the resources.
- Bar-coding System is in use to computerize the bibliographic details of the resources.

Total number of computers for public access – 50

The library has separate OPAC Area and Digital Lab Area.

All computers are available for OPAC and digital resource access.

Total number of printers for public access - 2

Internet band width speed - 50 Mbps

**Institutional Repository**

Library has the following institutional repository:

M.Tech and PhD Thesis are available in the library. PhD Thesis for last 5 years are available on the Institutional Repository. College Magazines, Hand books, Proceedings of the conference / seminars held in the college premises, study materials prepared at the college, and Reports of minor and major research projects of faculty members, copies of student project reports, question bank and syllabi approved in the Academic Council, books and research articles published by the faculty.

**\* Participation in resource sharing networks/consortia (like INFLIBNET)**

The Library is a member of: (i) DELNET (Developing Library Networking), and (ii) INFLIBNET.

#### **4.2.6 Provide details (per month) with regard to**

- Average number of walk-ins – 15000+ per Month
- Average number of books issued/returned – 7500+
- Ratio of library books to students enrolled – 10:1
- Average number of books added during the last four years – 7000+
- Average number of login to OPAC: 1200
- Average number of login to e-resources: 750
- Average number of e-resources downloaded/printed: 500

#### **4.2.7 Give details of specialized services provided by the library with regard to**

##### **\* Manuscripts**

Collection of Thesis and Dissertations, Research Notes, etc. are treasured in the library.

##### **\* Reference**

The library has 4500 reference books, 7712 back volumes, 135 print periodicals and 718 theses in reference section. Reference service helps the users to make the full use of library resources and services.

##### **\* Reprography/Scanning**

All the University libraries provide reprographic facility to the students and faculty members. Scanning facility is available on request. Photocopying service is provided to the users on payment basis for reference materials.

##### **\* Inter-library Loan Service**

Under DELNET Inter-library loan services is available and among University faculty libraries this facility is fully available. This facility will be further explored under CBCS when common subjects will be offered at University level.

Inter Library Loan Service is extended to Faculty of Dental Science and Faculty of Pharmacy.

##### **\* Information Deployment and Notification**

- Information related to new arrivals and new implementations are displayed on the library notice board.
- Providing classes on Information Literacy Competencies to all the students.
- The users are provided with the information related to book issue/return
- Information on Current Affairs, Employment Opportunities and Competitive Examinations are displayed on the notice boards.
- The notification of the list of search engines and site addresses is affixed at the Internet center at the library.

##### **\* OPACS**

Online Public Access Catalogue (OPAC) is available on the Intranet for inquiring the status of the library resources.

The search for information is facilitated by the bibliographic description of books entered in the library automation software 'SOUL'.



**\* Internet Access**

Internet browsing facility is available for staff and students from 8:30 a.m. to 8:30 p.m. Facility to download and print online resources is also available. Specific sections are allocated in the libraries for accessing online library resources.

**\* Downloads**

Article downloading facility is also available in the library. The students can access all online journals on the campus and can also download the articles as per their requirements.

Adobe Reader, Adobe Flash Player, Google Chrome, Mozilla Firefox, Internet Explorer, free Antivirus Software are kept for use.

**\* Printouts**

Printer is available to take print-outs of the downloaded information from 8:30 a.m. to 8:30 p.m.

**\* Reading list/ Bibliography compilation**

The reading list data is compiled for subject-wise books and text books, projects and theses.

On request, the reading list on specific topic is provided to the users with the help of OPAC.

**\* In-house/remote access to e-resources**

Through INFLIBNET access is made to the prescribed e-journals.

**\* User Orientation**

The freshers are oriented in the beginning of the academic year towards reading habits, rules and regulations, library resources, infrastructure facilities, time schedule, circulation of books, special facilities for the physically challenged and assistance rendered by the library staff.

Orientation through demonstration is provided to the staff and students whenever new technological services such as computerization of library and provision of e-resources through INFLIBNET and Bar-coding facility are introduced.

**\* Assistance in searching Databases**

The library also provides one to one training to the users, desiring to learn more about searching the online journals and also to know more about the features in specific database and resources.

The search strategy is instructed to the users. They are assisted for access to the printed resources through OPAC. They are guided by the library staff in-charge of Internet centre about search engine, site addresses and online resources.

**\* INFLIBNET facilities**

e-resources available through INFLIBNET via IP address.

#### **4.2.8 Provide details of the annual library budget and the amount spent for purchasing new books and journals.**

The details of the annual library budget and the amount spent for purchasing new books and journals are provided below.

Details of the Annual Library Budget for the Year 2014-15

<b>For New Books</b>		<b>For Journals</b>	
Amount Allocated	Amount Spent	Amount Allocated	Amount Spent
500000	473260	700000	655321

#### **4.2.9 What initiatives has the university taken to make the library a 'happening place' on campus?**

University activities are displayed in Central Library notice board. Further, reference books and books for competitive examinations have been acquired in recent years.

The following initiatives are taken by the University to make the library a 'happening place' on the campus:

- The library circulates the list of new arrivals (books and issues of journals) in the library.
- The students' requirements towards the resources, which are not available in the library holding, are being fulfilled through the Inter Library loan facility.
- The students are being provided with ambient environment that supports reading and preparation for various competitive examinations.
- The librarians organize User Education Programmes, like Orientation Programmes, Information Literacy Programmes, IT related orientations. etc.
- The library staff members are courteous and proactive. They always help the users as per their requirements.

#### **4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analyzed and used for the improvement of the library services?**

##### **Strategies used by the Library to Collect Feedback:**

The libraries take feedback from the users on a regular basis. The suggestions are also obtained from the faculty and staff members informally. In addition to the oral feedback, the few components in the structured feedback format from IQAC indicate the suggestions and views of the library users. Suggestion Box is available in the library. Graduating Students give their feedback to the respective departments about the library.

##### **Analysis and Improvements in Library Services**

The feedback of the students and staff is then analyzed. Important points are noted and discussed during Library Council / Library Committee meetings. Based on the discussion/suggestions, necessary changes are made in the library.

Many suggestions are implemented in the library, including increasing the number of textbooks and periodicals, library space extension, reference books and general magazines loan to the students and faculty members, added many books and periodicals on students' suggestions, extended library timings. etc.

#### **4.2.11 List the efforts made towards the infrastructural development of the library in the last four years.**

During last four years, Central Library has been created and all the latest facilities are available and number of books has been increased substantially and library is made more user friendly.

### **4.3 IT Infrastructure**

#### **4.3.1 Does the university have a comprehensive IT policy with regard to IT Service Management, Network Security, Information Security, Risk Management, Software Asset Management, Open Source Resources, and Green Computing**

University IT, ICT, network & internet operations were established in 2000, with sophisticated network user community working in challenging research areas spread across campus to enable researchers, academics, students and administration to use information and communication technologies and expertise to achieve and maintain knowledge superiority essential for dominating the academic and research spheres. The university operates network operating centers (NOC) with basic network facility serving users direct and indirect connectivity and maintains the University's inter and intra network, internet, information space and services to directly support operation for research and to promote innovative solutions.

Centralized IT infrastructure for e-governance and examination processing has been established and supports the online results processing for all the Faculties.

Security and a mid-level network security has been covered. First level IT and network user policy is in force. Improved network and internet infrastructure was envisaged based on the demand and importance in an academic and research institution. Revamping and modernization of network and internet was initiated with an emphasis to provide increased internet access and better connectivity. For this, campus NOC has been strengthened with advanced computer servers for providing network connectivity and internet by way of secured connectivity. Network and Internet access speed has been augmented to the campus by a 50 Mbps connection. An initiative has been started on green computing. In recent times, the networks are provided with the first level security to avoid any intrusion by any external forces.

A dynamic website updating facility for faculties and administrators has been provided. The modified website is user friendly and informative. It is also planned to bring out a research portal of our university to bring out all the research activities and outcome in a professional manner so that our credentials and achievements can be made public.

**4.3.2 Give details of the university's computing facilities i.e., hardware and software.**

**\* Number of systems with individual configurations**

**Faculty-wise List of Computers**

Name of Department	System Configuration									
	PIII	PIV	DC	C2D	Q2D	I3	I5	I7	Laptop	Server
FoMIS	0	40	61	0	0	13	0	0	3	3
FoT	1	98	245	192	0	250	1	0	15	13
Pharmacy	-	-	48	-	-	-	-	1	-	1
Dental	-	15	5	23	-	7	-	-	-	1
Total	1	153	359	215	0	270	1	1	18	18

**\* Computer-student ratio**

1:4

**\* Dedicated computing facilities**

The computing facilities are centrally managed with various dedicated and high performance [servers, so](#) as to meet the growing demands of data processing within the campus. The servers are maintained using the UPS facilities to avoid sudden disruption in services. There is a central computing facility.

**\* LAN facility**

The campus is connected through a fiber optic LAN.

**\* Proprietary software**

The University has a large number of licensed software to incorporate the latest tools and technologies in the industry along with the teaching methodologies. Some of them are listed below.

- Matlab 7 (50 users)
- Aspen 7.1 (100 users)
- Chemcad (50 users)
- HTRI 5 (20 users)
- Fluent 6.3 (20 users)
- GAMS (20 users)
- Gambit (20 users)
- Gprom ( 3 users)
- Windows XP (21 users)
- Windows 7 (50 starter addition)
- Quick Heal (120 users)
- Dolphin (10 users)
- LabVIEW 7.1 University Campus license
- Wonderware Intouch SCADA software
- Allen Bradley RS VIEW

- Windows 7 – 12 license copies
- Centos system on all computers
- Dolphin Software

**\* Number of nodes/ computers with internet facility.**

All computer/node are connected to a LAN using a hard wired connection

**\* Any other (please specify)**

A few campus specific initiatives

- Maintenance of green environment
- Paperless communication by increasing the use of internet and intranet
- Reduce the quantity of waste by reusing single sided paper

**4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

With the growing demand for processing of large volume of data, the future vision of the University is to have a specialized high performance computing environment for supporting the existing systems. The efforts will be made to develop various other systems, like:

- Online Assessment System for Written Examinations
- Development of an Automatic Attendance System
- Automated Document Management System
- Cost Effective Cloud Infrastructure along with virtual Desktop Environments

**4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.**

The following resources are provided to the staff and students for quality teaching, learning and research:

**Infrastructure:**

- A state-of-art gigabit network connecting the campus nodes.
- 50 Mbps dedicated optic fiber leased line enable round the clock Internet connectivity on the campus with a backup Radio Link in case of emergency.
- Intranet based facilities through FTP for data sharing within the campus.

**Library:**

- Access to a wide range of information resources including, leading national and international research journals and periodicals, databases, electronic media, project reports, etc.
- The library is fully computerized and operates on specialized library software ‘SOUL’.
- Remote Login facility for providing facility to secure access paid/licensed resources within the campus.

#### **4.3.5 What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?**

The technologies deployed by the University to enhance the teaching-learning and assessment processes are listed below:

- The University has provided a Computer to all the faculty members.
- Moodle for conducting online tests, assessment of assignments. etc.
- Encouragement to PG and Ph.D. students for maintaining their digital profiles on scientific social networking sites, like Research Gate. Medley Desktop. etc.

#### **4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?**

The following IT facilities are available to the teachers for effective teaching and quality research:

- The University has given laptops/desktop computers to all the faculty members.
- A state-of-the-art gigabit network connects every corner of the University. Also, 50 Mbps dedicated optic fiber leased line enable round the clock internet connectivity on the campus.
- Each faculty is given access to online library resources.

#### **4.3.7 Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?**

ICT facilities serve as a good visual aid and empower teachers to transform the traditional black board, chalk and talk method into interactive sessions. This mode of teaching enables the teachers to simplify the complex concepts, so as to help the students record the perception in their memory for a longer period of time.

ICT enabled research room facilitates and quantifies the qualitative research output of the researchers.

The majority of the classrooms of the University are ICT-enabled with various audio visual facilities including video projectors, overhead projectors, speakers. etc.

#### **4.3.8 How are the faculty assisted in preparing computer- aided teaching-learning materials? What are the facilities available in the university for such initiatives?**

- Demonstration and workshops on preparing computer aided teaching-learning materials facilitate the faculty.
- The computers / laptops provided to each department enables the staff to prepare teaching-learning materials, design the syllabus material for the curriculum and to prepare the question papers for the mid and end semester examinations, model question papers and association activities.
- The University has internet facility, dedicated optic fiber leased line of 50 Mbps

speed facilitate access of various online learning materials, video lectures, and presentations. etc.

- Access to e-material provides the contents for preparing the teaching-learning aids.
- LCD projectors are used for effective classroom instruction and for student seminars. Internet facility is used by the staff for research and for planning their teaching methods. The individual department develop their course through power point presentation for conducting classes

#### **4.3.9 How are the computers and their accessories maintained?**

The computers and their accessories are maintained by the service personnel on per call basis as and when require.

#### **4.3.10 Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?**

No.

#### **4.3.11 Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?**

The University provides internet access through which web resources such as Wikipedia, etc. are available to the university community. Additionally, the University subscribes to electronic journals and databases which are accessible to the University community from their computer.

#### **4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.**

The University Computer Center and IT Cell has a flexible, need based financial allocation for maintaining its facilities and services for different faculties.

#### **4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?**

To begin with, sufficient assistance is provided to the teaching community and user community by providing the facilities of ICT in teaching and learning process. Field exposure through work experience, educational tours, industrial visits, collaborations with research institutes and laboratories are encouraged to enhance practical knowledge of students.

The University has implemented its IT hardware infrastructure as well as software platform such that the learning management system can be used to deliver course content to participants. Faculty may also choose to share their material via electronic means with students as per needs.

#### **4.4 Maintenance of Campus Facilities**

##### **4.4.1 Does the university have an estate office / designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.**

**Yes,**

The maintenance of buildings, class rooms and laboratories is managed by the estate office of the University. The major repair and maintenance works are outsourced by the Estate Office. Sophisticated and office equipments are covered by annual maintenance contract.

Initiatives undertaken to improve the physical ambience are

- Planting of trees
- Shrubs and manicured lawns.
- Updating of Campus Internal Road System
- Proper car parking areas

##### **4.4.2 How are the infrastructure facilities, services and equipment maintained? Give details.**

The technical staffs are appointed for maintenance and repair works of lights, fans and speakers. The computers, laptops, LCD, intercom, UPS, printers, air conditioners and generators are maintained and repaired by the service personnel on per call basis The maintenance of laboratories is taken care of by the laboratory assistants.



## CRITERION V - STUDENT SUPPORT AND PROGRESSION

### 5.1 Student Mentoring and Support

#### 5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes

- An Orientation Programme is organised for newly admitted students and their parents. This acts as an icebreaker and orients them with the environment, culture and the system of the university.
- In order to tackle the psychological and acclimatization problems of the students, a Counselling Cell has been established in each department. The University has formalized to assign student counsellors in every department who takes care of their academic, social, financial and personal problems.
- The University has student support and mentoring through multiple systems such as
  - Formal and Informal Mentorship
  - Student Grievance Redressal Cell
  - Internal Complaints Committee (for girl students)
  - Student's Clubs (SINE, Spandan, GoMad, Nirman, Shutterbugs, DDU Connect.)
  - Extension Activities
  - Multimedia Language Laboratory
  - Sports room
  - University Research Committee
  - NCC and NSS
- Students are encouraged for involvement in Extra Curricular and Co-curricular activities on regular basis. They are provided with a platform for such events like Technical and cultural competitions, social initiatives and extramural activities at university and national level.
- The University provides all the required help to students to serve the society through the Social Initiatives like Blood Donation Camps, Dental Checkup Camps etc.
- Students are encouraged to participate in workshops, conferences, seminars, expert lectures, and also in paper/poster presentations.

#### 5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

- Apart from classroom interaction, Tutorial sessions are planned in several courses to provide guidance to the students in smaller groups.
- For in-house and industry projects the students are assigned a faculty guide from whom they can seek guidance.
- During industry visits, the faculty members accompany the students and help them understand industrial problems, processes, applications and environment.
- The mentors track the performance of their wards, address any issues faced by them and brief the HoD for remedial actions if required.
- Students are encouraged to participate in various technical events apart from classroom interactions that include, programmes organized by the professional

societies (ISTE/IEEE/ISHRAE/SAE/CSI/ISA etc.) intra-mural competitions, intercollegiate symposia, project design contest and workshops.

**5.1.3 Does the university have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.**

- For soft skills development, the subjects like Communication Skills, Yoga, Ethics, Values and Stress Management
- Values and stress management are the regular features of the curriculum.
- Students are taught Resume Writing, Group Discussion and interview techniques. These sessions begin with Johari Window and SWOT Analysis which helps them to understand and overcome their weaknesses.
- In-house and outsourced programmes are organized for the career counselling and soft-skill development of the students through active participation in seminars, training programs and workshops conducted by experts from the industries.
- Such programmes are organized at both departmental level and central level by the placement cell. For the preparation focusing the specific placement drives, workshops are conducted with the help of the external experts.
- Focused preparation for specific placement drives with the help of external experts makes the students ready for the recruitment process
- Students go on industry visits and also take up long term internships for hands-on experience in their areas of interest and specialization.
- Various training programmes are arranged throughout the academic cycle by the respective department as well as Special Interest Groups, for theme specific training and upgradation of knowledge. Some examples are Workshop on Robotics, AI, Android development, etc.
- Competitions are organized for raising the level of academic competitiveness amongst students. Examples are model making competition, robot wars competition, poster making competition, paper presentation competition etc.
- Students are encouraged and funded to participate in national and international academic competitions organized by associations / institutions such as ISIE- Hybrid Vehicle Making Competition etc.
- The following is the detail of placement and career related Seminars/workshop/sessions organized year wise

<b>Year</b>	<b>No of Seminar/workshop/sessions arranged</b>	<b>No of students benefited</b>
2011	15	1173
2012	08	1200
2013	06	723
2014	04	387
2015	11	775

**5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?**

Yes

**5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues / activities / information included / provided to students through these documents? Is there a provision for online access?**

- As the admissions procedure is carried out by the Joint Admission Committee of Gujarat State, prospectus and other such information (KYC) is published by them.
- The detailed information about all programs and courses is available on the university website.

An Academic Program booklet is provided to every student admitted in the university. It contains the following information:

- Timings, accommodation, rules and regulation
- Academic calendar
- Time table
- Teaching Scheme and Textbook/reference books
- Information related student services like bus/railway concession, scholarship, laboratory journals, library and Identity card etc.

**5.1.6 Specify the type and number of university scholarships / freeships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/Ph.D./Diploma/others (please specify).**

**Scholarships provided by the University.**

Academic Year	No of Beneficiaries	Amount Received in (In INR)
2010-11	45	2,50,000
2011-12	42	2,35,000
2012-13	43	2,87,500
2013-14	44	3,50,000
2014-15	192	40,29,000

**5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?**

**Financial Assistance received from the Government**

Academic Year	State/Central Government		Tuition Fee Waiver Scheme	
	No. of beneficiaries	Amount Received in INR	No. of beneficiaries	Amount Received in INR
2010-11	198	34,57,120	14	3,55,263
2011-12	146	51,43,530	25	12,58,970
2012-13	353	56,96,170	28	15,57,822
2013-14	293	69,67,350	32	16,01,275
2014-15	472	1,19,01,370	32	16,18,525

**5.1.8 Does the university have an International Student Cell to attract foreign students and cater to their needs?**

- All admissions are being done through Admission Committee for Professional Courses (ACPC), Government of Gujarat as per their guidelines
- All the programs are open to International Students subject to fulfilment of the eligibility criteria
- The University has an MoU for student exchange with IOWA University

**5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?**

Yes

**5.1.10 What types of support services are available for (i)overseas students (ii) physically challenged / differently-abled students (iii) SC/ST, OBC and economically weaker sections (iv) students participating in various competitions/conferences in India and abroad (v) health centre, health insurance etc. (vi) skill development (spoken English, computer literacy, etc.) (vii) Performance enhancement for slow learners (viii) exposure of students to other institutions of higher learning/ corporates/business houses, etc. (ix) publication of student magazines.**

**Physically challenged / differently-abled students**

- There is a provision for allotting a writer during the examination in a condition when a student is not able to write on his own
- Separate seating arrangement in examinations, if required

**SC/ST, OBC and economically weaker sections**

- There is an Equal Opportunity Cell in the University for upliftment of the SC, ST and OBC students.
- In addition to the Govt. Scholarships the students from the weaker sections of the society are given Merit-cum-Means based scholarship and Book Bank facility.

**Students participating in various competitions/conferences in India and abroad**

- The university promotes and helps students to get involved in extra-curricular activities.
- Students participating in such activities are given faculty mentor, access to university resources and financial assistance. The faculty mentor accompany them in certain cases. Relaxation in attendance criteria is also given to such students.

**Health centre, health insurance etc.**

- The Health Centre is operational in the University campus. It caters to all kinds of outpatient treatment and medical emergency conditions for students and staff. Health Center on the campus is located centrally in the Dental Hospital.
- Students regularly take advantage of this facility on the campus.
- It has well equipped pathology lab, X-Ray facility and a Pharmacy unit.
- In addition to physicians, specialist doctors are available on scheduled days for expert advice.

### **Skill development (spoken English, computer literacy, etc.)**

- First year students are helped to enhance their Listening, Speaking, Reading, and Writing Skills in English and it is compulsory subject in curriculum.
- Team Building, Management Skills, Presentation Skills, Negotiation Skills, Listening Skills, Speaking Skills, Reading Skills, Writing Skills, Problem Solving and other skills are taught as a part of curriculum or through the projects given to them.
- The University has established ANCHOR INSTITUTE which is promoted by department of industries and mines (Government of Gujarat) for the fastest growing Chemicals & Petrochemicals sector of Gujarat. The objective of the Anchor Institute and its partners is to take various initiatives in creating readily employable and industry responsive Man Power, at all levels for chemicals & Petrochemicals across the State. This includes preparing Course curriculum and benchmarking and Training for the Trainers/Faculties.
- Add-on workshops are organised at departmental and university level for Communication and English language focusing on specialised areas and requirements.
- Soft skill training is provided through rigorous sessions in body language, verbal communication, CV Writing, and facing group discussion and interview panels. The faculty from the university and external experts carryout such trainings.
- GATE/ GPAT preparation coaching is given to prepare them for further studies

### **Performance enhancement for slow learners**

- Remedial classes are arranged for late admitted and slow learner students
- Task Based Approach is used in Communication Skills session where students learn at their pace. This approach helps slow learners to enhance and exhibit their capabilities to others and learn in groups.
- Tutorials sessions are planned in order to enhance problem solving capabilities. This helps weaker students by getting personal attention of the faculty

### **Exposure of students to other institutions of higher learning/ corporates/business houses, etc.**

- The students work with institutes and organizations of repute like IIT, IISc, IIM, ISRO and PRL for projects. They also participate in workshops/seminars and competitions organized by these organizations.
- The Bosch Rexroth Centre of Excellence (CoE) in Automation Technologies has been established for Industry Institute partnership in the field of automation technologies, with financial and technological participation by Bosch Rexroth. It focuses on training, knowledge transfer, projects, application, research and innovation. It have dedicated centers for each component of automation technologies – Hydraulics, Pneumatics, Drives and Controls, Sensorics, PLC's, Mechatronics and Robotics with dedicated resources.
- Inviting eminent personalities from other institutions and industries to deliver the lectures in conferences, seminars, workshops, and other training programmes
- Inviting external experts as members of various academic bodies like Board of Studies, Faculty, Board of Examiners etc

### **Publication of student magazines**

“DDUConnect” is a dynamic newspaper of the campus which is by the students, of the students and for the students.

**5.1.11 Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?**

**Yes**

Coaching classes are conducted for GATE examinations every year.

<b>Academic year</b>	<b>Name of Examination</b>	<b>No of students admitted</b>	<b>No of students qualified in the exam</b>	<b>Faculty involved in coaching/guidance</b>
2010-11	GATE	88	17	03
2011-12	GATE	92	21	03
	GPAT	30	15	06
2012-13	GATE	79	22	03
	GPAT	35	08	05
2013-14	GATE	76	19	03
	GPAT	25	02	06
2014-15	GATE	110	22	03
	GPAT	30	01	07

**5.1.12 Mention the policies of the university for enhancing student participation in sports and extracurricular activities through strategies / schemes such as (i) additional academic support and academic flexibility in examinations (ii) special dietary requirements, sports uniform and materials (iii) any other (please specify)**

- The university has both indoor and outdoor stadiums with a cricket ground, football field, space for kho-kho, and volley ball court. The University has gymnasium, and facilities for table tennis and shuttle badminton. To encourage sports, special tournaments are organized for the students and staff members.
- University players are provided with sports kit and sports gear.
- The students who participate in extracurricular and co-curricular activities are granted flexibility in meeting the attendance criteria.
- The students participating in sports competition at the state level and above, are given examination and other academic flexibilities.

**5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?**

- The Placement Cell facilitates the process of student's placements at the University, besides collaborating with prominent organizations in setting up of internship and training program of students.
- Apart from the placement services, it helps in student capacity building activities and projecting the competencies and skills to potential employers. The placement policies and other related activities are handled by Placement Cell, assisted by the Faculty In-charge from every department.

- Innovation and Entrepreneurship Development Center (IEDC) funded by DST is actively working to provide training and financial assistance for Entrepreneurship development of students. It provides seed fund for innovative project of the students every year
- Field trips, educational and industrial tours are organized to familiarize the students' with industry management and market behaviour.
- Special lectures and extension lectures on personality development, soft skills and communication skills are conducted periodically, wherein industry and subject experts are invited as resource persons. Course on English Proficiency and Personality development are also offered for students.

**5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).**

**Placement Details**

Particulars	2010-11	2011-12	2012-13	2013-14	2014-15
No. of companies visited	133	145	152	195	204
No of Students Selected	254	305	296	346	398

**Company wise placement details (Top 5 Employers)**

Year	Company Name	Students Selected	Year	Company Name	Students Selected
2011	TCS	28	2014	TCS	62
	Patni	20		Infosys	38
	Cybage	11		Reliance	23
	Reliance	10		iGatePatni	19
	Sibridge	08		GSFC	18
2012	TCS	59	2015	Infosys	102
	Mphasis	12		Reliance	18
	Cybage	11		GSFC	16
	Cignex	12		Tech Mahindra	16
	iGatePatni	07		iGatePatni	14
2013	TCS	42			
	Cybage	10			
	GSFC	06			
	GNFC	05			
	Zeus Learning	04			

**Other Major employers (Campus placement)**

Adani Gas	ZyduScadila	MASIBUS	Prakash	Amul
eInfochips	C-SAM	GSPL	Maruti Tech.	Fluvina
Matrix	I-Link	Cognizant	Argusoft	Alembic
Infibeam	Linde	ISRO	Helious	SIEMENS
Eliteore	Coromandal	PRL	L&T	Deepak Nitrate

Mphasis-HP	Crain India	Hirel	Essar	Tata Chemical
Petronet LNG	Flourish	BSNL	Evosys	Synoverge
L & T Infotech	Torrent Power	KHS-India	BOSCH Rexroth	Kotak Mahindra Bank
Aditya Birla Group	Prakash Chemicals	Financial Technologies	Thompson Reuters	Vardhman
Advance India	HDFC Bank	SRK Exports		

#### **List of Employers (Other than campus placement)**

IBM	Zeus Technocrats	Alcatel Lucent
Thompson Reuters	Arth-ISoft	CadilaPharma
CMC Ltd.	Veeda Clinical Research	VR Software

#### **5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?**

**Yes**

- The Dharmsinh Desai University Alumni Association (DDUAA) is actively contributing to the development of the university since more than two decades.
- The Alumni of the University have spread far and wide globally and done their Alma Matter proud by excelling themselves as academicians, administrators, scientists, scholars, entrepreneurs and technocrats. Several of them have reached heights of excellence in their respective fields and are significantly contributing to the socio-economic development of the nation and world at large
- With the primary objective to promote excellence in education through various activities like
  - Providing financial support in the form of Merit cum Means Scholarships
  - Awarding prizes to rank holding students.
  - Assisting in training and placement
  - Giving incentives for the participation in academic activities at State and National level.
  - organized several seminars / workshops / programmes
- Alumni meet of department/faculty level is also organized periodically, which contributes in the development of the department and the university.

#### **5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?**

- An effective grievance-redressal system exists in the institution. In case of any untoward incident occurs, the distressed can freely approach the authorities for immediate rescue and an appropriate action
- Students can report their complaints without revealing their identity through the Complaint Boxes made available by the Police Department.



**5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing cell and mechanism to deal with issues related to sexual harassment? Give details.**

- The university is committed to zero tolerance towards sexual harassment in pursuance of Vishakha guidelines.
- There is an Internal Complaints Committee to address issues related to sexual harassment
- The university has set up a Women's Cell. The objective of the Cell is to conduct gender sensitization programs to create awareness among staff & students, to educate and sensitize them about the evil menace of sexual harassment and to check and prevent incidents of sexual harassment.
- Some of the initiatives undertaken by the university to promote gender awareness and sensitivity are as follows:
  - Women awareness camp and Self-defence workshop
  - Demonstration of 108 and 181 Emergency Service for awareness
  - Visit of women cell members to Matruhaya orphanage
  - Lecture session related to law regulations for women

**5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?**

**Yes.**

- The university is proactive to prevent any ragging incidents in the campus. There is an Anti-Ragging Committee formed according to the Supreme Court verdict which is comprised of all stakeholders as stipulated by UGC. Anti-ragging squad is being constituted to monitor affairs on the campus on day to day basis.
- In last four years, no incidents of ragging occurred in the campus. DDU is a ragging free campus.

**5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?**

- The university takes extensive support from various stakeholders like: community, industry, parents, alumni and government to ensure overall development of the students. This is done through formal and informal interactions.
- Feedback received from the students is considered for teaching learning process and delivery.
- Parents of the students are informed about the progress of their wards and inputs regarding the procedures at DDU.
- Feedback from the industry helps to devise and revise the course curriculum through participation of industry representatives.
- Feedback from the alumni helps the students to understand the current industry practices.

**5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.**

- The University encourages all the women students to participate in various sports and cultural events actively.
- It is mandatory that women staff accompany girl students during educational field trips. Girls' participation in all University activities is on par with boys.
- Girls take active part in cultural programs, Departmental Volunteer Committees etc. Girls also participate in interdepartmental sports competitions.

**5.2 Student Progression**

**5.2.1 What is the student strength of the university for the current academic year? Analyse the Programme-wise data and provide the trends for the last four years.**

The total strength for the current academic year 2015-16 is: 4374

Name of the Program	Student Progression	Year wise %			
		2012	2013	2014	2015
B.Tech.	UG to PG	6.83	8.73	10.10	11.38
	Employed through Campus Selection	33.23	31.43	40.47	44.2
	Other than campus selection	19.26	22.18	21.10	23.15
M.Tech.	PG to M.Phil.	0	0	0	0
	PG to Ph.D	1.86	2.43	2.71	3
	Employed through Campus Selection	33.23	31.43	40.47	44.2
	Other than campus selection	15.20	17.15	13.10	18.25
B.Pharm.	UG to PG	15.63	18.75	46.15	29.72
	Employed through Campus Selection	0	0	0	11
	Other than campus selection	38.59	40.36	50.00	45.15
M. Pharm.	PG to M.Phil.	0	0	0	0
	PG to Ph.D	NA	4.55	3.50	5.13
	Employed through Campus Selection	0	0	0	6
	Other than campus selection	NA	36	50	45
B.D.S.	UG to PG	25	35	30	30
	Employed through Campus Selection	0	0	0	0
	Other than campus selection	60	45	40	45
M.B.A.	PG to M.Phil.	0	0	0	0
	PG to Ph.D	0	0	0	1.66
	Employed through Campus Selection	46.33	59.66	52.33	61.20
	Other than campus selection	50.20	34.00	32.10	32.41

M.C.A.	PG to M.Phil.	0	0	0	0
	PG to Ph.D	1.86	0	0	0
	Employed through Campus Selection	35.23	41.49	46.47	53.12
	Other than campus selection	56.20	51.15	49.10	45.25

**5.2.2 What is the programme-wise completion rate during the time span stipulated by the university?**

Name of the Programme	Completion rate (%) of last Pass out batch			
	Technology	Pharmacy	Dental	MIS
UG	99.61	91.89	100	NA
PG	97.26	100	100	97.87

**5.2.3 What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defence, Civil Services, etc.?**

Number of students who qualified in different competitive examinations in last five years

Name of the examination	No of students qualified	Name of the examination	No of students qualified
UGC-NET	15	NON GPAT	02
SLET	14	NIPER	01
CAT	48	IELTS	56
GRE	176	Gujarat Forensic Science Uni. Entrance	03
TOEFL	153		
GATE	255		
GPAT	12		

**5.2.4 Provide category-wise details regarding the number of Ph.D./ D.Litt./D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years.**

Year	Ph.D Thesis			
	Submitted	Accepted	Resubmitted	Rejected
2011-12	04	04	00	00
2012-13	09	09	00	00
2013-14	05	05	00	00
2014-15	15	15	00	00

### 5.3 Student Participation and Activities

#### 5.3.1 List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation

Sports and Cultural activities are planned and celebrated on regular basis. The extracurricular and cultural activities are celebrated in the month of March every year under the banner of Felicific. Various cultural and technical events are carried out both at the department level and central level. Students from other universities also participate in the events. University sports day is also celebrated every year where students participate in various sports. Students also participate in the external sports events organized by other universities/organizations.

#### Student Participation in Sports

Sr. No.	Name of the Tournament	Participation of Students			
		2011-12	2012-13	2013-14	2014-15
1	Intra University Tournaments	888	729	1447	978
2	All India Inter University Tournaments	01	03	14	01
3	Others	01	02	01	45
<b>Total</b>		890	734	1462	1014

#### Student Participation in Cultural and extracurricular activities

Name of the Event	Participation of Students				
	2010-11	2011-12	2012-13	2013-14	2014-15
University Techno- Cultural event - Felicific	1221	449	565	1502	767

#### 5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. during the last four years.

#### Student achievements in Co-curricular, extra-curricular and Cultural activities at different levels

Level	Details of the Event	Achievement of Students				
		2010-11	2011-12	2012-13	2013-14	2014-15
University	Cultural	780	545	638	742	735
	Co-Curricular Activities	550	480	350	412	390
State	Cultural	35	28	42	33	45
	Co-Curricular Activities	15	12	15	9	17

**5.3.3 Does the university conduct special drives / campaigns for students to promote heritage consciousness?**

**Yes**

Campaigns are frequently arranged to inculcate the cultural values and awareness amongst the students. To name few of them, Rani-ki-Vav -Patan, Sardar Patel Memorial-Karamsad, Kachh and Nadiad have been visited recently. The material and photograph of the visited sites are also exhibited to propagate the same to others.

**5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/ materials brought out by the students during the last four academic sessions.**

- DDU promotes the publication of students material in various forms
- DDU Connect is a student's magazine published by students
- Exhibitions are organized to showcase the photographs captured by "Shutterbugs"- a student's club for photography
- All the publications related to the event Felicific, like Posters, Banners, Souvenir, Cardboards etc. are prepared by students. The event is organised every year to provide a platform to students to showcase their technical and cultural abilities

**5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.**

**No**

**5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.**

- The university promotes and encourages students' involvement in various academic and administrative bodies.
- Felicific, a national level cultural and technical event organized every year is entirely organised by students under the guidance of the faculties. Various students committees like Publication Committee, Finance committee, Web designing committee etc. are formed to carry out several tasks effectively.
- Committees like IQAC and Anti-ragging committee have also students' representatives.



## **CRITERION VI - GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **6.1 Institutional Vision and Leadership**

#### **6.1.1 State the vision and the mission of the university.**

##### **DDU Vision**

- To become multidisciplined & learner-oriented University
- To closely associate with & responsive to industry
- To create supportive & caring environment for staff and students
- To improve R & D activities in areas of national priority

##### **DDU Mission**

Dharmsinh Desai University shall undertake programmes & projects for development of human resources, both through formal & non formal delivery systems, in areas of professional pursuits in all walks of human endeavors with accent on relevance, value addition, societal needs and futuristic pilot projects.

#### **6.1.2 Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?**

**Yes.**

The Mission and Vision statement of University are uniquely and enunciatively describe the character and strength of the University. They address the needs of the society, students, institution traditions, value orientation and vision for the future.

The University is addressing the need of society by providing the best human resource to industry as well as society. Apart from formal education the university also stresses the nurturance of values. The University is having sound academic systems which contribute to the needs of Society and also undertakes consultancy and research.

The University is unwavering in its commitment to create and sustain an ambience in the campus that is most conducive to learning, an ambience that will facilitate full blossoming of the innate potential of the students and development of their personality.

The University designs the courses and continuously reviews and updates the curricula so as to bring them in line with the rapid advancements taking place worldwide.

Moreover, the multidisciplinary character of the University facilitates synergy among different disciplines, enabling each to derive maximum benefit from the expertise of others, and successfully carry forward its programmes in the shortest possible time with efficiency and economy.

### **6.1.3 How is the leadership involved**

**\*in ensuring the organization's management system development, implementation and continuous improvement?**

**\*in interacting with its stakeholders?**

DDU conducts meetings with its stakeholders and take their input towards improvements in the academic systems, administrative systems. Following meetings are conducted regularly.

- Head of the department meets with faculties and staff members regularly in departmental meeting. Any major decision is taken by concern of all the faculty members
- Every department having student counselor and students easily approach them for any difficulty
- Board of Studies and Academic Council meeting is held every six months.
- Respective deans of faculty meets regularly with heads of department
- Alumni meeting is held yearly and they provide fellowship for travel grant to students, hence alumni also interacting with students

**\*in reinforcing a culture of excellence?**

- Excellence for DDU is constantly improving its academics, research, consultancy and updating its curriculum as per the needs of the society and industry. Visits to industry, talks by industry experts, annual techfest and other co-curricular activities promote research to help students and faculties in their academic growth. To build culture of excellence top management interacts and motivates students and members both formally and informally
- All the processes at the University are compliant to ISO:9001-2008 and are subject to internal and external audits which leads to a culture of excellence.

**\*in identifying organizational needs and striving to fulfill them?**

- Academic requirements of various departments are discussed in board of studies and respective suggestions all discuss with academic council meetings.
- Formal mechanisms are in place to bring to the top management the needs of various departments in terms of purchase of new equipments, repair and maintenance of existing equipments, maintenance and improvement in infrastructure/facilities etc. through ISO: 9001:2008 systems.

### **6.1.4 Were any of the top leadership positions of the university vacant for more than a year? If so, state the reasons.**

**Yes.**

In the past post of full professors and Associate Professors in various departments were vacant due to non-availability of suitable candidates and reservation policy. The post of Registrar at DDU remained vacant for more than a year due to lack of suitable candidates despite repeated advertisement. Alternate arrangements were made to ensure that the University administration does not get affected by giving charge to Dean/Examination of Controller who looks after the responsibilities of vacant position. Currently this position has been filled up.



Few Grant-in-aid posts are vacant because of procedural delay from State Government.

**6.1.5 Does the university ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?**

All statutory bodies like: Board of Governors, Academic Council and also Research Advisory Board, Faculty and Boards of Studies meet regularly as per the University norms. All positions in statutory bodies are filled.

**6.1.6 Does the university promote a culture of participative management? If yes, indicate the levels of participative management.**

**Yes.**

The university promotes and believes in participative management. All Statutory bodies of the University like BOG, Academic Council, and Finance Committee have members from within the university as well as external members from industry, academia and government who give advice and direction to the university affairs.

**6.1.7 Give details of the academic and administrative leadership provided by the university to its affiliated colleges and the support and encouragement given to them to become autonomous.**

Not applicable

**6.1.8 Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?**

Not Applicable.

**6.1.9 How does the university groom leadership at various levels? Give details.**

Apart from regular academic activities, all faculty members are contributing in various administrative activities like conduct of internal and external exams, orientation and convocation programs, industrial tours, placements, sports, mentors for cultural and technical events, advisors to various student chapters and clubs, institutional social responsibility, management of estate, new construction, recruitment process, purchase, liaison with regulatory bodies etc. bring out the leadership qualities of faculty members.

**6.1.10 Has the university evolved a knowledge management strategy? If yes, give details.**

The University knowledge management system function through keeping records of Under graduate reports, post graduate desertions and Ph.D. Thesis in library for ready reference. University having their own monthly news paper 'DDU Connect' where all the students' information and other happenings are regularly published. The University also maintains records of convocation address, photo in digital and printed form and selected photo is also available at University website. To foster the knowledge in interdisciplinary field the center of excellence in nano technology and automation was established.

A Central Library where students can access internet, read e-books, e-journals, NPTEL videos is available.

### **6.1.11 How the following values are reflected the functioning of the university?**

#### **\*Contributing to national development**

- The university converts the human resources into human capital by the development of skilled manpower in different fields by proper training and education along with developing work values. It not only makes people mobile but provides job opportunities in different places and areas thereby serving society at large. A large number of our alumni are industrialists, entrepreneurs and top management positions and have significantly contributed to the National Development.
- Environment Audit Cell of DDU has been approved as a Schedule-A Auditor by Government of Gujarat and is involved in carrying out environment audit of all major industries in Gujarat. It is an interdisciplinary activity between Civil & Chemical Engineering Departments.
- Department of Chemical Engineering is the Anchor Institute of Chemical and Petrochemicals in Gujarat State and has been established by the Department of Industries and Mines, GOG looking at the expertise it has. It has carried out substantive skill development programs.
- SSCSSN, DDU is closely working with industry for solving their problems in the area of Surface Science and Nanotechnology.
- Significant contribution by faculty members in FOSEE project by IITB
- R&D department of DDU has contributed in development of Face Recognition Software for and is being used nationally. They have also contributed to Moon Mission – Chandrayan and Mars Mission. Faculty of Dental Sciences is providing dental treatment with state of art facility at subsidized rates. It also has an Oral Cancer Center where patients suffering from cancer of mouth are treated at nominal rates. Also free dental checkup camps are conducted in Kheda District.
- DDU has adopted Village Hathi ni Muvadi in the vicinity of Nadiad and taking care of their social, Medical and Dental needs.
- DDU has in pipeline to come up with Faculty of Medical Sciences and Research Hospital to cater to the need of Kheda District.

#### **\*Fostering global competencies among students**

- Holding of International conferences and lectures given by international visitors on the campus have provided holistic understanding to students on International education and research related activity
- Alumni who are settled abroad talk to our students when they visit us and share their work experience and knowledge.

#### **\*Inculcating a sound value system among students**

- Dignity of labour and good work ethics is inculcated in the students.
- Spandan is a student group involved in carrying out social welfare activities which promotes altruism and compassion in them. Blood Donation Camps, Visit to Remand Homes and Old Age Home, help during national disasters are some of the activities they carry out. They were instrumental in organizing the eye pledge donation by university students by which a Guinness World Record was created.

### **\*Promoting use of technology**

- DDU multimedia hall and seminar halls are well equipped with quality sound system and projectors,
- Classrooms also have projection facilities.
- Library uses automated bar code system and software based record keeping system
- Our centers of excellence promote the latest technology solutions.

### **\*Quest for excellence**

- DDU's pursuit of excellence is dynamic process and faculty members are always motivated to find an opportunity for carrying out state of art research. SSCSSN, COE in Automation Technologies and R & D Center are a result of this.
- DDU has opted for ISO certification for quality monitoring system
- DDU organizes several conferences, seminars, workshops, training programs and expert lectures in its quest for excellence.

## **6.2 Strategy Development and Deployment**

### **6.2.1 Does the university have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?**

DD University prepares strategic development plan with the help of all the stake holders. The top management has created following objectives included in strategic plan

1. Continuous improvement in teaching.
2. Constant up gradation of course contents of all subjects, in all semesters, in all disciplines.
3. Faculty Development.
4. Student Development.
5. Improvement in Infrastructure.
6. Increasing student strength & setting up facility for higher education in existing disciplines.
7. Expanding teaching in other disciplines.
8. Increase in quantum and areas of consultation, certification and Research and Development assignments.
9. Service to community in various areas in which D D University has necessary expertise/ capacity.

### **\*Vision and mission**

The University has Vision and Mission statement emphasize not only providing quality education and prepare human resource for the society but value oriented good citizen for the society. Dharmsinh Desai University derives its inherent strength from Discipline, Dedication, Integrity and total commitment to education

Being multidisciplinary University recently laid foundation stone of Medical faculty to start MBBS program from the year 2017-18 in addition to Engineering, Dental, Pharmacy and Management.

### **\*Teaching and learning**

In DDU teaching and learning process is continuous and it follows the academic calendar. Objective of teaching learning process are:

- To impart quality technical education to the students
- To provide state of art facility to the students
- To provide for skill development of the students
- To revise curriculum as per the industrial needs.

The objective is achieved by following strategic initiatives:

- Teaching plan as per syllabus and examination pattern of DDU. Teaching plans are prepared for a year and it is documented as per ISO. The teaching – learning process is facilitated through qualified, trained and experienced faculty.
- Apart from class-room teaching, students are encouraged to use library and internet facilities.
- The effectiveness of teaching – learning process is reviewed on regular basis. The inputs for such review may be from: Students’ feedback , Results of internal tests
- To organized various training courses for in-house skill development of students
- In BOS and academic council industry experts are the members hence during the syllabus revision members are taking their inputs.

### **\*Research and development**

DDU provides research environment to PG students and research scholars and create cultural for industrial and academic research

- To do academic and industrial research there is provision of full time one year research project for PG programs for students and full time PhD program as well as part time PhD program
- To establish center of excellences
- Collaboration with reputed institute like IIT- Gandhinagar, PDP, Plasma research institute where faculty as well as students are doing collaboration projects
- Travel grant for students though alumni support and university support
- Promoting research and development by motivating faculty to submit project to various industries, DST, GUJCOST, DBT etc.

### **\*Community engagement**

Through Industrial live project at UG, PG level and internships, DDU proposes to do community driven projects and serve the society as well as industry. Through the interdisciplinary culture students also develop scientific projects, model do academic and industrial research there is provision of full time one year project Participation in Blood donation camp. R&D center of DDU has contributed in development of security software for crime branch and scientist of R&D department is closely working with research organization like PRL, ISRO and IPR.

DDU has adopted Village in the vicinity of Nadiad and taking care of their social, Medical and Dental needs. DDU has MoUs with Civil Hospital and C. G. General hospital, DDMM and Gujarat Cancer Research Centre Institute. Faculty of dental science organizing dental camps (Avg. 8-10 per Month) in Gujarat. Faculty of dental science has

established of Dr. H. M. Desai Oral Cancer Centre for the state of art treatment of Oral cancer patients free of cost.

The institution actively participates in Dental and medical Camps. Frequently, Dental camps are arranged for promoting community service. Every year approximately more than 100 Dental Camps have been organized. Apart from this, the institution conducts blood donation camp periodically. Faculty had started medical OPD for poor patients and Dr. H.M.Desai Oral Cancer Centre.

#### **\*Human resource planning and development**

The institute takes care of its human resources. Employees are given utmost importance and their needs are recognized well. The service rules are made transparent EPF. The faculty and staff are entitled with other benefits like EPF, CL, Exam leave, ML, adequate vacation, accommodation in quarters for a few faculties inside the campus, in-house Medical Store etc. The salary is credited to the salary account of the employees through ECS.

The institute encourages quality improvement programmes and deposes faculty on leave for higher education. The College has adopted a Self-Appraisal Method to evaluate the performance of the faculty in teaching, research and extension programmes. The form requires the teacher to give his/her self-evaluation of the academic, co-curricular and extra-curricular work done during that year. The Vice chancellor/Deans appreciates faculty members for their notable contribution during convocation/staff meeting/Alumni meet which also motivate other faculties.

#### **\*Industry interaction**

The industrial academic relationship is one of the key factors for professional development of students as well as faculties. Training and placement cell of DDU is regularly doing interaction with industry. During the convocation/conferences/training programs top management from industry are called to as chief guest. Students and faculty members are visiting industry during industrial visit, training/placement interaction. Special lectures by industrial personnel are arranged on a regularly basis in various students chapters like IEEE/ISA/ISTE/IICHE/ISHRAE for the benefit of the students. Industrial experts are also invited for viva-voce examinations and project evaluation for Summer Internship Projects.

#### **\*Internationalization**

DDU has signed MoU with University of IOWA for student exchange program as well as MoU with KHS Germany for final semester training in Germany.

### **6.2.2 Describe the university's internal organizational structure and decision making processes and their effectiveness.**

**Organization chart is shown in Annexure 6A**

### **6.2.3 Does the university have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?**

**Yes.**

The University has constituted IQAC for internal quality assurance and enhancement.

This is operational at University level. The head of departments, Dean of various faculties are the members of IQAC and regularly meetings are conducted for monitoring quality measures of the institution.

IQAC reports are well maintained at the University which are used to prepare AQAR and submitted to NAAC assessment committee yearly.

The University follows an ISO mechanism strictly in which various documents e.g. semester teaching plan, results analysis, research & consultancy document, training details and its feedback, student feedback records are maintained for quality assurance.

In addition to this various committees are framed to monitor and plan various activities of the University to be performed and maintain quality standard defined by the University.

**6.2.4 Does the university encourage its academic departments to function independently and autonomously and how does it ensure accountability?**

DDU has Faculty of Technology, Faculty of Dental Science, Faculty of Pharmacy and Faculty of Management & Information Sciences. All faculties enjoy responsible autonomy in terms of academic calendar, requirement of funds, research and extension activities and also maintain accountability under the guidance of Vice Chancellor and Deans of the faculty. Departments update the syllabus or make innovations in teaching pedagogy, which is guided and monitored by the concerned Board of Studies and the Academic Council.

**6.2.5 During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?**

No

**6.2.6 How does the university ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?**

The University has constituted the Students' Grievance and Redressal Committee to address, understand and resolve grievances of students.

The grievances / complaints are resolved in the university with following hierarchy.

- i. Faculty counselor of respective department
- ii. Head of the Department
- iii. Dean of respective faculty
- iv. Vice Chancellor

Powers and functions of the Student Grievances Redressal Committee shall be:

- To entertain written and signed complaints of students in respect of matters directly affecting them individually or as a group.
- To enquire into grievances and make recommendations and report to the concerned authority for redressal or suitable action.

- To recommend appropriate actions against complainant(s), if allegation made are found to be baseless.
- Grievances pertaining to the students shall be received in the office of the Dean and shall be referred to the Students' Grievances Redressal Committee.

The Students Grievance Redressal Committee shall observe the following general principles:

- Create awareness among the students about the grievances redressal mechanism.
- To the extent possible, grievances received shall be settled within a fortnight by arriving at a final decision
- As a matter of general rule, no grievances should remain pending beyond the limit of three months.

There is a Women's Cell to look after women empowerment and grievances if any. A special suggestion box with an emergency police helpline number is provided by the University for the female students and kept at various places in the University for any grievances.

A complaint box is available in the department to receive written complaints. Students are counseled at department level to address their problems.

**6.2.7 Does the university have a mechanism for analyzing student feedback on institutional performance?**

**Yes.**

Students' feedback on academic activities is taken online in every semester at departmental level and its records are maintained, corrective actions are taken for betterment of these activities. Log books are kept in libraries to review the feedback on the library activities by library committee. Feedback is also taken for central facilities like Transport, Cafeteria, Hostel, Sports etc. More facilities are added or strengthened based on the feedback by students.

**6.2.8 Does the university conduct performance audit of the various departments?**

**Yes.**

The university conducts performance audit of the various departments in the following ways:

- Heads of the Departments monitor the academic and research performance of their respective departments.
- Financial accounts of the university are monitored by the Finance Committee and Financial Advisor and also audited by an independent Chartered Accountant firm appointed by the university as per the University Act.
- The university activities are also audited by internal auditing committee and external auditors certified by ISO certifying agency

**6.2.9 What mechanisms have been evolved by the university to identify the developmental needs of its affiliated institutions?**

Not applicable

**6.2.10 Does the university have a vibrant College Development Council (CDC) / Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.**

Not applicable

**6.3 Faculty Empowerment Strategies**

**6.3.1 What efforts have been made to enhance the professional development of teaching and non-teaching staff?**

The Head of Departments identify and documents the need of training and development at the beginning of the year and encourage the teaching and non-teaching staff to take participation in training programs either inhouse or outside.

Faculty is given various opportunities to take part in developmental activities like Conferences, Seminars etc. at national & International levels. These are funded by the University. Faculty is also encouraged to conduct Conferences, Seminars and Workshops in the University. If there are shortfalls in the budget in arranging such functions, the University may fill the short falls. Those faculty members, who take part in such activities are also provided special leave.

The institution has policy of encouraging professional development of faculty and supporting staff listed below:

- Members of the faculty are encouraged to be member of professional society like IDA, DPS, IPS, IMA, ISTE, ISA, IEEE and other professional bodies.
- To upgrade the skills of the faculty, the management of the institution encourages its people to register for higher studies like PhD and M.Tech.
- The teaching and non teaching staff are provided training program through conduction of regular workshops, seminars and conferences.

**6.3.2 What is the outcome of the review of various appraisal methods used by the university? List the important decisions.**

- Feedback taken from students for a course delivery is also positively discussed with individual faculty to achieve better results. An employee annual appraisal is analyzed and accordingly incentives are also offered to employee for further growth where applicable.
- Under IQAC performance based appraisal system is adopted for career advancement scheme.

**6.3.3 What are the welfare schemes available for teaching and nonteaching staff?**

Followings are welfare schemes:

- The University facilitates the upgrading of skills of faculty.
- Credit Society for faculty and staff members of the University provides subsidized loans with interest rates lesser than prevailing in banks.
- Free health checkup camps are regularly organized by University
- Department of dental science provides subsidize dental treatment for the University staff members



- University provides subsidies fees to promote higher education like M.Tech/Ph.D for University staff members.
- Promoting faculties for higher education along with load relaxation (in house M. Tech/Ph.D.)

**6.3.4 What are the measures taken by the University for attracting and retaining eminent faculty?**

The University identifies thrust areas in each discipline and create platform to attract eminent faculty members like Prof D O Shah in Nano technology from USA, Prof Tulsi Mukarjee, ex. Director, BARC and Senior Professor, Homi Bhabha National Institute, Dr Sadiq Rafiqe former Director IHM etc in their expertise field.

The University provides a conducive environment for the work, i.e. for research, teaching, administrative work and co-curricular and extra-curricular activities, apart from social service and community service. This provides outlets for the talent of the faculty as well as reveals the hidden talents or talents unknown to the persons themselves.

Following measures are taken by the faculty for attracting and retaining eminent faculty.

- Transparent Administration
- Transport Facility
- Benefits Like EPF, Leaves, and Vacation
- Benefits of sponsorship for attending the various CDE programmes organized by other institutions and research organizations
- Grievance Redressal System

**6.3.5 Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.**

No.

**6.3.6 Does the university conduct any gender sensitization programmes for its faculty?**

The gender composition in the University is well-balanced among teaching and non-teaching staff as well as research scholars and PG students. Among the students and research scholars it is seen that women outnumber men. The University with its age old values of respect and due consideration for women has not had single women harassment Complaint in the last Five years. Nevertheless the University has constituted a “Women Cell” to oversee complaints regarding any kind of harassment of women.

The Institute believes in equal status to the gender and hence no such discrimination is made for the faculty as well as the students. But along with that, we do conduct awareness programs on International Women day like save girl child, talks on safety issues of female students and employees, under the banner of Women Cell activities.

The University provides admission through centralized admission committee of the state government and provides tuition fee waiver for the girls as per Government of Gujarat norms. The University has stress free environment for the girls. Every student is trained to stay in discipline. Again there is no discrimination based on gender. The criteria for selection are merit and competence.

### **6.3.7 What is the impact of the University's Academic Staff College Programmes in enhancing the competencies of the university faculty?**

Some faculty have availed refresher and orientation programmes of Academic Staff Colleges and have come back rich in experience and knowledge. Faculty is also sent on training programmes and workshop for capacity building. Faculty members are also encouraged to organize various in-house training programs.

## **6.4 Financial Management and Resource Mobilization**

### **6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?**

DDU has been established as the State University under section 2(f) and 12(B) of the UGC Act, 1956. It also comes under the Gujarat Government Gazette (Gujarat Act No. 16 of 2005). The finance committee of the University consists of the following members:

1. The Vice-Chancellor of the University ex-officio shall be the Chairman of the committee
2. One member of the Board to be nominated by the President
3. One Dean of the University by rotation to be nominated by the Vice-Chancellor
4. One expert to be nominated by the President and
5. The Registrar shall be the nonmember secretary of the Committee:

The Finance Committee is empowered as an authority to look after the Finance and Accounts of the University. It examines the annual accounts and annual budget estimates of the university and recommend to the Board. It also reviews the financial position of the university from time to time. FC also makes recommendations to the Board on all proposals involving raising of funds, receipts and expenditures

### **6.4.2 Does the university have a mechanism for internal and external audit? Give details.**

**Yes.**

The University has a mechanism for Internal and Statutory Audit by an Independent Chartered Accountant Firms. Their details are as follows:

1. Internal Auditors – M/s Ravi Shah & Co (Chartered Accountants), Nadiad
2. Statutory Auditors and Tax Consultants – M/s Vipinchandra C. Shah & Co (Chartered Accountants), Nadiad.

### **6.4.3 Are the institution's accounts audited regularly? Have there been any major audit objections, if so, how were they addressed.**

**Yes.**

The Annual Accounts of the University are regularly audited since its establishment by an Independent Chartered Accountant firm.

There were no major audit objections; the observations from auditors have been complied. The income and expenditure statement for the FY 2014-15 is attached herewith as **Annexure 6B**.

#### **6.4.4 Provide the audited income and expenditure statement of academic and administrative activities of the last four years.**

The following audited income and expenditure statements are attached herewith as Annexure;

- 1) Statement for FY 2014-15 (Annexure 6B)
- 2) Statement for FY 2013-14 (Annexure 6C)
- 3) Statement for FY 2012-13 (Annexure 6D)
- 4) Statement for FY 2011-12 (Annexure 6E)

#### **6.4.5 Narrate the efforts taken by the university for resource mobilization.**

The faculties of University are encouraged through our research initiative programs to mobilize resources for research activities and strengthening the University facilities by applying to various funding agencies such as DST, UGC, GUJCOST, BRFSST, ICSSR, etc.

The outcome of this initiative is that the university has received following projects as research grants.

<b>Sr. No.</b>	<b>Project details/ funding agency details</b>	<b>Funds ( Lacs)</b>
1	Minor Research Project	498.52
2	Major research Projects	096.55
3	R& D Projects DST	080.75
4	R& D Projects PLANEX-PRL -1	038.70
5	R& D Projects PLANEX-PRL -2	032.18
6	R& D Projects IEDC-DST (4 projects)	003.83
7	Industry funds from Nano center( IFM- IAB)	482.50
8	Govt of Gujarat Industries and mines	343.67
9	Anchor Institute - GoG	505.82
	<b>Total</b>	<b>2082.52</b>

#### **Recognition as SIRO**

Government of India, Ministry of Science and Technology, Department of Scientific and Industrial Research has accorded recognition to DDU as Scientific and Industrial Research Organization (SIRO). On receiving this recognition, DDU is entitled to all administrative support from the Ministry of Science and Technology (DSIR), as may be required on all issues to promote or encourage scientific research activities. Also the University will be entitled to avail custom / excise duty exemption on the import of equipments, instruments, spares thereof, consumables etc.

Recognition as Scientific Research Institution by Department of Revenue, Ministry of Finance, Government of India under Section 35(1)(ii) on the donations/ grants received for scientific research activities done by its faculty members and students.

On receiving this approval all the donors who will contribute for the purpose of Scientific Research Activities at DDU will be eligible for a deduction of the amount equal to one

and three-fourth times (175%) of the donation/grant received in DDU for undertaking Scientific Research under section 35(1) (ii) of Income Tax Act 1961 read with rule 5(C) & 5(E) of Income Tax Act 1962.

The University has also obtained 100% exemption under Sec. 80G as per the Income Tax Act to supplement the objective of resource mobilization.

#### **6.4.6 Is there any provision for the university to create a corpus fund?**

**Yes.**

The University has provision for corpus fund (FY 2014-15 : INR 55 lac)

### **6.5 Internal Quality Assurance System**

#### **6.5.1 Does the university conduct an academic audit of its departments? If yes, give details.**

**Yes.**

The university has constituted IQAC which internally brainstorms on quality enhancement in all academic endeavors and submit annual reports. Under the IQAC there is provision of academic audit of entire university. The ISO mechanism for quality control of all academic parameters exist since inception so under IQAC this mechanism was strengthened and conducts academic audit twice in a year. There are various committees which help in maintaining in academic and administrative quality standards.

#### **6.5.2 Based on the recommendations of the academic audit, what specific measures have been taken by the university to improve teaching, learning and evaluation?**

After the academic audit following constructive initiatives are taken by the university to improve academic environment:

- Each faculty member prepares a teaching plan about the details of teaching learning process in the ensuing semester.
- ICT facilities are upgraded and added to provide excellent academic infrastructure for improving teaching, learning and evaluation.
- Laboratories are augmented with latest instruments.
- Joint research projects are initiated with the industry.
- Libraries are updated with new books and journals.
- Curriculum is made more relevant to the contemporary requirements

#### **6.5.3 Is there a central body within the university to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

- The University maintains IQAC under which various committees are there to continuously monitor teaching learning process

The University has following committees:

1. Internal Coordination Committee
2. Community Development Committee
3. Research Committee
4. Student Welfare Committee
5. Anti Ragging Committee
6. Anti Ragging Squads
7. Disadvantaged Groups' welfare committee
8. Grievances Committee
9. Women Cell
10. Faculty Development Cell
11. Class Mentoring Cell
12. Alumni Association
13. Parent Association

- All the parameters of teaching learning like session plan, syllabus updating, student feedback, training, Infrastructural facility, work load distribution, research and project grants, participation in extra curriculum activities etc., have been monitored with the ISO mechanism. The ISO audit was carried out by internal auditors as well as external agency.
- The University announces Convocation date to newly admitted students on the first day of their study. We are practicing this system since 1991 (Then Only Autonomous Institute of Gujarat State). Examinations are conducted regularly on time without change in schedule (except unavoidable circumstances like natural disaster etc.).
- The University has clearly defined hierarchical structure for each faculty.

The major functions of the various committees :

<b>Sr. No.</b>	<b>Name of Committee/Activity</b>	<b>Level</b>	<b>Function of committee</b>
1.	Internal Quality Assurance Cell (IQAC)	Univ.	Monitor different Quality Initiatives such academic audits, FD schemes, students performance etc.
2.	Internal Coordination Committee.	Univ.	To work where interdepartmental coordination is required. To coordinate between different institutes of the universities for co-curricular and extra-curricular activities.
3.	Community Development Committee	Univ./ Faculty	To Plan, overview and monitor the social responsibility & community services including Blood Donation, NSS activities, camps in nearby villages etc.
4.	Research Committee	Faculty	To coordinate research activities in the Univ. including dissemination of research grants/ research projects from DST etc.
5.	Student Welfare Committee	Univ.	To perform functions of Dean-Students' Welfare

6.	Anti Ragging committee	Univ./ Faculty	To overview and ensure that there is no ragging on the campus including hostels (inside & outside) and transportation of Univ.
7.	Anti Ragging Squads	Faculty/ Dept.	Squads to perform functions of the above committee
8.	Disadvantaged Groups' welfare committee	Univ.	To look for special schemes and facilities for SC/ ST and differently able people
9.	Grievances Committee	Univ.	To resolve the grievances, if any, on the campus
10.	Women Cell	Univ.	For special care of women on the campus – their welfare, grievances & other activities.
11.	Faculty Development Cell	Univ.	To formulate schemes for faculty development including STC, Conference, Training etc.
12.	Class Mentoring Cells	Dept.	For counseling of a group of students including slow learners implementing schemes for them
13.	Alumni Association	Univ.	For the reunion of alumni and related activities.
14.	Parent Association	Univ.	Forum of select parents and Univ. representatives for interaction and feedback.

#### **6.5.4 How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

The university quality system is made operational under the IQAC. The approach taken is bottom up where quality parameters are suggested by faculty members and then implemented by the department and university, thus, bringing a sense of ownership in quality enhancement.

All stakeholders are involved in the continuous quest for quality enhancement. Quality enhancement initiatives like conducting seminars and training program are facilitated by the IQAC. Each faculty and consequently each department is advised to conduct its own academic activity, which brings synergic approach for development of university.

#### **6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the university for implementation?**

All reports of IQAC are placed before the Board of Governors for considerations.

Academic Council also provides inputs on the quality initiatives suggested by IQAC. Following initiatives are placed:

- Choice Based Credit System is implemented from the year 2016-17 in UG programs.
- Exam reforms are implemented and Absolute Grading pattern is implemented for transparency and academic rigor.
- RPC-Research Progress committee for PhD work constitution has been amended to include external experts during periodical review.
- Mandatory publication from PG/Ph D dissertation to inculcate research skills in the students.

**6.5.6 Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

External Members on Quality Management/Industry/Local Community

- i. Honorable Collector Nadiad
- ii. District Superintendent of Police
- iii. Shri Yatindra Sharma – President, Alumni Association, KHS Machinery Pvt. Ltd., Ahmedabad.
- iv. Prof D M Pestonjee – Ex Professor, IIMA
- v. Shri Jaimin Shah, Director, Dev Information technology Pvt. Ltd., Ahmedabad.

**6.5.7 Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

No specific study for disadvantaged section but IQAC monitors the Scholarship and other benefits specially designed for disadvantaged group and also monitor implementation of that schemes. The Remedial and tutorial classes for the slow learner, not for specific sections but for all needy students

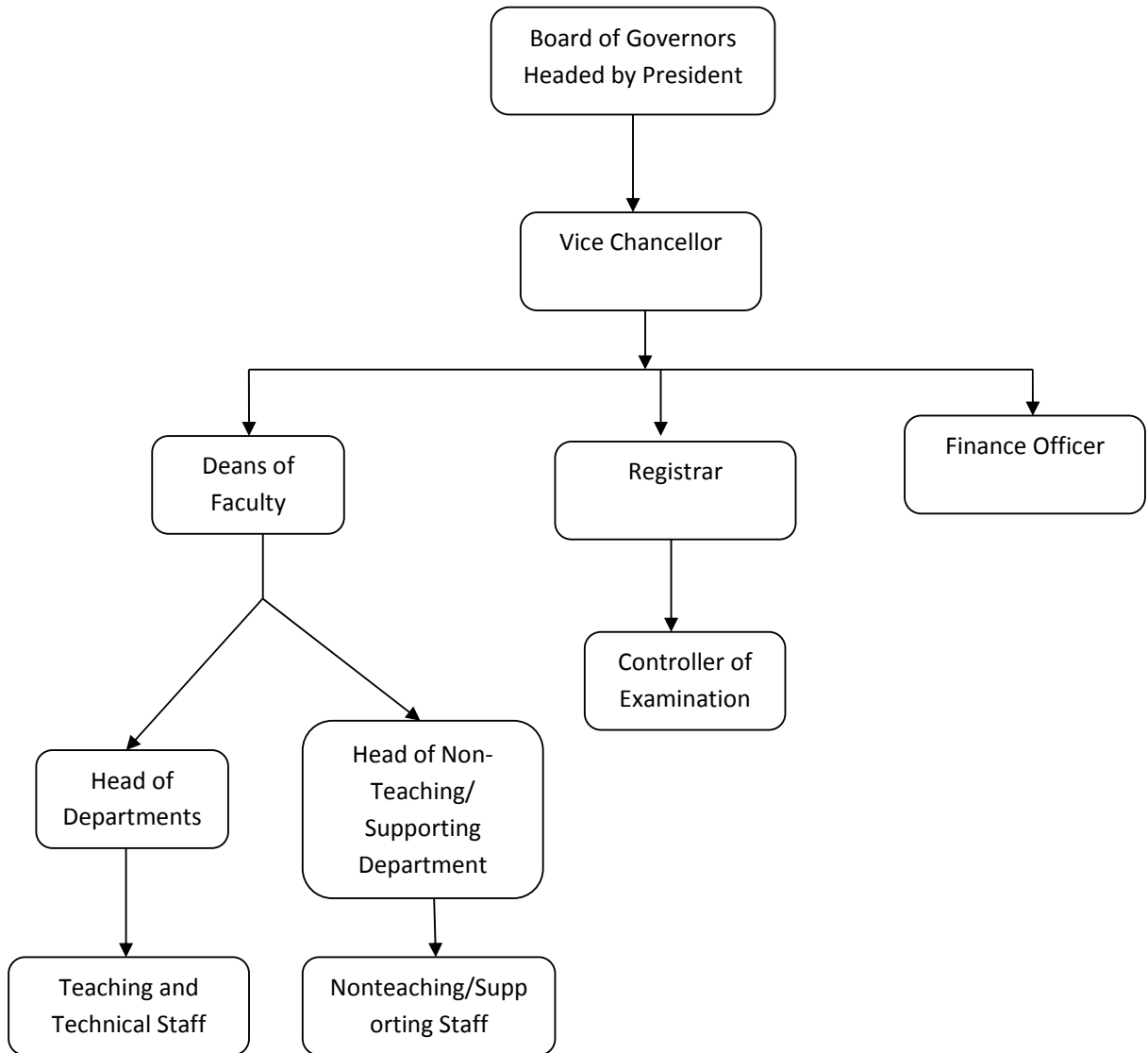
**6.5.8 What policies are in place for the periodic review of administrative and academic departments, subject areas, research centers, etc.?**

- Twice in a year academic audit conducted to review administrative and academic activities of the departments.
- To review teaching learning process and development of curricula periodically Boards of Study and Academic Council act as statutory bodies.
- Finance committee examines annual accounts, annual budget estimation and financial position of the university.
- The Board of Governors (BOG) approves all the proposals and initiatives towards research and development strategies at the university and offers its inputs on all broad areas of development and internal quality enhancement.
- Centres of Excellence and Research Centres are having Steering Committee to review the progress and advancement.
- Consultancy policy of the university guides the consultancy initiatives by university faculty and provides norms and regulations for consultancy projects implementation.
- DDU has created a policy structure to fulfill the norms, rules and regulation and policy requirements of national statutory bodies like: UGC and AICTE





**ANNEXURE 6A  
Organization Chart**



**ANNEXURE 6B**  
**Income and Expenditure statement for FY 2014-15**

VIPNCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

134, Santram Super Market  
Near Laxmi Cinema  
Nadiad : 387 001

**AUDITORS REPORT**

We have audited the attached Balance sheet of M/S. DHARMSINH DESAI UNIVERSITY at 31st March 2015 and Income and Expenditure Account for the year ended on that date, annexed thereto and report that :

Attention is invited to Notes on Accounts and Accounting Policies in the Accounts.

Subject to the above, we report that :

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) In our opinion, proper books of accounts have been kept by the university so far as appears from our examination of the books.
- (c) The Balance Sheet dealt with by this report is in accordance with the Books of Accounts.
- (d) In our opinion and to the best of our information and according to the explanations given to us the Balance Sheet gives a true and fair view of the state of affairs of the University as at 31st March, 2015

For VIPINCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

PLACE : NADIAD

DATED : 22nd SEPTEMBER. 2015

  
(V.C.SHAH)  
PROPRIETOR



DHARMSINH DESAI UNIVERSITY  
INCOME AND EXPENDITURE ACCOUNT FOR THE  
YEAR ENDED ON 31ST MARCH, 2015

INCOME

By Rent (accrued/realised)		-
By Interest (accrued/realised)		
On Securities (On Fixed Deposits)	35,599,295	
On Bank Account	-	35,599,295
By Donations in cash or kind		-
By Grants		145,236,735
By Income from other sources (in details as far as possible)		527,048,020
By Transfer from Reserve		
By Deficit for the year carried to Balance Sheet		-
Total Rs :		707,884,050

EXPENSES

To Expenditure in respect of properties :		
Rates, Taxes, Cesses	-	
Repairs and maintenance	-	
Salaries	-	
Insurance	-	
Depreciation (by way of provision/or adjustment)	-	
Electricity charges	-	
Water charges	-	
		-
To Establishment expenses		-
To Remuneration to trustee		-
To Remuneration in case of a each) to the head of the each, including his household expenditure, if any.		-
To Contribution to Charity commissioner		-
C/o :		-

	B/f :	-
To Audit Fees		-
To Contribution and Fees		-
To Amount written off :		
Bad debts	-	
Loan scholarship	-	
Irrecoverable rents	-	
Other items	-	
	<hr/>	-
To Salary expenses		-
To Depreciation		62,414,614
To Amounts transferred to Reserve or Specific Funds		-
To Transferred to Building Fund		-
To Expenditure on objects of the trust :		
Religious	-	
Educational	556,665,461	
Medical relief	-	
Relief to poor	-	
Other charitable objects	-	
	<hr/>	556,665,461
To Surplus carried over to Balance Sheet		88,803,975
	Total Rs :	<hr/> <hr/> <u>707,884,050</u>

AS PER REPORT OF EVEN DATE  
FOR VIPINCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

FOR DHARMSINH DESAI UNIVERSITY

*V.C. Shah*  
(V.C. SHAH)  
PROPRIETOR

*P. Desai*  
VICE CHANCELLOR

*A. Desai*  
TRUSTEE

PLACE : NADIAD  
DATED : 22nd SEPTEMBER. 2015

**ANNEXURE 6C**  
**Income and Expenditure statement for FY 2013-14**

VIPINCHANDRA C SHAH & CO  
CHARTERED ACCOUNTANTS

134, Santram Super Market,  
Near Laxmi Cinema  
Nadiad-387001

AUDITORS REPORT


We have audited the attached Balance sheet of M/S.DHARMSINH DESAI UNIVERSITY at 31 st March 2014 and Income and Expenditure Account for the year ended on that date, annexed thereto and report that:

Attention is invited to Notes on Accounts and Accounting Policies in the Accounts.

Subject to the above, we report that:

- (a) We have obtained all the information and explanation which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) In our opinion, proper books of accounts have been kept by the university So far as appears from our examination of the books,
- (c) The Balance Sheet Dealt with by this report is in accordance with the Books of Accounts.
- (d) In Our opinion and to the best of our information and according to the explanation given to us the Balance Sheet read with Notes therein gives a true and fair of the state of affairs of the University as at 31 st March 2014

For VIPINCHANDRA C SHAH & CO  
CHARTERED ACCOUNTANTS

  
(V.C.SHAH)  
PROPRIETOR

PLACE-NADIAD  
DATED- 23/5/14



DHARMSINH DESAI UNIVERSITY  
INCOME AND EXPENDITURE ACCOUNT FOR THE  
YEAR ENDED ON 31ST MARCH, 2014

INCOME

By Rent (accrued/realised)		-
By Interest (accrued/realised)		
On Securities (On Fixed Deposits)	36,816,491	
On Bank Account	-	36,816,491
By Donations in cash or kind		-
By Grants		74,611,704
By Income from other sources (in details as far as possible)		569,394,027
By Transfer from Reserve		-
By Deficit for the year carried to Balance Sheet		-
Total Rs :		680,822,222

EXPENSES


To Expenditure in respect of properties :		
Rates, Taxes, Cesses	-	
Repairs and maintenance	-	
Salaries	-	
Insurance	-	
Depreciation (by way of provision/or adjustment)	-	
Electricity charges	-	
Water charges	-	
		-
To Establishment expenses		-
To Remuneration to trustee		-
To Remuneration in case of a each) to the head of the each, including his household expenditure, if any.		-
To Contribution to Charity commissioner		-
		-
	C/o :	-



	B/f :	-
To Audit Fees		-
To Contribution and Fees		-
To Amount written off :		
Bad debts	-	
Loan scholarship	-	
Irrecoverable rents	-	
Other items	-	
	<hr/>	-
To Salary expenses		-
To Depreciation		58,694,297
To Amounts transferred to Reserve or Specific Funds		-
To Trasfered to Building Fund		-
To Expenditure on objects of the trust :		
Religious	-	
Educational	504,978,448	
Medical relief	-	
Relief to poor	-	
Other charitable objects	-	
	<hr/>	504,978,448
To Surplus carried over to Balance Sheet		117,149,477
	Total Rs :	<hr/> <hr/> 680,822,222

AS PER REPORT OF EVEN DATE  
FOR VIPINCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

FOR DHARMSINH DESAI UNIVERSITY

  
(V.C. SHAH)  
PROPRIETOR

  
VICE CHANCELLOR

  
TRUSTEE

PLACE : NADIAD  
DATED : 23rd May, 2014



## ANNEXURE 6D

### Income and Expenditure statement for FY 2012-13

VIPNCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

134, Santram Super Market  
Near Laxmi Cinema  
Nadiad : 387 001

#### AUDITORS REPORT

We have audited the attached Balance sheet of M/S. DHARMSINH DESAI UNIVERSITY at 31st March 2013 and Income and Expenditure Account for the year ended on that date, annexed thereto and report that :

Attention is invited to Notes on Accounts and Accounting Policies in the Accounts.

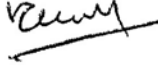
Subject to the above, we report that :

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) In our opinion, proper books of accounts have been kept by the university so far as appears from our examination of the books.
- (c) The Balance Sheet dealt with by this report is in accordance with the Books of Accounts.
- (d) In our opinion and to the best of our information and according to the explanations given to us the Balance Sheet read with Notes thereon gives a true and fair view of the state of affairs of the University as at 31st March, 2013

For VIPINCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

**PLACE : NADIAD**

**DATED : 8TH JUNE, 2013**

  
(V.C.SHAH)  
PROPRIETOR





DHARMSINH DESAI UNIVERSITY  
 INCOME AND EXPENDITURE ACCOUNT FOR THE  
 YEAR ENDED ON 31ST MARCH, 2013

(Continued)

INCOME

By Rent (accrued/realised)		-
By Interest (accrued/realised)		
On Securities (On Fixed Deposits)	30,468,716	
On Bank Account	-	30,468,716
By Donations in cash or kind		-
By Grants		79,734,140
By Income from other sources (in details as far as possible)		519,789,825
By Transfer from Reserve		-
By Deficit for the year carried to Balance Sheet		-
Total Rs :		629,992,681

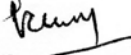
EXPENSES

To Expenditure in respect of properties :		
Rates, Taxes, Cesses	-	
Repairs and maintenance	-	
Salaries	-	
Insurance	-	
Depreciation (by way of provision/or adjustment)	-	
Electricity charges	-	
Water charges	-	
To Establishment expenses		-
To Remuneration to trustee		-
To Remuneration in case of a each) to the head of the each, including his household expenditure, if any.		-
To Contribution to Charity commissioner		-
C/o :		-

	B/f:	-
To Audit Fees		-
To Contribution and Fees		-
To Amount written off:		
Bad debts		
Loan scholarship	-	
Irrecoverable rents	-	
Other items	-	
	<hr/>	-
To Salary expenses		-
To Depreciation		50,125,004
To Amounts transferred to Reserve or Specific Funds		-
To Transferred to Building Fund		-
To Expenditure on objects of the trust:		
Religious	-	
Educational	433,433,307	
Medical relief	-	
Relief to poor	-	
Other charitable objects	-	
	<hr/>	433,433,307
To Surplus carried over to Balance Sheet		146,434,370
		<hr/>
		629,992,681
		<hr/>
	Total Rs :	

AS PER REPORT OF EVEN DATE  
FOR VIPINCHANDRA C. SHAH & CO  
CHARTERED ACCOUNTANTS

FOR DHARMSINH DESAI UNIVERSITY

  
(V.C. SHAH)  
PROPRIETOR

  
VICE CHANCELLOR

  
TRUSTEE

PLACE : NADIAD  
DATED : 8th JUNE, 2013



**ANNEXURE 6E**  
**Income and Expenditure statement for FY 2011-12**

Vipinchandra C Shah & Co  
Chartered Accountants

134, Santram Super Market  
Near Laxmi Cinema  
Nadiad-387001

**AUDITORS REPORT**


We have audited the attached Balance sheet of M/S DHARMSINH DESAI UNIVERSITY at 31<sup>st</sup> March 2012 and Income and Expenditure Account for the year ended on that date,

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) In Our opinion, proper books of accounts have been kept by the university so far as appears from our examination of the books.
- (c) The Balance Sheet dealt with by this report is in accordance with the Books of Accounts.
- (d) In our opinion and to the best of our information and according to the explanations given to us the Balance Sheet read with Notes thereon given a true and fair view of the state of affairs of the University as at 31<sup>st</sup> March, 2012

Place-Nadiad

For VIPINCHANDRA C SHAH & CO  
CHARTERED ACCOUNTANTS

DATE-20<sup>TH</sup> JUNE 2012

  
\_\_\_\_\_  
(V.C. SHAH)  
PROPRIETOR

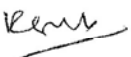


DHARMSINH DESAI UNIVERSITY  
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31ST MARCH, 2012

INCOME	SCHDEULE	Amount	Rs
Fees Income	A		165,373,224
<u>Other Income</u>			
Interest on Fixed Deposit		21,931,746	
Interest on Saving Account		57,227	
College Fine		32,279	
Insurance claim		14,910	
Miscellanoues Income		7,597,412	
Provision for expenses no longer payable written back		43,522,757	
Notice Pay Salary		347,355	73,503,686
	Total Rs :		238,876,910
<u>EXPENSES</u>			
Salary and Other Benefits	B		86,586
Administrative Expenses	C		4,674,596
Maintenance Expenses	D		114,401
Depreciation			93,450
	Total Rs :		4,969,033
Excess of Income over Expenditure transferred to Income and Expenditure Account			233,907,877

AS PER OUR REPORT OF EVEN DATE  
FOR VIPINCHANDRA C. SHAH & CO

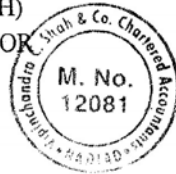
FOR DHARMSINH DESAI UNIVERSITY

  
(V.C.SHAH)  
PROPRIETOR

  
ACCOUNTANT

  
VICE CHANCELLOR

PLACE : NADIAD  
DATED : 20th JUNE, 2012



## **CRITERION VII - INNOVATIONS AND BEST PRACTICES**

### **7.1 Environment Consciousness**

#### **7.1.1 Does the university conduct a Green Audit of its campus?**

The Environmental Audit Cell of the University has been carrying out environmental audit, consultancy and design services to the industry for over 20 years now, so the University is having in-house competence to undertake this activity much better than other institutions.

The University has framed its Environmental Care Policy, and has been conducting a Green Audit of its Campus through a properly constituted Environmental Audit Committee, as a part of this Policy. The frequency of the Green Audit is annual. The Audit Committee lists the areas of concern, and the University implements its suggestions in consultation with them.

The fundamental policy tenets of Environment Consciousness are:

- Conserve
- Reduce
- Reuse
- Recycle

These tenets are ingrained in all the stakeholders of the University and are the tests for each action.

#### **7.1.2 What are the initiatives taken by the university to make the campus eco-friendly?**

##### **\* Energy conservation**

This is done through three major thrust areas:

- Proper system designs – whether of buildings or of labs, equipment etc.
  - Buildings are designed for optimum ventilation and lighting, to reduce the consumption of electricity at the design stage itself.
  - All wiring and related devices are chosen in such a manner that they protect people and property from electrical shock and fire hazards.
- Choice of appropriate hardware and devices:
  - Accessories like lights, luminaires, low-loss wiring, energy efficient motors and pumps, fans, air conditioners, water coolers etc. are chosen with the energy efficiency as a much more important criterion than the basic price, for the energy savings will someday offset the price.
  - There is great techno-commercial development in lighting. Taking advantage of that, University is going for LED lights wherever possible, and CFL where it is not.
  - Campus lighting is only on LED now.
  - All new Air Conditioners are VRV-based now.

- All new pumps are having VFD installation wherever possible.
- PFCs are being installed at the Substation.
- The University is having a large number of computers, over 500. All are now having LED monitors rather than the old CRT monitors which consumed large amounts of power.
- Best usage practices: Any system or hardware is only as good as how it is used. Realizing this, University lays especial emphasis on appropriate usage.
  - All staff and students are trained in best energy usage practices.
  - People are exhorted and motivated to minimize energy wastage wherever possible. Separate best practices are evolved for classrooms, staffrooms, offices, laboratories and different types of public areas.
  - This is done along with the effort to minimize wastage of any kind, since any wastage of materials is indirectly a wastage of energy, if not in the Campus then at least at the points of manufacture and along the logistic chain.

This is how the University conserves energy in the Campus.

**\* Use of renewable energy**

University is drawing up plans to combine the benefits of its own, large campus and various government schemes for use of renewable energy.

**\* Water harvesting**

The University is situated in Kheda district, which is having a very high water table. So the traditional water harvesting techniques are not suitable for this Campus.

However, the University has implemented for complete recycling of waste from the campus, becoming a zero-discharge entity except for storm water.

**\* Check dam construction**

This is not applicable to this University, as no water stream passes through the Campus at all.

**\* Efforts for Carbon neutrality**

The University is blessed with very fertile soil and the long-standing plantation drive has yielded such rich fruits that the Campus is the envy of many, in respect of the greenery. This has led to the balancing of any carbon gases generation with absorption of CO<sub>2</sub> within the Campus itself.

For reducing the carbon footprint, several initiatives have been taken. These include:

- Layout design of the campus, which eliminates the use of vehicles wherever possible, so that pollution is eliminated at source itself.
- Reduction in use of papers, and reliance on substitute or alternate electronic systems like email, cloud/web-based services to eliminate or reduce the use of paper by staff and students alike. For instance, even in office, the salary slips are being issued electronically and sent by email rather than paper-based salary slips issued earlier. This is just one instance.

### **\* Plantation**

In its campus of over 42 acres, the University has all kind of trees of different types of species. In addition, there are good lawns spread across the campus. Due to such lush and hospitable vegetation, many birds are sighted on the Campus.

### **\* Hazardous waste management**

Except for very negligible amounts in the Chemistry Laboratories, no hazardous waste is generated in the University Campus. This tiny amount is also handled as per the proper methods, and the Environmental Audit Cell of the University, as explained at the beginning, is monitoring this closely.

### **\* e-waste management**

Generation of e-waste is very rare, and takes place in any significant quantum only at the time of replacement of the computer systems or cabling. At the relevant time, proper care is taken as per scientific procedure under monitoring by the Environmental Audit Cell of the University.

Mostly, the devices and components are disposed of under a buy-back scheme with the vendors, who are now a part of the national e-waste management scheme, thus eliminating the headache for every stakeholder.

### **\* any other (please specify)**

Education is the major solution of most of the problems, and indeed is the basis of this University. Recognizing this fact, as well as the consequent responsibility, the University has taken the following measures:

- Introduction of a compulsory course on Environment Studies in every branch of study, providing formal education in the subject apart from general knowledge
- Awareness programmes on an ongoing basis, with the help of posters and wall slogans
- Special events like celebration of Earth Day, Van-mahotsav etc.
- Holding of Seminars and Workshops for students and staff, both teaching and non-teaching
- Holding of special lectures by experts and guests on environment-related topics
- Special suggestion scheme for staff and students for energy conservation and waste reduction

## **7.2 Innovations**

### **7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.**

The prime purpose of all innovations is to improve the TEACHING-LEARNING process. Other activities undertaken are so as to support this primary mission of this University.

Some major innovations integrated into the system are:

- Integration of the continuous evaluation system in the process, and linking with the computerized system whereby the students can see their result immediately upon its publication, from their own login ID.

- Issuance of a Pocket Calendar for the entire year at the beginning of the academic year, giving the entire programme, the dates of examination and the dates of publication of result, for every stream in the University. The date of Convocation is also announced along with, at the time of entry into the studentship itself.
- This practice has been followed for over 25 years now.
- This results in a positive pressure on faculty, students and academic staff towards punctuality, which is the most essential ingredient in a quality assurance system.

Other supporting innovations carried out by the University are:

- Use of the PPP mode for establishment of the Nanotechnology Centre, in collaboration with Government of Gujarat and industries, for undertaking major basic and applied research in the areas of nanotechnology and surface sciences.
- State Government, under its scheme of promoting some institutes as Anchor Institutes, has designated our University as the Anchor Institute for Chemical, Petrochemical and Plastic industries. Under this project, several operating personnel are trained at the Campus or off-campus.
- University has established an R & D Centre, which is doing ground-breaking research in substance detection, face identification and moon exploration. This has a cascading effect on the regular teaching-learning at the University.
- University has taken major initiatives in creating strong linkages with industry. Apart from the Nanotechnology Centre, University has also entered into collaborations with other organisations outside.
  - One example of this is the Bosch-Rexroth Centre for Excellence in Automation Technologies, funded to a very large extent by the shared-implementation mode, and carrying out cutting-edge research.
- Resource Mobilization: The University has created unique PPP model between Government, Industries and University, and established state of the art, Nano Technology Centre. Very innovative way to enhance research, teaching learning, involvement of industry in academics and help in Training and placement.

### **7.3 Best Practices**

#### **7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the university.**

1. Due to a proper system of administration of the examination section, there has been no leakage of any question paper in the entire history of the University, thereby providing an assurance to all the stakeholders – students, parents and industry – about the integrity of the University and its students.
2. Industry-Academy Linkage, helping the University in moving to the Outcome-based Learning process.

#### **PRACTICE ONE**

##### **Title of the Practice:**

Integrity and efficiency of Examination system

##### **Objectives of the Practice**

To ensure complete integrity of the Examination System, starting with the preliminaries, and focusing on the integrity of the question paper, conducting the examinations,



evaluation and publication of results. There is also the associated process of dealing with malpractices.

The University had its origins in a single-faculty affiliated college, from where it went on to become an autonomous college within its affiliating university, namely Gujarat University, in 1998. In 2004 it became a Deemed University and upon passing of the Act by Gujarat Legislature, it became a State Private University. During this time period, it added other faculties, like the Faculties of Commerce, Dental Sciences Management and Information Sciences and Pharmacy. Hence, it required a proper structure for ensuring an examination system of impeccable integrity, which alone could provide simultaneous assurance to all the stakeholders, namely the students, parents, employers, faculty and other academic institutions. This system needed to be evolved, in view of the unmatched devotion to educational quality and punctuality.

### **The Challenges in adopting the Practice**

The Challenges in adopting the Practice were many; the first and foremost being the fact that the Practice needed to be evolved. The other was that the University adopted the practice of “Lean”, meaning the use of as few people as would suit the job rather than the use of many. This was done with the clear intention of proper allocation of responsibility for design, delivery and quality of the practice and procedure.

### **The Practice**

The first point in the system is the decision, at the highest level, that the schedules for dates of all examinations and dates of all results publication must be announced in advance, and the schedule must be strictly adhered to. We are glad to report that the University has been successful in adhering to this tenet 100%, without any deviation in all these years. Till date, there has been NO case of leakage of papers in ANY examination held by the University, ever since it gained autonomy and assumed responsibility for its own affairs.

This leads to fixing of the examination process, which has two major components: fixing of the syllabus [to which minor changes are made as necessary] and selection of the examiners. While the internal examiner is normally the teacher himself/herself, the external examiner is chosen with care, after evaluation of their knowledge, experience and integrity. This ensures:

1. Foolproof question papers system, so that there is no leakage of papers, and
2. Proper evaluation of the learning of the various students.

This ensures that the results declared reflect the actual capability of the student, free from PREJUDICES and MALPRACTICES, which are the bane of any evaluation system.

The external examiners’ names are vetted by the subject teachers themselves, as also by the heads of respective departments, the Board of Studies, and finally by the Academic Council. The decision for choosing a particular examiner for a particular examination is carried out by the Controller of Examination, from the panel approved by the Academic Council, to ensure fairness and integrity.

The evaluation of papers is done centrally, and the University has constructed a fully-equipped Evaluation Hall, with CCTV cameras, and proper records system to ensure total

integrity, efficiency and transparency.

After evaluation, the results are entered into the computer database and are immediately visible to the students through the Students' Login on the University Website. This is the process for individual examinations. Cumulated, it results in a marksheet, and then the final degree. This is the process from start to finish. Since it is an integrated process, it leads to the necessary pressure on the teaching-learning process as well, to ensure the objectives of education.

### **Uniqueness in the Context of Indian Higher Education**

The importance of this practice is that many Universities are coming up, which do not have such systems to take care of academic objectives of transparency and efficiency. The practices followed by us can be used as a model and a first step in evolving in their own systems suited to their situations.

### **Constraints/ Limitations**

The constraints are mainly self-imposed: the University is very keen on adhering to the schedule pre-announced at the time of admission, which puts pressures on the people which may, in case of unforeseen circumstances, be very tight for them.

### **Evidence of Success**

The following facts are a clear indication of the success of the Practice:

1. All examinations, **without a single exception**, are conducted as per the schedule announced at the commencement of the academic year, the results are also published as per the pre-announced calendar and the Convocation is held on the pre-arranged date. This is possible ONLY if ALL the sub-processes in the entire Examination System are functioning as per design. Even if one sub-process is malfunctioning, the System would be out of gear very soon.
2. There has **NOT** been EVEN ONE INSTANCE of the leakage of question paper in the last twelve years of a continuous evaluation system, with at least 4 examinations in one term in each and every subject, perhaps even more. This is possible only if the systems and processes are foolproof.

## **PRACTICE TWO**

### **Title of the Practice**

Industry-Academy Linkage, helping the University in moving to the Outcome-based Learning process.

### **Objectives of the Practice**

All the academic streams of the University have very strong moorings in real life outside the campus. As a result, they need to have continuous up gradation reflecting the changes in the dynamic world. The objectives of the Practice are three-fold:

1. To make this linkage between the University and Industry work for the improvement in the education of the students at all levels
2. To contribute to the capacity building in the human resources of the University, the teaching and research faculty being the principal resource, and
3. To make this linkage work routinely and effectively.

### **The Context**

The context is the ever-changing world outside, with the long association of the University with the outside world, its alumni base working the world over and the excellent, state-of-the-art research and development facilities it is having, along with faculty having an industry-helpful, applications-oriented mindset.

### **The Challenges in adopting the Practice**

The principal challenge in adopting the practice was the framing of a problem which could be commonly understood and discussed on one platform and across a table between industry and academy. Some other minor challenges were the availability of the faculty and the research equipment.

### **The Practice**

The Practice has three dimensions:

1. Outreach by the University to industry, to identify the problems they are facing, which can be solved with the help of theoretical, experimental and field-work methods by the University
2. Outreach by the University to introduce new courses and even full programmes, and modify existing curriculum to reflect the requirements of skilled, trained and competent manpower by the employer world
3. Integrate the learnings from the outside world into the classroom wherever deep modifications have not been carried out to provide a flavor of the real world to the students who have had no exposure, thereby enriching their learning experience, and providing them with a context for the textbooks full of theories and abstractions.

### **Uniqueness in the Context of Indian Higher Education**

The work done by the University is unique in the Indian context because of two reasons:

1. Contextualization and de-theorizing of education is a burning problem in India at present, and
2. Extremely very few Universities in India have the capability to undertake such a mammoth exercise and bring it to fruition.

### **Constraints/ Limitations**

The major constraints are:

1. Limited time with industry executives to participate in the problem-formulation exercise, which is the basis of the whole practice, lack of willingness to share data and lack of a basis to accurately predict the outcome of any practice to be evolved
2. This leads to severe pressures on the faculty, principally by way of setting aside the time to participate in problem-formulation exercise, and may create tensions at later stage when the matter can sometimes boil down to “that’s not what we meant” kind of comments with subsequent de-motivations on either side.

### **Evidence of Success**

Evidence of success can be gauged by the following facts:

1. Rising participation by the Industry and Government in establishing research, experimentation and teaching facilities at the Campus itself, as witnessed by the various Centres such as the Nanotechnology Centre, the Bosch-Rexroth Centre, and the Anchor Institute programme, with collective investments of around 15 to 20 crores
2. Introduction of special subjects in the present streams, like the collaboration with Reliance Industries Ltd.

3. Introduction of new programmes in collaboration with the MP Urological Hospital, a world-renowned kidney and urological hospital and research Centre
4. Modification of subjects to reflect the growing needs of industry for exports and banking/financial services.

# SELF EVALUATIVE REPORT



## FACULTY OF TECHNOLOGY

### 1. Name of the Department

Faculty of Technology

### 2. Year of establishment

The Faculty of Technology offers programmes in different engineering disciplines. The first UG programme started in 1968.

### 3. Is the Department part of a School/Faculty of the University?

The Dharmsinh Desai University has four departments. Faculty of Technology is one of them.

### 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D. Sc., D.Litt., etc.)

#### Diploma

Chemical Engineering (DChE).

#### UG programmes

B.Tech. (Chemical)  
B.Tech. (Computer)  
B.Tech. (Electronics & Communication)  
B.Tech. (Civil)  
B.Tech. (Instrumentation & Control)  
B.Tech. (Information Technology)  
B.Tech. (Mechanical)

#### PG programmes

M.Tech. (Electronics and Communication Systems)  
M.Tech. (Chemical Engineering)  
M.Tech. (Chemical Engineering-Surface Science & Nano Technology)  
M.Tech. (Computer)  
M.Tech. (Mechanical Engineering-CAD/CAM)  
M.Tech. (Civil –Structural Engineering)  
M.Tech. (Civil – Geotechnical Engineering)  
M.Tech. (Information Technology)  
M.Tech. (Instrumentation & Control)

#### Ph.D.

In all Engineering disciplines

**5. Interdisciplinary programmes and departments involved.**

- Substantial Ph.D work is interdisciplinary in nature. Research methodology is offered as compulsory course for all Ph.D. students.
- M.Tech. programmes have interdisciplinary electives.
- B.Tech. programmes have interdisciplinary electives

**6. Courses in collaboration with other universities, industries, foreign institutions, etc.**

- Work on substantial Ph.D and M.Tech research is carried out in association with industries (ISRO, IIST, PRL, IPR, Infosys, TCS, Elite-core and other industries).
- It is mandatory for B. Tech. final year students to undergo Industry Training. (ISRO, PRL, IPR, Vodafone, Nokia Siemens, Idea Cellular and other industries)
- Joint B.Tech.+ MS program with University of IOWA USA.
- Up skilling programs are offered by Anchor Institute under the auspices of Industries Commissionerate, Government of Gujarat. As on date we have offered four special programs for PI industries under this category and one program for GNFC.
- Centre of Excellence is established in collaboration with BOSCH Rexroth India Ltd in the field of Automation Technologies encompassing Hydraulic, Pneumatic, Sensoric, PLC, Mechatronics, Robotics, MLD, MTX and NC machines. Industry personnel are trained in the above areas upon request.
- IT department offers CISCO Academy programmes.

**7. Details of programmes discontinued, if any, with reasons**

NIL

**8. Examination System: Annual/Semester/Trimester/Choice Based Credit System**

Semester System

Choice Based Credit System implemented from Academic Year 2016-2017 at Undergraduate level.

**9. Participation of the department in the courses offered by other departments**

No

**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors /Asst. Professors/others)**

<b>3</b>	<b>Professor</b>	<b>Associate Professors</b>	<b>Asst. Professors</b>	<b>Others*</b>
<b>Sanctioned</b>	<b>27</b>	<b>44</b>	<b>116</b>	<b>-</b>
<b>Filled</b>	<b>10</b>	<b>27</b>	<b>129</b>	<b>7</b>
<b>Actual</b>	<b>10</b>	<b>27</b>	<b>129</b>	<b>7</b>



**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance.**

<b>Faculty Name</b>	<b>Qualification</b>	<b>Designation</b>	<b>Specialization</b>	<b>Total Exp. in Yrs</b>	<b>Research Guided</b>
D. G. Panchal	M.Tech.	Professor	Structural Engineering	36	50+
K.N. Sheth	M.Tech.	Professor	Structural Engineering	29	42
M.A. Patel	Ph.D.	Professor	Environment Engineering	26	2
S.S. Khandelwal	M.E.	Associate Professor	Water Resources Engineering	27	1
B.C .Patel	M.Tech.	Assistant Professor	Structural Engineering	32	5
J.B. Ranpura	B.Tech.	Assistant Professor	Civil Engineering	32	0
S.P. Parmar	M.E.	Assistant Professor	GeoTech Engineering	10	0
M. R. Bhavsar	M.Sc.	Assistant Professor	Geology	29	0
C.A. Ka.Patel	M.E.	Assistant Professor	Structural Engineering	9	1
A.D. Parekh	M.E.	Assistant Professor	GeoTech Engineering	11	1
J.K. Pandya	M.E.	Assistant Professor	Environment Engineering	12	0
R.K.Sheth	M.Tech.	Assistant Professor	Structural Engineering	4	8
R.N. Prajapati	M.Tech.	Assistant Professor	Structural Engineering	1	0
A.K. Shah	M.Tech.	Assistant Professor	Structural Engineering	2	0
A.K. Yadav	M.Tech.	Assistant Professor	Structural Engineering	0	0
G.D. Bassan	M.E.	Associate Professor	Machine Design	27.5	0
B.J. Patel	M.E.	Associate Professor	Thermal	33	0
R.M.Joshi	M.Tech.	Assistant Professor	Machine Design	15	0
R.V.Solanki	M.E.	Assistant Professor	CAD/CAM	16	0
P.V.Dixit	M.E.	Assistant Professor	Thermal	15	0
P.N.Tank	M.E.	Assistant Professor	Thermal	11	0
N.S.Patel	M.Tech.	Assistant Professor	Mechanical	10	0
N.A.Vora	M.E.	Assistant Professor	Machine Design	10	0

K.K.Shah	M.Tech.	Assistant Professor	Thermal	5	0
D.J.Desai	M.Tech.	Assistant Professor	CAD/CAM	4	0
M.N.Prajapati	M.Tech.	Assistant Professor	Thermal	5	0
K.R. Shah	MS	Assistant Professor	Mechanical	7.5	0
C.M. Fadadu	M.Tech.	Assistant Professor	Thermal	4	0
S.S.Sondh	M.Tech.	Assistant Professor	Machine Design	4	0
D.I. Upadhyay	M.E.	Assistant Professor	Production	4	0
G.N.Makwana	M.E.	Assistant Professor	Jet Propulsion	4	0
D.S.Patel	M.E.	Assistant Professor	CAD/CAM	4	0
A.P.Bhavsar	M.E.	Assistant Professor	Machine Design	6	0
H.N.Pandya	M.Tech.	Assistant Professor	CAD/CAM	4	0
P.A.Shah	M.Tech.	Assistant Professor	Computer Integrated Manufacturing	3.5	0
A.S.Patel	M.Tech.	Assistant Professor	CAD/CAM	4	0
J.M.raolaji	M.E.	Assistant Professor	Industrial Engineering	2	0
J.G.Pillai	M.E.	Assistant Professor	Machine Design	6.5	0
H.T.Patel	B.E.	Assistant Professor	CAD/CAM	20	0
Shruti Raval	M.E.	Assistant Professor	Machine Design	2	0
N.R.Prajapati	M.E.	Assistant Professor	Production	3.5	0
M.M.Chavda	M.Tech.	Assistant Professor	Electrical	3	0
P.A.Joshi	Ph.D.	Professor	Fluidization	34	2
M.S.Rao	Ph.D.	Professor	Process System Engineering, Environmental Engineering	20	6
A. P. Dhanwani	M.E.	Associate Professor	Process System Engineering	20	0
A. P. Deshmukh	Ph.D.	Associate Professor	Process System Engineering, Environmental Engineering	15	0
Vimal G.Gandhi	Ph.D.	Associate Professor	Environmental Engineering	17	9
Jalesh L.Purohit	Ph.D.	Assistant Professor	Process System Engineering	18	0
Dipali N. Shah	M.E.	Assistant Professor	Environmental Engineering	16	0
Mihir P.Shah	M.E.	Assistant Professor	Chemical Engineering	16	6

Nirav J.Bhavsar	M.E.	Assistant Professor	Polymer Engineering	8	0
Siddharth Modi	M.E.	Assistant Professor	Catalysis	7	0
Hitesh Panchal	M.E.	Assistant Professor	Process System engineering	4	0
Sweta Patel	M.E.	Assistant Professor	Surface Science	1	0
G. R. Patel	M.E.	Assistant Professor	Chemical Engineering	31	0
D.J.Vyas	M.E.	Assistant Professor	Chemical Engineering	28	0
Charmi Malde	M.E.	Assistant Professor	Chemical Engineering	5	0
Aneri Tamboli	M.E.	Assistant Professor	Chemical Engineering	1	0
Priyesh R.	M.E.	Assistant Professor	Chemical Engineering	1	0
Manish Mishra	Ph.D.	Assistant Professor	Organic Chemistry	8	3
Chirag Patel	Ph.D.	Assistant Professor	Organic Chemistry	4	0
Rignesh Patel	M.Sc.	Assistant Professor	Analytical Chemistry	6	0
V. A. Shah	Ph.D.	Professor	Artificial Intelligence, Neural Networks	22.5	9
C. S. Dalal	M.E.	Associate Professor	Power Electronics	23.8	10
J. G. Bhatt	M.Tech.	Assistant Professor	Measurement, Instrumentation and Control	18.5	12
M. T. Thakker	Ph.D.	Assistant Professor	Nano Technology	14.7	7
A. G. Patel	M.Tech.	Assistant Professor	Robotics, Signal Processing	14	6
S. P. Shah	M.Tech.	Assistant Professor	Microprocessors	9	0
S.P. Gaur	M.Tech.	Assistant Professor	Industrial Instrumentation	11.5	0
R. V. Mistry	B.Tech.	Assistant Professor	Industrial Management, Robotics	3.4	0
T. J. Patel	M.Tech.	Assistant Professor	Process Instrumentation	4.4	0
H. R. Patel	M.Tech.	Assistant Professor	Advanced Control Theory	2.1	0
H. S. Shah	M.Tech.	Adhoc Faculty	Measurement Techniques	7.5	0
Vrunda Shah	M.Tech.	Temporary Faculty	Measurement Techniques	1	0
C. K. Bhensdadia	Ph.D.	Professor	Soft Computing	25	104
Brijesh S.Bhatt	Ph.D.	Associate Professor	Networking, NLP, Soft Computing	13	26
M. T. Mehta	M.Tech.	Associate Professor	Computer Network, Big Data, Cloud Computing	13	8

P. M. Jadav	M.Tech.	Associate Professor	image processing, Operating System	13	15
Malay S.Bhatt	M.E.	Associate Professor	Data Mining, Image Processing	12	18
Parag H. Dave	MS	Assistant Professor	compiler, Algorithm	19	0
Sheetal S. Shah	M.Tech.	Assistant Professor	Computer Organization, Image Processing	16	1
Jigar Pandya	MS	Assistant Professor	Information Retrieval	6	0
B. M. Gambhava	M.E.	Assistant Professor	Computer Network, Operating System	10	2
Siddharth Shah	M.Tech.	Assistant Professor	Computer Network, Computer Programming	9	0
Ami M.Shah	M.Tech.	Assistant Professor	Artificial Intelligence, DBMS	8	0
Biren S.Soni	B.E.	Assistant Professor	.NET Technology, Service Oriented Archi.	7	0
Purvi B. Soni	M.Tech.	Assistant Professor	compilers, Networking	7	0
Ashish K. Gor	M.Tech.	Assistant Professor	Image Processing, Compilers	5	0
Nainesh Patel	M.Tech.	Assistant Professor	Computer Network, DBMS	5	0
T. V. Ratanpara	M.Tech.	Assistant Professor	Image processing, Soft Computing	5	1
A. P. Vaishnav	M.Tech.	Assistant Professor	Software Engineering, Data Mining	5	3
Jatayu H.Baxi	M.Tech.	Assistant Professor	.NET Technology, DBMS	4	0
Apurva A .Mehta	M.Tech.	Assistant Professor	Data Structure, Data Mining	4	0
S. P.Malukani	M.Tech.	Assistant Professor	Computer Network, Image Processing	4	0
Parth Dave	M.Tech.	Assistant Professor	Microprocessor, Image Processing	3	0
Pinkal Chavda	M.Tech.	Assistant Professor	Data Mining, Algorithm	3	1
Hariom Pandya	M.Tech.	Assistant Professor	Image Processing, Network Security	2	0
Niyati Buch	M.E.	Assistant Professor	Data Structure, Java	2	0
Vanraj Dangar	M.Tech.	Assistant Professor	Image Processing, Algorithm	4	0
Vivek Patel	M.Tech.	Assistant Professor	Networking, Data Security	4	0
Nikhil J. Kothari	Ph. D.	Professor	Digital Circuits and Systems, Computer Networks	29	14
H. S. Mazmudar	Ph. D.	Professor	Robotics and Image Processing	0	0
Vinay M. Thumar	Ph. D.	Associate Professor	Signal Processing & Wireless Communication	21	11
Purvang D. Dalal	Ph. D.	Associate Professor	Computer Networks, Digital VLSI Design	16	11

Hardip K. Shah	Ph. D.	Associate Professor	Wireless Communication & Signal Processing	17	15
Prarthan D. Mehta	Ph. D.	Associate Professor	Numerical Electro-magnetics	11	10
Rizwan H. Alad	Ph. D.	Associate Professor	Adaptive Antenna Array & spacecraft charging	12	4
Y. K. Meghrajani	M.E.	Associate Professor	Image Processing, Embedded System	13.5	5
Shital P. Thakkar	M.E.	Associate Professor	Signal & Image Processing	16	8
Pallavi G. Darji	M.E.	Associate Professor	Analog and Mixed signal VLSI Design	15	4
S. S. Thavalapill	M.Tech.	Assistant Professor	Wireless Communication (Physical layer)	16	2
Hetal B. Shah	M.Tech.	Assistant Professor	Wireless Communication	13	1
Manish K. Patel	M.E.	Assistant Professor	Embedded Systems	13	4
Ashish B. Pandya	M.Tech.	Assistant Professor	Electromagnetic Fields, Microwave Engineering	9	0
Jitendra M. Shah	M.E.	Assistant Professor	Industrial Electronics	9	0
Sohil A. Dabhi	M.Tech.	Assistant Professor	Computer Networking	7	0
Harshit M. Patel	M.Tech.	Assistant Professor	Analog Electronics & Communication	7	0
M. J. Limachia	M.Tech.	Assistant Professor	Digital VLSI Design	12	8
B. D. Parmar	M.E.	Assistant Professor	Computer Networking	8	2
Hardik B. Patel	M.Tech.	Assistant Professor	Digital VLSI Design	9.5	0
H. B. Rathod	M.Tech.	Assistant Professor	Wireless Communication	8	0
Keyur M. Patel	M.Tech.	Assistant Professor	Antenna & Microwave	8	0
Vasim A. Vohra	M.Tech.	Assistant Professor	Embedded System	7	0
N. V. Chauhan	M.Tech.	Assistant Professor	Communication System	6	0
Dipak K. Rabari	B. Tech.	Assistant Professor	Computer Networks & Image Processing	6.5	0
Bhavin P. Patel	B.E.	Assistant Professor	Embedded System, Digital Electronics	6	0
Mitul A. Shah	M.Tech.	Assistant Professor	Network Analysis, Communication System	7	0
Biren B. Patel	M.Tech.	Assistant Professor	Information and communication Technology	5	0
Marmik B. Soni	M.E.	Assistant Professor	Communication System Engineering	6	0
Rachit K. Dana	M.Tech.	Assistant Professor	Electromagnetic Fields, Wireless communication	6	0
Pinkesh V. Patel	M.Tech.	Assistant Professor	Image Processing	5	0

H. U. Prajapati	MS	Assistant Professor	Microprocessor System & Applications	3	0
Goral J. Nakum	MS	Assistant Professor	Wireless communication	4	0
Nisarg K. Bhatt	M.Tech.	Assistant Professor	Wireless Communication	2	0
B. D. Kavaia	B.E.	Adhoc Faculty	Wireless communication	3	0
H.P. Singh	Ph.D.	Associate Professor	Applied Mathematics	29	1
L. S. Desai	Ph.D.	Assistant Professor	Applied Mathematics	20	0
Vimal B Patel	Masters	Assistant Professor	Applied Mathematics	14	0
Kailash M Patil	Masters	Assistant Professor	Number Theory, Discrete Mathematics	10	0
Niraj M Pathak	Masters	Assistant Professor	Astro Physics	10	0
Gopal K Gohel	Masters	Assistant Professor	Applied Mathematics	9	0
Mitali J Doshi	Masters	Assistant Professor	Applied Mathematics	4	0
Bhavika Patel	Masters	Assistant Professor	Applied Mathematics	4	0
Priyanka B Sahu	Masters	Assistant Professor	Astro Physics	2	0
R. S. Chhajed	M.Tech.	Professor	Microprocessor, Microcontroller	35	0
V. K. Dabhi	Ph.D.	Associate Professor	Distributed Computing, Service Oriented Computing	14.5	10
H. B. Prajapati	Ph.D.	Associate Professor	Operating System, Distributed Computing	14	9
Ms. Anjali Thakur	M.A.	Assistant Professor	Communication Skills	16	0
Ms. Amita Prabin	M.A.	Assistant Professor	Communication Skills	2	0
N.P. Desai	M.E.	Associate Professor	Artificial Intelligence, Knowledge System	13	9
M M. Goswami	M.E.	Associate Professor	Digital Image Processing, Machine Learning	11	9
Barad Zankhana	B.E.	Assistant Professor	Object Oriented Programming, Data Structure	9	0
Amit A. Pandya	M.Tech.	Assistant Professor	Software Engineering, Data Mining	11	0
Ravindra A. Vyas	M.Tech.	Assistant Professor	Ecommerce & E-Security, Computer Network	8.5	1
Yogendra L. Patel	M.Tech.	Assistant Professor	Theory of Automata, Data Mining	8	1
Vimal Vachhani	M.Tech.	Assistant Professor	Computer Organization, Computer Network	6	0
Anand D. Dave	B.E.	Assistant Professor	Distributed Computing, .NET Programming	6	0
Brijesha D. Rao	B.E.	Assistant Professor	C Programming, Digital Electronics	5.5	0

Hardik H Mehta	M.Tech.	Assistant Professor	Operating System, Evolutionary Computing	6	1
Sandeep Suthar	B.E.	Assistant Professor	JAVA Programming, Operating System	7.8	0
Roshni M. Raval	B.E.	Assistant Professor	Database Management System, Knowledge System	4.25	0
Tanvi Goswami	B.E.	Assistant Professor	Computer Organization, Computer Network	4.8	0
Archana Shukla	M.Tech.	Assistant Professor	Software Engineering, Evolutionary Computing	7	1
Sharul Agrawal	M.Tech.	Assistant Professor	C Programming, Linux Operating System	2	0
Deepak C. Vegda	M.Tech.	Assistant Professor	Knowledge System, Computer Network	2	1
Ankit Didwania	M.Tech.	Assistant Professor	C Programming, Database Management System	7.25	0
N. H. Domadiya	M.Tech.	Assistant Professor	Computer Network, E-commerce & E-security	2	0

## 12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

No	Faculty Name	Details ( Position, Firm, Location )
1	Dr. Sanjay Chaudhary	Professor and Associate Dean (IET), Ahmedabad University
2	Dr. Suman Mitra	Dean (Academics), DA-IICT, Gandhinagar
3	Dr. Narendra M. Patel	Professor, BVM Engineering College, Vallabh Vidyanagar.
4	Dr. Amit Ganatra	Dean (Academics), CHARUSAT, Changa.
5	Dr. Madhuri Bhavsar	Section Head, Nirma University, Ahmedabad.
6	Dr. Sanjay Garg	Head, CE Dept., Nirma University, Ahmedabad.
7	Prof. Amit Thakkar	Associate Professor, CHARUSAT, Changa.
8	Mr. Upendra Patel	Chief Technical Officer, Masibus, Ahmedabad.
9	Mr. Gopesh Sanghavi	Chief Technical Officer, Samyak Infotech, Ahmedabad.
10	Mr. Amish B. Shah	Scientist-SF, PRL, Ahmedabad.
11	Mr. B. V. Buddhdev	Principal, Shantilal Shah Engg. College, Bhavnagar.
12	Mr. Dilip Bagrecha	Chief Technical Officer, Wishtree, Ahmedabad.
13	Mr. Mayur Tanna	Sr. System Architecture, Wishtree, Ahmedabad.
14	Mr. Jigar Rawal	Scientist-SE, PRL, Ahmedabad.
15	Mr. Samuel Johnson	Scientist-SE, PRL, Ahmedabad.
16	Mr. Nikunj Patel	iGate, Gandhinagar.
17	Mr. James Maslamani	TCS, Mumbai.
18	Mr. Niraj Salot	System Plus, Ahmedabad
19	Mr. Manish Shah	MS2 Technology, Jaipur.
20	Dr. Rammohan	IITRAM, Gandhinagar.
21	Dr. Vitthal Kamat	MBICT, V.V.Nagar.
22	Dr. Amit Ganatra	Dean, CHARUSAT, Changa.

23	Prof. B. V. Buddhdev	Principal, GEC, Bhavnagar
24	Mr. Nakul Vachhrajani	i-GATE, Gandhinagar
25	Mr. Pravin Jain	Zensoft, Vadodara.
26	Dr. Hemal Shah	Associate Professor, Ganpat University.
27	Dr. Ankit Thakkar	Associate Professor, Nirma University.
28	Dr. N.M. Patel	Associate Professor, BVM, V.V.Nagar.
29	Mr. Anuj Jajoo	Infosys
30	Dr. Kiran Parmar	Ex-Professor, Government Engineering College
31	Dr. Vedvyas Dwivedi	Pro Vice chancellor, C. U. Shah University, Wadhvan
32	Dr. Narendra M. Patel	Professor, BVM Engineering College, Vallabh Vidyanagar
33	Mr. Rahul Shah	Ex Division Head , e-infochips, Ahmedabad
34	Dr. Yashesh Shroff	Intel corporation, USA
35	Mr. Shyamal Mehta	Retd. Scientist, ISRO, Ahmedabad
36	Dr. Chetan Parikh	Academic Head, IICT, Ahmedabad University, Ahmedabad
37	Dr. Subhajit Sen	Sr. Principal Eng., SiRF Technology, Bangalore
39	Mr. Bikas Ghoshal	SCI/ENG-SD, Space Application Center, ISRO, Ahmedabad
40	Dr. Bhaskar Thakkar	Head, EC, G. H. Patel College of Eng. & Tech., V. V. Nagar
41	Mr. Dhruvesh Patel	Volansys Technology, Ahmedabad
42	Mr. Brijesh I. Shah	GM, Hardware Design Lead, Reliance Technologies, Mumbai
43	Ms. Sanjita Choksi	Avago Technologies, Silicon Valley, California

**13. Percentage of classes taken by temporary faculty – programme-wise information**

Programme	Percentage of classes taken by temporary faculty (2014-2015)
Diploma	0.00 %
UG	5.67 %
PG	2.00 %

**14. Programme-wise Student Teacher Ratio :**

Programme	Student Teacher Ratio (2014-2015)
Diploma	15 : 1
UG	17 : 1
PG	14 : 1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Academic Support Staff (Technical)	Administrative Staff
Sanctioned	22	9
Filled	21	9
Actual	21	9



## 16. Research thrust areas as recognized by major funding agencies

- Analog and mixed signal VLSI circuit design
- FinFET based Logic Circuits
- Next Generation Cellular Communication & Cognitive Radio
- Wireless Networks
- Space Craft Charging
- Integrated embedded intelligence for imaging applications
- Natural Language Processing
- Machine Translation
- Image Processing and Computer Vision
- Tribology.
- Surface Science and Nano Technology (UGC)
- Catalysis (GUJCOST)
- Process Systems Engineering (Anchor Institute)
- 3D imaging and microscope for uneven surface
- Space Technology
- Virtual Instrumentation Laboratories
- Solar City – Smart Grid
- Industrial and Factory Automation
- Wireless Sensor Networks, Robotics, Biomedical Instrumentation

## 17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

No	Project Title	Funding Agency	Grant in INR lakh
1	Designing a Reflecting Light Microscope for 3D Imaging of Thick and Irregular Surface	DST	80.76
2	EILMT: English to Indian Language MT	DeiTY	76
3	Enhanced Oil Recovery using Nano materials	ONGC, Ahmedabad	39.3
4	Planetary Exploration Technology Research	PRL Ahmedabad	38.7
5	Indradhanush: WordNet for Seven Indian languages	DeiTY	35
6	Development of Embedded and FPGA Application Modules for Space Payloads	PRL, Ahmedabad	32.18
7	Center of Excellence for Nanocatalysis: Development & Applications	GUJCOST, DST, GoG, India	28
8	A novel route for Synthesis of Silica supported Metal Sulfonates Solid Acid Catalysts and their Applications	DST, SERC, India. under Fast Track Projects for Young Scientists	19.9
9	Remote Controlled Gyro Stabilized Camera Gimbal	Sports Xstream, Denmark & YA Software LLP, Baroda	13.95
10	Removal of odor (VOCs) from polymers or paint formulation by adsorption	Asian Paints, Ltd., Mumbai, India	13

11	Mobile e-Learning Terminals (MeLT)	IIT, Roorkee, MHRD	12
12	Development of multifunctional catalysts for alcohol activation	UGC, New Delhi, under major research project	10.9
13	Nanotechnology to provide drinking water to poor nations	GSFC science foundation	10.27
14	Catalytic route for synthesis of decanonitrile	Transpek Industry, Ltd., Vadodara, India	4.34
15	Development of efficient micellar media for green catalytic organic reactions	GUJCOST, DST, GoG, India. under minor research project	3.95
16	“Surface and colloidal study of black board chalks in order to modify them in to dustless chalk”	GUJCOST	3.15
17	Conversion of 1,2,3-trichlorobenzene into valuable chemicals	Kutch Chemical Industries Limited, Baroda	2.16
18	Extraction of Sugars from Molasses and Value Addition to Extracted Sugars	Ambarnath Organics Pvt. Ltd., Mumbai	2.04
19	Extraction of Sugars from Molasses and Value Addition to Extracted Sugars	DST, SERC, New Delhi, India, under Innovative Entrepreneurship Development Centre (IEDC)	1.00
20	Synthesis of green surfactant (alkyl glycosides) from sugars available in molasses using solid acid catalysts	DST, SERC, under IEDC Program	1.00
21	Titanium dioxide coating for hydrophobic and medical applications	DST, SERC, under IEDC Program	1.00
22	Network Device Monitoring and checking system	DST, under IEDC Program	1.00
23	MHRD, Govt. of India sponsored “Virtual Labs (VLabs) Project” under NMEICT-Sakshat Programme	MHRD, Govt. of India via IIT Roorkee	-
24	Solar City – Smart Grid Project	GERMI Gandhinagar	-
25	Modeling of ARM cortex-M3 Processor using System C	e-Infochip, Ahmedabad	-
26	Electro Static Modeling of the structures used in a satellites	ISRO, Ahmedabad	-
27	Electro Static Modeling of coupled bodies used in artificial orbiting satellites	ISRO, Ahmedabad	-

## 18. Inter-institutional collaborative projects and associated grants received

### (a) National collaboration

No.	Project Title	Collaborative Institute	Grant in INR	Year
1	Implementation of Phase Array Antenna Simulator to test Beam forming Payload	ISRO , SAC, Ahmedabad	-	2102
2	Planetary Rover Path Planning in Rough Planetary Terrain	ISRO , SAC, Ahmedabad	-	2015

3	Monitoring & Control of FPGA based digital Receiver	ISRO , SAC, Ahmedabad	-	2015
4	Design, Development and Implementation of 32 APSK modem	ISRO , SAC, Ahmedabad	-	2015
5	Development, Simulation & Implementation of Object Detection Algorithm	ISRO , SAC, Ahmedabad	-	2015
6	Virtual Laboratories (VLab) Project	IIT Roorkee, Uttarakhand	-	2015
7	Location based Dissemination of Weather Forecast on Android Platform	ISRO , SAC, Ahmedabad	-	2014
8	To study compressive domain framework and design & simulate different techniques for sparse city measurement & signal reconstruction in compressive sensing	ISRO , SAC, Ahmedabad	-	2014
9	Design & Realization of low bit rate Satellite Mobile Radio Talk Group Network for Disaster Management	ISRO , SAC, Ahmedabad	-	2014
10	“Solar City – Smart Grid Project”	GERMI, Gandhinagar	-	2014
11	Study And Simulation Of Multipath Fading Signals	ISRO , SAC, Ahmedabad	-	2013
12	Design And Development Of Laser Range Finder System Using Time-Of-Flight Method	ISRO , SAC, Ahmedabad	-	2013
13	CDMA Modem for LEO system	ISRO , SAC, Ahmedabad	-	2012
14	Design & Implementation of DFT Methodologies for Multimillion Gates SOCs	ISRO , SAC, Ahmedabad	-	2011
15	Study on High-Frequency Techniques for Large Satellite Antenna System	ISRO , SAC, Ahmedabad	-	2011
16	Modelling of Verification Architecture for IEEE 802.11 a/b based SOCs	E-Infochip, Ahmedabad	-	2011
17	Bottle Inspection System Based on Machine Vision	VizTek, Ahmedabad	30,000	2011
18	High Performance OCR System for Non Ideal Cases	VizTek, Ahmedabad	30,000	2011
19	“VSAT-Enabled Mobile e-learning Terminals (MeLT) Project”	IIT Roorkee, Uttarakhand	-	2011

**(b) International collaboration**

NIL

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

No	Project Title	Funding Agency	Grant in INR lakhs	Team Members
1	Designing a Reflecting Light Microscope for 3D Imaging of Thick and Irregular Surface	DST	80.76	Dr. H.S.Mazumdar, Dr. Atindra Shukla, Prof. R.S.Chhajed, Dr. Tejal Soni

2	IEDC Project from DST	DST, IEDC.	40.00	Prof. C.S.Dalal
3	Planetary Exploration Technology Research	PRL Ahmedabad	38.70	Dr. H.S.Mazumdar, Prof. R.S.Chhajed
4	Development of Embedded and FPGA Application Modules for Space Payloads	PRL Ahmedabad	32.00	Dr. H.S.Mazumdar, Prof. R.S.Chhajed
5	Center of Excellence for Nanocatalysis: Development & Applications	GUJCOST, DST	28.00	Dr. P.A. Joshi
6	A novel route for Synthesis of Silica supported Metal Sulfonates Solid Acid Catalysts and their Applications	DST, SERC, under Fast Track Projects for Young Scientists	19.90	Dr. M.K.Mishra
7	TEDP Project from DST	DST	15.00	Prof. C.S.Dalal
8	Enhanced Oil Recovery using Nano materials	Oil and Natural Gas Corporation (ONGC), Ahmedabad	14.50	Dr. M.K.Mishra
9	Removal of odour (VOCs) from polymers or paint formulation by adsorption	Asian Paints, Ltd., Mumbai, India	13.58	Dr. M.K.Mishra
10	Nanotechnology to provide drinking water to poor nations	GSFC science foundation	10.27	Dr. P.R.Shukla
11	Development of multifunctional catalysts for alcohol activation	UGC, New Delhi, under major research project	6.48	Dr. M.K.Mishra
12	Catalytic route for synthesis of decanonitrile	Transpek Industry, Ltd., Vadodara, India	4.34	Dr.M.K.Mishra
13	Conversion of 1,2,3-trichlorobenzene into valuable chemicals	Kutch Chemical Industries Limited, Baroda	4.32	Dr.M.K.Mishra
14	“Surface and colloidal study of black board chalks in order to modify them in to dustless chalk”	GUJCOST	3.15	Dr.Manish Thakker
15	Development of efficient micellar media for green catalytic organic reactions	GUJCOST, DST, under minor research project	2.10	Dr.M.K.Mishra
16	Extraction of Sugars from Molasses and Value Addition to Extracted Sugars	Ambernath Organics Pvt. Ltd., Mumbai	2.04	Dr.Vimal Gandhi, Dr. M.K.Mishra
17	Extraction of Sugars from Molasses and Value Addition to Extracted Sugars	DST, SERC, IEDC	1.00	Dr.M.K.Mishra, Prof. Siddharth Modi
18	Synthesis of green surfactant (alkyl glycosides) from sugars available in molasses using solid acid catalysts	DST, SERC, IEDC	1.00	Dr.M.K.Mishra, Prof. Siddharth Modi

19	Titanium dioxide coating for hydrophobic and medical applications	DST, SERC, IEDC	1.00	Dr.M.K.Mishra
20	Network Device Monitoring and checking system	DST, IEDC	1.00	Prof. M M Goswami
21	Software Module for Design of Rectangular & Non-Rectangular RCC Columns using Visual C++ 2010	DST,IEDC	1.00	Mrudang Mehta, Rutvik Sheth, Jatayu Baxi
22	Software Module for Design of RCC Retaining Wall using Visual C#	DST, IEDC	1.00	Rutvik Sheth, Jatayu Baxi, Nikunj Vadher
23	Microcontroller Based Inverter	National Science and Technology Entrepreneurship Development	1.00	Manish K. Patel
24	Sign Identification for Blind	National Science and Technology Entrepreneurship Development	1.00	Shital P. Thakkar
25	Personal Assistance System	National Science and Technology Entrepreneurship Development	1.00	Prarthan D. Mehta

## 20. Research facility / centre with

- **State Recognition**  
Shah Schulman Centre for Surface Science and Nano Technology.  
Centre of Excellence in Catalysis (GUJCOST)
- **National Recognition**  
Centre of Excellence in training and research in Automation Technologies.
- **International Recognition**  
Shah Schulman Centre for Surface Science and Nano Technology.  
CISCO Laboratory has been setup for Computer Networking.

## 21. Special research laboratories sponsored by / created by industry or corporate bodies

- Bosch Rexroth India Ltd has established latest laboratory facilities in Automation Technologies.
- Shah Schulman Centre for Surface Science and Nano Technology.
- Factory Automation (Mitsubishi Electric India)
- Embedded Systems (Texas Instruments Bengaluru)
- E-Yantra Robotics Lab (IIT Bombay)

## 22. Publications:

<b>National Journal</b>	<b>: 10</b>
<b>National Conference</b>	<b>: 61</b>
<b>International Journal</b>	<b>: 167</b>
<b>International Conference</b>	<b>: 139</b>
<b>Books</b>	<b>:</b>
<i>Monograph</i>	<b>: 6</b>
<i>Chapter</i>	<b>: 11</b>
<i>Edited</i>	<b>: 4</b>
<i>Listed in International Database</i>	<b>: 13</b>

**Citation** : 2.35 (Average)

**h-index** : 3.12 (Average)

## Book Details

No	Author	Book Title	ISBN No	Publisher	Year
1	Jignesh G Bhatt , Omkar Jani	E-Governance of Smart Cities, Vol. 3, Advances in 21st Century Human Settlement,	978-981-287- 287-6	Springer Singapore.	2015
2	Smith Thavalapill	Joint Estimation of CFO and CIR in MIMO-OFDM systems	978-3-659- 74887-5	LAMBERT Academic Publishing, Germany	2015
3	Jignesh G Bhatt , Omkar Jani	E-Governance of Smart Cities, Vol. 2, Advances in 21st Century Human Settlement,	978-981-287- 286-9	Springer Singapore.	2014
4	Manish K. Patel	The 8051 Microcontroller and Embedded System	978-9-332- 9012-54	McGraw Hill education Pvt. Ltd	2014
5	Himanshu B Dave, Parag H. Dave	Compilers : Principles and Practice	813-177-6115	Pearson India	2012
6	Mitesh J. Limachia	Modelling & Simulation of ARM Processor Architecture Using System C	978-3-659- 12088-6	LAMBERT Academic Publishing, Germany	2012

## 23. Details of patents and income generated

NIL

#### 24. Areas of consultancy and income generated

Area of Consultancy	Income Generated in INR
“Environmental Audit” for the Chemical Process industries in the State of Gujarat.	255,00,000
Structural Engineering and concrete technology and water resources engineering	110,96,000
Embedded system and computer science	10,000

#### 25. Faculty selected nationally / internationally to visit other laboratories / institutions/ industries in India and abroad

- Dr. Nikhil Kothari visited Jaypee University of Engineering & Technology, Guna, MP.
- Prof. B.S.Bhatt visited IITB, India.
- Prof. G.D.Bassan and Prof. N.S.Patel visited Automotive Subdivision, Department of Mechanical Engineering, YILDIZ TECHNICAL UNIVERSITY, İstanbul and Triboloji Derneği - TURKEY.

#### 26. Faculty serving in

- a) National committees b) International committees c) Editorial Boards d) any other (please specify)

No of Faculties	Total
Doctoral Committee	10
Review Committee	51
Program Committee	18
Advisor Committee	11
Any Other	7

#### 27. Faculty recharging strategies (UGC, ASC, Refresher/orientation programs, workshops, training programs and similar programs).

Staff Trainings	Total
UGC	3
ASC	0
Refresher / Orientation programs	8
Workshops	108
Training programs	281
Similar programs	20

#### 28. Student projects

- percentage of students who have done in-house projects including inter-departmental projects :

M.Tech./Ph.D. students take up to in-house research assignment.

Programme	Student Project in %
UG	< 10%
PG	< 70%

- percentage of students doing projects in collaboration with other universities/ industry / institute :

Programme	Student Project in %
UG	> 90%
PG	> 30%

Projects by students during B. Tech. Sem. VIII as part of Industry Training.  
M.Tech. & Ph.D. research assignments in association with industry.

**29. Awards / recognitions received at the national and international level by faculty/student.**

More than **217 Students** awarded at National Level during the assessment period.

**Faculty Awards:**

Faculty Name	Particular	Firm/Agency	Year
Dr. P.A.Joshi.	Excellence in Education	GChA	2014
Dr. P.A.Joshi	Life time achievement	DDUAA	2014
Dr. M.K. Mishra	Achiever's Award (in research)	DDUAA	2014
Dr. Manish Thakker	Achiever's Award	DDUAA	2014
Prof. Hariom A. Pandya	Winner - Distinguished Faculty	Infosys	2014
Prof. Jigar Pandya	Winner - Distinguished Faculty	Infosys	2014
Prof. Tushar Ratanpara	Longest Continuous SBC	CSI	2014
Prof. Mrudang Mehta	Best paper award for a research paper	IEEE ICCIC	2014
Dr. M.K. Mishra	Dr. D.O. Shah Research Excellence Award	SSCNT	2013
Prof. Tushar Ratanpara	Longest Continuous SBC	CSI	2013
Prof. Tushar Ratanpara	Paper Presenter Award	Int. Conference	2013
Dr. J.L.Purohit	Best paper award during RSS-2012	IIT, Bombay.	2012
Prof. Tushar Ratanpara	Active Participation Young Member	CSI	2012
Prof. D.J.Vyas	THE BEST TEACHER AWARD	ISTE	2010
Prof. Smith Thavalapill	Best Paper Award	IETE	2010



**30. seminars/Conferences/Workshops organized and the source of funding (Type: national/international) with details of outstanding participants, if any.**

No	Category	Title	Year	Duration	Source of Funding
1	Workshop	Industrial Automation	2015	12 Days	University
2	Workshop	Computational Fluid Dynamics using ANSYS	2015	12 Days	University
3	Workshop	Advanced Instrumental Methods of Analysis	2015	5 Days	University
4	Workshop	Chemical plant operators in process industries	2015	3.5 Months	PI Industries
5	Workshop	TEDP in PLC & SCADA	2015	1.5 Months	DST Funded
6	Workshop	EAC (Entrepreneurship Awareness camp)	2015	3 Days	DST funded
7	Workshop	ISTE approved STTP on “Factory Automation and Embedded Systems”	2015	6 Days	University
8	Seminar	Research Issues in Wireless Sensor Networks and Delay Tolerant Networks	2015	2 Days	GUJCOST
9	Workshop	Algorithm Design Practices	2015	1 Week	ISTE
10	Workshop	Web Development with Java	2015	1 Week	GUJCOST
11	Workshop	Recent Trends in Video Processing and Soft Computing	2015	1 Week	ISTE
12	Workshop	Object Oriented Design and Patterns	2015	1 Week	ISTE
13	Seminar	Career in SW Testing	2015	2 Days	CSI
14	Seminar	Comparison of TCP Variants	2015	1 Day	CSI
15	Seminar	Game Theory	2015	1 Day	CSI
16	Workshop	PCB Design	2015	1 Day	University
17	Workshop	Simulation of Digital Logic using Verilog	2015	1 Day	University
18	Workshop	Automation Technology	2015	1 Day	University
19	Seminar	Analysis and Design of RC Structures using STAAD PRO	2014	1 Day	University
20	Seminar	Analysis and Design of RC Structures using SAP 2000 v16	2014	1 Day	University
21	Seminar	Application of Geotech software by OASYS India	2014	1 Day	University
22	Workshop	Chemical plant operators in process industries	2014	3.5 Months	PI Industries
23	Seminar	Introduction to Application Development on Android Platform	2014	1 Day	University
24	Seminar	Emerging Technology - mobile, cloud computing & software services.	2014	1 Day	University
25	Workshop	TEDP in Hybrid low power mix signal Micro controller & microprocessor	2014	1.5 Months	DST funded
26	Seminar	Hibernate & Spring	2014	1 Day	CSI
27	Seminar	PLC & Its Application.	2014	1 Day	University
28	Seminar	Interplanetary Mission	2014	1 Day	University
29	Seminar	RF Planning & advance Wireless Systems	2014	1 Day	University

30	Workshop	Research Presentations using LATEX	2014	1 Day	University
31	Workshop	Chemical plant operators in process industries	2013	3.5 Months	PI Industries
32	Workshop	Carrier Development Program	2013	2 Months	University
33	Workshop	Chemical Engineering for Non chemical Engineering	2013	2 Months	PI Industries
34	Workshop	Workshop on Ruby on Rail	2013	1 Day	University
35	Workshop	3-Days workshop on “Intensive Introduction on Lab VIEW”	2013	3 Days	University
36	Seminar	Linux Workshop	2013	1 Day	IITB
37	Workshop	Python workshop	2013	2 Days	CSI
38	Seminar	Motivational Talk on “Artificial intelligence and soft computing	2013	1 Day	CSI
39	Seminar	Waveguide& Its Application	2013	1 Day	University
40	Seminar	Filter Design using MSP430	2013	1 Day	University
41	Seminar	Photo detector & its Application	2013	1 Day	University
42	Seminar	Analog/Mixed Signal Design using Deep Submicron Technology.	2013	1 Day	University
43	Seminar	Amplifier Circuit Design using BJT	2013	1 Day	University
44	Workshop	Simulation of Electronic Devices & Circuits	2013	5 Days	University
45	Workshop	MATLAB & Image Processing LAB	2013	3 Days	University
46	Seminar	Introduction To Android And Mobile Technology	2012	1 Day	University
47	Seminar	Introduction To PhP And Joomla	2012	1 Day	University
48	Seminar	Introductory and Advanced Topics In Java Technology	2012	1 Day	University
49	Seminar	Motivational talk on opportunities of higher education	2012	1 Day	CSI
50	Seminar	Motivational Lecture on "Game Theory"	2012	1 Day	CSI
51	Seminar	Expert Talk on "Research areas in data mining	2012	1 Day	CSI
52	Workshop	STTP on ASP.Net	2012	2 Days	CSI
53	Seminar	Embedded system Design Issue	2012	1 Day	University
54	Seminar	Digital to Analog converters	2012	1 Day	University
55	Seminar	Design Temperature Sensor Circuit	2012	1 Day	University
56	Seminar	Satellite Communication & its Application	2012	1 Day	University
57	Seminar	Challenges in Wireless Broadband	2012	1 Day	University
58	Seminar	Real Time Signal Processing	2012	1 Day	University
59	Workshop	Process Engineering Vacuum Technology	2011	2 Days	PI Industries
60	Seminar	Practical Aspects Of Open Source Technology	2011	1 Day	University
61	Workshop	Rational Apps Developer	2011	4 Days	University
62	Workshop	2-Days workshop on “Group Discussion”	2011	3 Days	University
63	Seminar	Seminar on "Abroad Education"	2011	1 Day	CSI
64	Seminar	Seminar on E-Banking	2011	1 Day	CSI

65	Seminar	STTP on Android	2011	1 Day	CSI
66	Seminar	STTP on PHP/Drupal	2011	1 Day	CSI
67	Seminar	Expert Lecture on " Nano Technology"	2011	1 Day	CSI
68	Seminar	Mathematics, Reality & Technology	2011	1 Day	University
69	Seminar	Robotics	2011	1 Day	University
70	Seminar	Electrical Power and Switchgear	2011	1 Day	University
71	Seminar	GSM Technology	2011	1 Day	University
72	Workshop	Robotics	2011	1 Day	University
73	Workshop	Analog & Digital CMOS Design and Optimization	2011	2 Days	University
74	Workshop	Machine Vision Image Processing	2011	2 Days	University
75	Workshop	Simulation of Electronic Devices & Circuits	2011	2 Days	University
76	Workshop	Process Engineering Mixing and Agitation	2010	2 Days	PI Industries
77	Seminar	Android Workshop	2010	1 Day	CSI
78	Seminar	Project Management	2010	1 Day	University
79	Seminar	Multiple Access Techniques	2010	1 Day	University
80	Seminar	DSP Processor Architecture	2010	1 Day	University
81	Seminar	Semiconductor Landscape: An overview	2010	1 Day	University
82	Workshop	MATLAB Basics	2010	4 Days	University
83	Workshop	Anukar-2010	2010	1 Day	University

### 31. Code of ethics for research followed by the departments

The Department is following the ethics and protocols by motivating the students and faculty for any research work carried out within the department. The department organizes mid-term reviews of dissertation work of all the students in both the semesters of dissertation work.

The department provides substantial feedback and suggestions to improve and ensure the quality of research carried out by the department. The faculty members of the department do through review for quality of manuscripts before they are submitted by students to any publication place. Besides, various online tools for plagiarism are used for validation and thus quality assurance for research work is carried out. All students and faculty members are committed to carry out research work for the betterment of society in general and development of nation.

Compulsory Ph. D. course of Research Methodology provides awareness and initial thrust for conducting research in appropriate manner.

Development of a relevant test bed in respective areas of research is strongly advised so as to practically study, examine, evaluate and analyse the concepts, existing schemes and findings of research critically.

Faculty members are encouraged to submit original work to reputed peer reviewed journals and world class conferences. Reviewers' comments are considered important in order to solidify the research outcome in right direction.

**32. Student profile programme-wise:**

Programme	Admitted (2014-2015)		Pass (2014-2015)	
	Male	Female	Male	Female
Diploma	29	3	28	3
UG	569	132	486	194
PG	55	43	50	47

**33. Diversity of students**

Name of the Programme	% of Students from the Same State	% of Students from outside the State	% of Students from the Other countries
Diploma	100%	0%	0%
UG	98%	2%	0%
PG	96%	4%	0%

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

Competitive Exam	GATE	GRE	TOEFL	CAT	IETLS	Other
Number of Students	255	176	153	10	31	1

**35. Student progression**

	In % of total enrolled
UG to PG	11.38%
PG to M.Phil.	No Data Available
PG to Ph.D.	No Data Available
Ph.D. to Post-Doctoral	No Data Available
Employed	44.31%
<input type="checkbox"/> Campus selection	39.04%
<input type="checkbox"/> Other than campus recruitment	5.27%
Entrepreneurs	No Data Available

**36. Diversity of staff**

Percentage of faculty who are graduates	of the same university	from other universities within the State	from universities from other States	from universities outside the country
In percentage of Total	29%	64%	5.63%	1.37%

**37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period**

<b>Ph.D</b>	<b>M.Tech.</b>
12	25

**38. Present details of departmental infrastructural facilities with regard to**

- a) Library : Yes  
 Total seating area (in sq. ft.) : 10709 sq. feet  
 Books : 23495  
 e-Journals : Yes  
 Magazines : Yes  
 E- Resources : Yes
- b) Internet facilities for staff and students: Yes

514 Nodes are connected to LAN for Internet Access

- c) Total number of class rooms : 51  
 d) Class rooms with ICT facility : 23

Projector facility available whenever required by faculty.  
 Individual departments within Faculty of Technology have a server set up for accessing information/content i.e. video lectures, presentations, software and various notes etc.

- e) Students' laboratories : 67  
 f) Research laboratories : 06

**39. List of doctoral, post-doctoral students and Research Associates :**

Doctoral Students

<b>No.</b>	<b>Name</b>	<b>Broad Area/Discipline</b>
1	R.K.Sheth	Structural Engineering
2	S.S.Khanderwal	Water Resources Engineering
3	G.D.Bassan	Tribology
4	N.S.Patel	Tribology
5	K.R.Shah	Tribology
6	Avinash Deshmukh	Chemical Engineering
7	Vimal Gandhi	Chemical Engineering
8	Anand P Dhanwani	Chemical Engineering
9	Mihir P.Shah	Chemical Engineering
10	Deepali N. Shah	Chemical Engineering
11	Nirav J.Bhavsar	Chemical Engineering
12	Charmi Varia	Chemical Engineering
13	Tigmanshu Patel	Chemical Engineering
14	Manish Thakker	IC Engineering

15	C.S.Dalal	IC Engineering
16	J.G.Bhatt	IC Engineering
17	Vipul K. Dabhi	Genetic Programming
18	Harshad B. Prajapati	Distributed Operating System
19	Mrudang T. Mehta	Computer Network
20	Prashant M. Jadav	Image Processing
21	Vinay M. Thummar	Cognitive Radio
22	Shah Hardip	MIMO OFDM Wireless Communication
23	Dalal Purvang	Wireless Networks
24	Prarthan D. Mehta	Electro Magnetic Fields
25	Darji Pallavi G	Analog & Mix Circuit Design
26	Alad Rizwan H	Electro Magnetic Fields
27	Yogesh K. Meghrajani	Image Processing - Embedded System
28	Mitesh J. Limachia	Low Power Fin FET Design
29	Roy Bijoy	Satellite Communication
30	Brijeshkumar I Shah	Mobile Communication
31	Patel Maulika	Algorithms
32	Mahajan Seema	Chemical Engineering
33	Patel Minal P.	Cloud Computing
34	Patel Chirag	Natural Language Processing
35	Parin D. Shah	Chemical Engineering
36	Vatsal Patel	Chemical Engineering
37	Arti Pamnani	Chemical Engineering
38	S.C. Modi	Chemical Engineering

**40. Number of post graduate students getting financial assistance from the university.**

Teaching Assistantship	Fee Relaxation	Grant for Project Work/Participation
54	21	22

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- Opinions and suggestions from Employers, Alumni and Industries were obtained.
- Benchmarking syllabus with similar programmes offered by NITs, IIT's and AICTE model curriculum.
- All the inputs given by stakeholders were placed in the BoS. These suggestions are considered when framing the curriculum and syllabi for a new subjects.
- Report approved by BoS is submitted to the academic council.

During the assessment period M.Tech. (Mechanical Engineering – CAD/CAM) programme is started.

**42. Does the department obtain feedback from**

- a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

All faculty members submit teaching plan for their subjects at the starting of the semester. At the end of the semester teachers can suggest changes or modifications in the course content based on their experience. These suggestions are discussed in BoS and included for the next batch if approved by BoS and Academic council

- b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Student feedbacks are taken through Online Feedback System in each semester. Students give feedback without disclosing their identity. Feedback is evaluated by head of the department and sent to respective faculty members. Corrective measures, if required, are taken.

- c. Alumni and employers on the programmes offered and how does the department utilize the feedback?**

Head of the Department receives the feedback during Alumni meets and puts up the same before BoS for consideration after due deliberations with the faculty members. During the campus interviews, through the interaction with company representative feedback on the curriculum is obtained and any suggestions given are discussed in BoS. Similarly new laboratory practical are also proposed and added.

**43. List the distinguished alumni of the department (maximum 10)**

No	Name	Details
1	Dr. M.N.Patel	Vice Chancellor, Gujarat University, Ahmedabad.
2	Mr. Yatindra Sharma	MD, KHS Machinery
3	Mr. Jaimin Vasa	MD, Vasa Group Of Industries
4	Dr. Shailesh Gandhi	Dean, Academic And PG Program, IIMA
5	Parindu Bhagat,	Independent Director of Indian Oil Corporation
6	Shakil Kadri	Executive Director, Center of Process Safety, AIChE, Washington DC, USA.
7	Sarita Nayyar	Global Head, Business Development, Wipro, Bangalore.
8	Jigar Raval	Deputy Commissioner of Income Tax, GOI
9	Sachin Mehta	National Head, VAS, Vodafone Essar Ltd.
10	Nitesh Kumar Vyas	IAS, Govt. of India

**44. Give details of student enrichment programmes (special lectures/workshops/seminar) involving external experts.**

<b>Year</b>	<b>Expert Details</b>	<b>Topic</b>
2015	Mr. Jay Thakkar	Solar energy conversion technology & its demonstration”
2015	Dr. S. Ramamoorthy	Introduction to variable volume reactions
2015	Dr. S. Ramamoorthy	Introduction to reactor design
2015	Mr. Jay Thakkar	Solar energy conversion technology & its demonstration”
2015	Mr. Ujjawal Nagar	How to Prepare for Campus Interview
2015	Mr. Mehul Gohel	Development of Kernel Device Driver
2015	Experts from TCS	TCS Selection Process & Preparation Guidance
2015	R. Trikkalurvariath	Installation of Automation Systems and Safety Devices”
2015	Dr. Ankit Thakkar	Research Issues in Wireless Sensor Networks
2015	Dr. Hemal Shah	Research Issues in Delay Tolerant Networks
2015	Mr. Pravin Jain	Java Servlets
2015	Mr. Pravin Jain	JSP Standard Tag Libraries and Custom Tags
2015	Prof. B. V. Buddhadev	Introduction to Frameworks for Java EE
2015	Prof. B. V. Buddhadev	Behavioral Design Patterns
2015	Dr. Amit Ganatra	UML Diagrams
2015	Mr. Nakul Vachhrajani	Design Principles and Creational Design Patterns
2015	Ms. Sanjita Choksi	ASIC Design
2015	Mr. Ravi Singh	Industrial Automation
2015	Joycee Mackie	Opportunities for Higher Study
2014	Mr. Shakkal Kadri	Process Safety
2014	Mr. P.V.DARJI	Concrete Technology & Non Destructive Test On Concrete
2014	Mr. Yomen Shah	Heating, Ventilation & Air-Conditioning
2014	Mr. N. M. Dubey	Tribometers and its applications
2014	Shakil Kadri	Safety in Process Industry
2014	D. D. Mehta	Opportunities for Chemical Engineers.
2014	Mr. B. I. Bhatt	Process Calculation for Chemical Industries
2014	Mr. Yomen Shah	Heating, Ventilation & Air-Conditioning
2014	Mr. N.M.Dubey	Tribometers and its applications
2014	Ms. Bhagyashri Patel	Application Development on Android Platform
2014	Mr. Ujjawal Nagar	An expert session on Career Guidance
2014	Mr. Manish Shah	Hibernate & Spring
2014	Mr. Brijesh I. Shah	RF Planning & Advance Wireless Systems
2014	Dr. S. Sarkar	Interplanetary Mission
2014	Mr. Dhruvesh Patel	Operating System
2013	Shri Anupam Mandal	Blended Cement And Its Contribution Towards Durability
2013	M. R. Gandhi	Water & Civilization
2013	Prof. S.B.Thakor	Scrubber Design
2013	Prof. Shailesh Gandhi	MBA after engineering
2013	Mr.Mithilesh Chudgar	Soft skill
2013	Mr. Sanjay Gupta	Mobile computing, cloud computing and software services.



2013	Mr. Ujjawal Nagar	Preparing For Campus Placement
2013	Mr. Ujjawal nagar	Seminar on Entrepreneurship
2013	Mr. Shardul Bhatt	Workshop on Ruby on Rail
2013	Prof. Chetan Bhatt	ICT Based Instrumentation
2013	Dr. Rammohan	Artificial intelligence and soft computing
2013	Mr. Archit Somani	Real Time Signal Processing
2013	Mr. Bikas Ghoshal	Waveguide & Its Application
2013	Dr. Bhaskar Thakkar	Filter Design using MSP430
2013	Mr. Bikas Ghoshal	Photo detector & its Application
2013	Dr. Subhajit Sen	Analog/Mixed Signal Design - Deep Submicron Technology.
2013	Dr. Chetan Parikh	Amplifier Circuit Design using BJT
2012	Dr. M.S. Patel	Kalpsar Project - Present Status And Future Prospects
2012	Mr. Dipak Shah	CADD software and their applications
2012	Mr. Dipak Shah	CADD softwares and their applications
2012	Ms. Khevna patel	How to prepare for campus interview
2012	Mr. R. B. Vadia	Changing face of instrumentation & its' effects on the manufacturing industry
2012	Dr. Tushar Shah	Human Body and Technology
2012	Mr. Nirav Patel	Process Automation using DCS & PLC
2012	Mr. Jignashu Panchal	Motivating Students for Employability and Entrepreneurship
2012	Mr. Vaibhav Gandhi	Introduction to Process Automation
2012	Mr. Hitesh Shah	Motivational talk on opportunities of higher education
2012	Dr. Ratnik Gandhi	Motivational Lecture on "Game Theory"
2012	Dr. Amit Ganatra	Expert Talk on "Research areas in data mining
2012	Jagdish Sanghani	Embedded system Design Issue
2012	Dr. Chetan Parikh	Digital to Analog converters
2012	Dr. Subhajit Sen	Design Temperature Sensor Circuit
2011	Mrunal Shah	Awareness About IES, PSU, GATE Exam
2011	Mr. Rohan M Joshi	Introduction To Android & Mobile Technology
2011	Ms. Roshni Raval	Introduction To PHP & JOOMLA
2011	Mr. Sandeep suthar	Introductory & Advanced Topics In Java Technology
2011	Mr. Jigar Anadkat	Process Automation using DCS & PLC,
2011	Mr. Amit Agrawal	Speed Mathematics,
2011	Dr. Tushar Shah	Human Body and Technology
2011	Mr. Hitesh Shah	Seminar on "Abroad Education"
2011	Vinod Kumar Singh	Seminar on E-Banking
2011	Mr. Sajid Mugal	Expert Lecture on "Nano Technology"
2011	Rahul Shah	Project Management
2011	Shyamal Mehta	Multiple Access Techniques
2011	Mr. Bhvesh Dharmani	DSP Processor Architecture
2011	Dr. Yashesh Shroff	Semiconductor Landscape: An overview
2011	Mr. Bhvesh Dharmani	Mathematics, Reality & Technology
2011	Mr. Anvay Suthar	Robotics
2011	Mr. Nikhil Shah	Electrical Power and Switchgear
2011	Mr. Sanjay Gohel	GSM Technology

2011	Shyamal Mehta	Satellite Communication & its Application
2011	Mr. Sanjay Gohel	Challenges in Wireless Broadband
2010	Mr. Rajeev Singhal	FCC
2010	Prof. M.N.Vyas	Safety in Chemical Process Industries
2010	Dr. N. Subraminian	Petroleum and Petrochemical Industries
2010	Mr. Paresh Bhavsar	Practical Aspects Of Open Source Technology
2010	Mr. Suryakant	Rational Apps Developer

\*Other details will be presented to the NAAC team at the time of their visit to the campus.

**45. List the teaching methods adopted by the faculty for different programmes.**

- Apart from class room teaching using conventional black board method, faculty members also practice Interactive teaching-learning methodology. They explain important concepts with the help of power point presentation, multimedia material, e-resources etc. They also carry out live demonstration of experiments in the class, wherever necessary.
- Faculty members also conduct short quiz and give assignments.
- Introduce Web based learning and experimentation
- Conducting tutorials for analytical subjects.
- Industrial visits on subject concepts.
- 4 months of Industry training in Final Year.
- Interactive sessions with invited resource persons.
- Wall charts and models are used in laboratories and workshops
- At M. Tech and Ph.D. level case study based teaching is given more importance. Both experimental and simulation based case studies are used for this purpose

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- The two important measureable parameters are growth in the number of students getting placement and new companies showing willingness for campus selection.
- Students securing admissions in institutes of higher learning through competitive exams is an indicator of learning outcomes.
- Industry feedback is obtained through personal interaction with industry experts at BoS and during visit to campus for placements.
- Internal sessional exam is conducted at the end of each teaching session and outcome is monitored in terms of subject wise result analysis and Overall Result.
- Student's performance in laboratory experiments, project work and industry indicate the learning outcome.
- Student feedback on teaching learning mechanism is also considered as measurable parameter
- Through departmental meetings and interactions with the students the progress is monitored.
- Auditing for ISO documents by internal and external teams is done twice a year. The report is considered by the department and suitable action is taken to set right any deficiencies.

**47. Highlight the participation of students and faculty in extension activities.**

- NCC and NSS activities.
- Student and faculty members actively organize and participate in activities such as blood donation, tree plantation etc.
- Contribute the society in term of providing basic education to the poor village children.
- Technical, sports and cultural events organized during Felicific ( Annual University technical and cultural event)
- Regularly organizes photography competition.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- Engaged in Material Testing & Geotechnical Testing and Report.
- Engaged in Environmental Audit of Industries, Structural Design, Quality Audits and Third Party Reviews.
- Faculty members are playing important role in core activities, development and Maintenance work of the University.
- Industrial visits are arranged for both students and faculty to learn contemporary industrial practices. Students are encouraged to go for in-plant training during Sem. VI - summer vacation. Final Year Industrial training is mandatory as per the curriculum.
- Exposure to the students in the field of automation like Hydraulic, Pneumatic, PLC, Sensorics, Mechatronics, Robotics and CNC machine etc. is provided through workshops in association with industries.
- Promoted the students' branches like IETE/CSI/IEEE/ISA/ISHRAE/SAI etc. Many activities are conducted throughout the year for value addition and beyond syllabus learning in form of workshops, expert talks, video shows, seminars and competitions.
- Aptitude training for pre-final year students is arranged in-house to facilitate placements.
- Related content beyond syllabus in each course is pointed out to the students during regular lecture hours. In the laboratory, one or few experiments beyond syllabus are conducted. Students are encouraged to do mini-projects after the regular working hours.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- UG Programmes were accredited by NBA in 1998 & 2008.
- ISO 9001:2008 Certification by ISO-QAR.

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- A novel course on Applied Mathematics for Electronics Engineers is offered in order to enable students to correlate their Mathematical fundamentals with theory and applications.
- Department facilitated number of projects of text book companion, lab migration as

part of FOSSEE programme.

- State of the art topics (as per the latest trends in industry) are introduced during theory and lab hours.
- Laboratories are equipped with latest equipment for imparting practical knowledge to the students.
- Through research and development activities department is contributing in generating new knowledge. The knowledge so generated is published in various journals of internal repute like IEEE, SPRINGER, IET, ELSEVIER, WILEY etc.
- Conducted value addition courses for students through workshop. At the same time, large amounts of Training and up-skilling has been provided to the faculty members.
- A sizable amount of research projects at national and international level are initiated by the faculty members. Some of them are successfully completed.
- The faculty members have attended workshops, QIPs', seminars etc. for updating their knowledge.
- Faculty members are encouraged for qualification up-gradation. As a result, we have witnessed increase in the number of faculty members having PG and Ph.D. qualification.

#### **51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

##### **Strength**

1. Transparent admission process through JACPC and negligible drop outs.
2. Academic autonomy, well designed teaching/learning process, flexibility in curriculum updating process, continuous evaluation system.
3. Well qualified teaching staff with more than 8 years of experience on average and low turn around.
4. Good number of research publications.
5. Good Institute-Industry interaction through industrial consultancy projects and industrial training to B. Tech. students

##### **Weakness**

1. University is located in a semi-urban area, wherein it is difficult to attract good faculties.
2. Inadequate hostel facilities on campus.
3. Unable to fill faculty positions under reserved category due to government policies.
4. Low quantum of research grants acquired from funding agencies.
5. No control on quality of admitted students as admissions are done centrally.

##### **Opportunities**

1. Good opportunity for increasing industrial consultancy and testing services with the help of existing facilities.
2. Opportunity for outreach programmes to nearby industries and institutions.
3. Offering collaborative programmes with industries.
4. Continuing education programmes.
5. Interdisciplinary research work.

## **Challenges**

1. Competition from other nearby institutes.
2. Creating adequate hostel facilities.
3. Carrying out tracer studies of pass out students.
4. Collaborative research with international institutions.
5. Attracting faculties in cutting edge technology areas.

## **52. Future plans of the department.**

- Promoting all round development of students.
- Promoting large number of faculty members for higher studies. Efforts are in the direction to achieve 30% of staff members having Ph.D. qualification in a period of 5 years and 50% Ph.D. within 10 years.
- To increase number of sponsored projects in respective fields of expertise.
- To upgrade laboratories to boost research and development activities in the department.
- Continuous Improvement in Teaching Learning Methodology to impart sufficient practical skill development and exposure to latest tools.
- To enhance student placement by improving their professional and communication skills.
- Establishing Centre of Excellence in 3D printing with CAD/CAM.
- Establishing nodal centre in the field of tribology.
- Establishing laboratory for non-convectional energy sources.
- Promoting Internal Revenue Generation in the Department by carrying out Consultancy Services.



## FACULTY OF DENTAL SCIENCE

1. **Name of the Department**

Faculty of Dental Science

2. **Year of establishment**

2005

3. **Is the Department part of a School/Faculty of the university?**

Yes

4. **Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.)**

UG – Bachelor of Dental Surgery (BDS)

PG – Master of Dental Surgery (MDS)

5. **Interdisciplinary programmes and departments involved**

No

6. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

Nil

7. **Details of programmes discontinued, if any, with reasons**

Nil

8. **Examination System: Annual/Semester/Trimester/Choice Based Credit System**

Annual

9. **Participation of the department in the courses offered by other departments**

Nil

10. **Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)**

Teaching post	Sanctioned	Filled	Actual
Professor	17	17	17
Associate Professor	04	04	17
Assistant Professor	17	17	17
Others	40	40	40

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

<b>Name of Faculty</b>	<b>Qualification</b>	<b>Designation</b>	<b>Specialization</b>	<b>No. of Years of Exp.</b>	<b>No. of Ph.D./M. Phil. / MDS students guided for the last 4 years</b>
Dr. Bimal S. Jathal	MDS	Professor	Periodontia	40	6
Dr. Vasumati Patel	MDS	Professor	Periodontia	20	6
Dr. Shalini Gupta	MDS	Professor	Periodontia	15	6
Dr. Hiral J. Purani	MDS	Asst. Professor	Periodontia	10	6
Dr. Vishal N. Sahayata	MDS	Lecturer	Periodontia	7	0
Dr. Vimal V. Nayak	MDS	Lecturer	Periodontia	7	0
Dr. Anal R. Trivedi	MDS	Lecturer	Periodontia	3	0
Dr. Manthan Solanki	BDS	Tutor	Periodontia	9	0
Dr. Sumit C. Satwara	BDS	Tutor	Periodontia	3	0
Dr. Somil R. Mathur	MDS	Professor	Prosthetics	15	6
Dr. Alkesh V. Shah	MDS	Asso. rofessor	Prosthetics	13	6
Dr. Rakesh G. Makwana	MDS	Asst. Professor	Prosthetics	12	6
Dr. Meena J. Shah	MDS	Asst. Professor	Prosthetics	12	6
Dr. Snehal R. Upadhyay	MDS	Lecturer	Prosthetics	2	0



Dr. Nidhi B. Jathal	MDS	Lecturer	Prosthetics	1	0
Dr. Rajeshwari V. Hebbar	BDS	Tutor	Prosthetics	11	0
Dr. Punit Vora	BDS	Tutor	Prosthetics	8	0
Dr. Naitik R. Modi	BDS	Tutor	Prosthetics	9	0
Dr. Bindi Shah	BDS	Tutor	Prosthetics	7	0
Dr. Dipti M. Choksi	MDS	Professor	Conservative	19	6
Dr. Barkha J. Idnani	MDS	Professor	Conservative	14	6
Dr. Kunjal Mistry	MDS	Asst. Professor	Conservative	11	6
Dr. Nirav J. Parmar	MDS	Lecturer	Conservative	9	6
Dr. Aastha Buch	MDS	Lecturer	Conservative	7	0
Dr. Harita J. Shah	BDS	Tutor	Conservative	5	0
Dr. Dipali M. Chokshi	BDS	Tutor	Conservative	8	0
Dr. Tirath S. Bhatt	BDS	Tutor	Conservative	7	0
Dr. Jitendra K. Rajani	MDS	Professor	Oral Pathology	16	6
Dr. Bhupesh Patel	MDS	Professor	Oral Pathology	14	6
Dr. Jigar M. Purani	MDS	Asso. Professor	Oral Pathology	12	6
Dr. Grishma Doria	MDS	Asst. Professor	Oral Pathology	11	6
Dr. Rina G. Mehta	MDS	Lecturer	Oral Pathology	9	0
Dr. Kinjal D. Rindani	MDS	Lecturer	Oral Pathology	9	0

Dr. Himani Tiwari	MDS	Lecturer	Oral Pathology	5	0
Dr. Darshak K. Shah	BDS	Tutor	Oral Pathology	12	0
Dr. Hiren D. Patel	MDS	Professor	Oral Surgery	19	6
Dr. Haren B. Pandya	MDS	Professor	Oral Surgery	15	6
Dr. Hitesh S. Dewan	MDS	Professor	Oral Surgery	13	6
Dr. Bijal C. Bhavsar	MDS	Asso. Professor	Oral Surgery	12	6
Dr. Urvi A. Shah	MDS	Asst. Professor	Oral Surgery	11	0
Dr. Alka D. Dave	MD	Asst. Professor	Anaesthesia	9	0
Dr. Amish B. Mehta	MDS	Professor	Orthodontia	15	6
Dr. Aakash B. Shah	MDS	Professor	Orthodontia	13	6
Dr. Vimal M. Sharma	MDS	Asst. Professor	Orthodontia	12	6
Dr. Harsh H. Mandal	MDS	Lecturer	Orthodontia	1	6
Dr. Amit Mendiratta	MDS	Lecturer	Orthodontia	3	0
Dr. Viral V. Sakariya	BDS	Tutor	Orthodontia	6	0
Dr. Jyoti S. Mathur	MDS	Professor	Pedodontia	14	0
Dr. Amish Diwanji	MDS	Lecturer	Pedodontia	12	0
Dr. Bhumi U. Sarvaiya	MDS	Lecturer	Pedodontia	4	0
Dr. Dipal Sharma	BDS	Tutor	Pedodontia	9	0
Dr. Priti P. Shah	MDS	Professor	Oral Medicine	12	0

Dr. Mona J. Shah	MDS	Asst. Professor	Oral Medicine	10	0
Dr. Kevin Parikh	MDS	Asst. Professor	Oral Medicine	8	0
Dr. Hetul J. Patel	MDS	Lecturer	Oral Medicine	3	0
Dr. Faiyazkhan Pathan	BDS	Tutor		8	0
Dr. Heena K. Pandya	MDS	Asso. Professor	Public Health Dentistry	12	0
Dr. Jitendra T. Akhani	BDS	Tutor	Public Health Dentistry	8	0
Dr. Soham Dholakia	BDS	Tutor	Public Health Dentistry	8	0
Dr. Hasmukh Buch	BDS, MSc.	Professor	Anatomy	43	0
Dr. Sapana B. Shah	MD	Asst. Professor	Anatomy	5	0
Dr. Vipul I. Shah	MS	Lecturer	Anatomy	11	0
Dr. Falgun J. Shah	MBBS	Lecturer	Anatomy	12	0
Dr. Yogesh Lakhmani	MBBS	Lecturer	Anatomy	8	0
Dr. Jwalit Mehta	MS	Asst. Professor	Physiology	14	0
Dr. Jayshri S. Shah	MS	Lecturer	Physiology	11	0
Dr. I. C. Gandhi	BDS, MSc.	Professor	Gen. Pharmacology	43	0
Dr. Bhavana M. Chauhan	MD	Lecturer	Gen. Pharmacology	12	0
Dr. Snehal U. Desai	MS	Lecturer	Gen. Pharmacology	12	0
Dr. Krupa V. Shah	MBBS	Lecturer	Gen. Pharmacology	9	0
Dr. Dilip D. Dave	MD	Asst. Professor	Gen. Pathology	15	0

Dr. Sachin Shukla	MD	Asst. Professor	Gen. Pathology	12	0
Dr. Kartik R. Patel	MD	Lecturer	Microbiology	11	0
Dr. Daxesh R. Shah	MD	Asst. Professor	Gen. Medicine	14	0
Dr. Tushar Shah	MBBS, DNB	Asst. Professor	Gen. Medicine	11	0
Dr. Mala B. Shah	MD	Lecturer	Gen. Medicine	15	0
Dr. Supreet Prabhu	MS	Asst. Professor	Gen. Surgery	16	0
Dr. Janaki V. Amin	MB, DGO	Lecturer	Gen. Surgery	8	0

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors**

Nil

**13. Percentage of classes taken by temporary faculty – programme-wise information**

Nil

**14. Programme-wise Student Teacher Ratio**

UG – 5.5:1  
PG – 1.3:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Technical Staff : 14  
Administrative Staff : 7

**16. Research thrust areas as recognized by major funding agencies**

Nil

**17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

Nil

**18. Inter-institutional collaborative projects and associated grants received**

Nil

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

Nil

**20. Research facility / centre with**

- **state recognition**

Rashtriya Swasthya Bima Yojna (RSBY) approved centre

- **national recognition**
- **international recognition**

**21. Special research laboratories sponsored by / created by industry or corporate bodies**

Nil

**22. Publications:**

**\*Number of papers published in peer reviewed journals (national / international)**

71

**\* Monographs**

**\*Chapters in Books**

01

**\*Edited Books**

**\*Books with ISBN with details of publishers**

**\*Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)**

20

**23. Details of patents and income generated**

Nil

**24. Areas of consultancy and income generated**

Nil

**25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad (Conference Chairperson / Speaker)**

Dr. B. S. Jathal  
Dr. Amish Mehta  
Dr. Hiren Patel  
Dr. Haren Pandya  
Dr. Jitendra Rajani  
Dr. Jigar Purani  
Dr. Hitesh Dewan  
Dr. Hetul Patel  
Dr. Harshkumar Mandan  
Dr. Urvi Shah  
Dr. Hiral Purani  
Dr. Kevin Parikh  
Dr. Tushar Shah

**26. Faculty serving in**

**b) National committees**

Dr. B.S.Jathal  
Dr. Hiren Patel  
Dr. Somil Mathur  
Dr. Amish Mehta  
Dr. Haren Pandya  
Dr. Hitesh Dewan  
Dr. Jigar Purani

**c) International committees**

**d) Editorial Boards**

Dr. Haren Pandya  
Dr. Somil Mathur

**e) any other (please specify)**

- Dr. Haren Pandya (Reviewer for National Journal of Maxillofacial Surgery)
- Dr. Jigar M. Purani (Reviewer for International Pubmed Indexed Journal "BMJ case reports")
- Dr. Jigar M. Purani (Reviewer for Journal of Health Research and Review)
- Dr. Jigar M. Purani (Reviewer for Journal of International Society of Preventive and Community Dentistry)

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

**List of Faculty Members Attending Seminar/Conferences**

<b>Sr. No.</b>	<b>Name of faculty member</b>	<b>Details of seminar/conferences etc.</b>
1	Dr. Hetul Patel	IDA GSB monsoon convention 2011
2	Dr. Hetul Patel	National PG convention of oral med and radiology
3	Dr. Hetul Patel	CDE programme of Indian association of Public Health Dentistry
4	Dr. Hetul Patel	National OOO symposium 2011
5	Dr. Hetul Patel	CDE program on "specialized radiology for Dental Professionals"
6	Dr. Hetul Patel	CDE program on "Oro facial Pain- a Diagnostic Enigma"
7	Dr. Hetul Patel	CDE programme back to basics
8	Dr. Hetul Patel	Symposium on Potential Malignant Disorders of Oral Cavity
9	Dr. Hetul Patel	National Symposium on "Diagnostic Concept Of Oral & Maxillofacial Lesions"
10	Dr. Hetul Patel	National OOO Symposium 2010
11	Dr. Hetul Patel	National PG convention in Oral Medicine and Radiology 2010
12	Dr. Hetul Patel	Continuing Evidence Based Education Programme On Oro facial Pain held at Sumandeep University
13	Dr. Hetul Patel	Pre conference course on cone beam CT at National Post-Graduate convention 2013 held on 14-16 June 2013 at Sumandeep University, Vadodara
14	Dr. Hetul Patel	National Post-Graduate convention 2013 on Autoimmune diseases of Oro facial region : know more no less!- held on 14-16 June 2013 at Sumandeep University, Vadodara
15	Dr. Hetul Patel	Pre conference course on lasers in oral mucosal lesions at National Postgraduate Convention 2013 held on 14-16 June 2013 at Sumandeep University, Vadodara
16	Dr. Hetul Patel	Pre conference course on Radiographic Interpretation - basic and specialized at National Post-Graduate Convention 2013 held on 14-16 June 2013 at Sumandeep University, Vadodara
17	Dr. Hetul Patel	Pre conference course on forensic dentistry at National Post-Graduate Convention 2013 held on 14-16 June 2013 at Sumandeep University, Vadodara
18	Dr. Hetul Patel	Gujarat Dental show 2013
19	Dr Himani Tiwari	Diagnostic concepts in Oral & Maxillofacial lesions: National Symposium 2010
20	Dr Himani Tiwari	Basics and beyond in Oral and Maxillofacial Surgery: February 2011
21	Dr Himani Tiwari	The route to the roots in Oral Pathology: Jan 2011 Ahmedabad.
22	Dr Himani Tiwari	Interpretation of Histo-Pathologic slides and Oral Ulcers. March 2011. KMSDCH. Vadodara.

23	Dr Himani Tiwari	Back to basics. July 2012. Karnavati School of Dentistry. Gandhinagar.
24	Dr Himani Tiwari	Academic research in Dentistry- why, what and how? Aug 2012 : MPDC, Vadodara.
25	Dr Himani Tiwari	Biomedical research – a step to refinement. Aug 2012; KMSDCH- Vadodara.
26	Dr Himani Tiwari	Slidoscopy 2012; Sept 2012, Karnavati School of Dentistry. Gandhinagar.
27	Dr Himani Tiwari	Oral dysplasia; past –present- future. Dec 2012 KMSDCH, Vadodara.
28	Dr Himani Tiwari	Painting with words; March 2014; KMSDCH, Vadodara.
29	Dr. Hiral J. Purani	Happy Bonding By IDA GSB Monsoon Convention at Vapi On 3rd And 4th July, 2010
30	Dr. Hiral J. Purani	Laser In Dentistry By DPS at Ahmedabad On 18th July, 2010.
31	Dr. Hiral J. Purani	Implantology - Basics And Beyond - CDE By DPS at Ahmedabad On 28th August, 2010.
32	Dr. Hiral J. Purani	Composite Resins Vs. GIC - An Overview - CDE By DPS at Ahmedabad On 26th September, 2010.
33	Dr. Hiral J. Purani	Inter National Conference On Evidence Based Education System at Sumandeep Vidhyapeeth , Vaghodia , On 28 <sup>th</sup> And 29 <sup>th</sup> March, 2011.
34	Dr. Hiral J. Purani	Rotary Endodontics-“ Path For Perfection” at Madhuban Resort, By IDA Kheda Branch On 10 <sup>th</sup> April, 2011.
35	Dr. Hiral J. Purani	Symbiosis 2011 at GDC, Ahmedabad On 17 <sup>th</sup> April, 2011.
36	Dr. Hiral J. Purani	Mastering Composite Artistry-“Creating Masterpieces” at Ahmedabad On 24 <sup>th</sup> April, 2011.
37	Dr. Hiral J. Purani	Pathways To Perfection-Through Flexible Rotary Files at Hotel Platinum Inn, Ahmedabad By DPS On 8 <sup>th</sup> May,2011.
38	Dr. Hiral J. Purani	Dentistry Redefined at Aangan Banquets, By IDA Ahmedabad Branch On 18 <sup>th</sup> And 19 <sup>th</sup> June, 2011.
39	Dr. Hiral J. Purani	Oral Surgery –CDE Programme By DPS at Ahmedabad On 28 <sup>th</sup> August, 2011.
40	Dr. Hiral J. Purani	Perio Explore - 36 <sup>th</sup> National Conference Of Indian Society Of Periodontology at AMA, Ahmedabad On 14-16 <sup>th</sup> October, 2011.
41	Dr. Hiral J. Purani	FAMDENT 2012 at Ahmedabad On 3th And 4 <sup>th</sup> March, 2012.
42	Dr. Hiral J. Purani	FAMDENT 2013 at Ahmedabad On 8-10 <sup>th</sup> February, 2013.
43	Dr. Hiral J. Purani	Preoperative Medical Evaluation And Postoperative Management Of Patients at FDS, DDU, Nadiad On 5 <sup>th</sup> October, 2013.
44	Dr. Hiral J. Purani	Golden Jubilee Celebration at GDC, Ahmedabad On 14 <sup>th</sup> And 15 <sup>th</sup> Of December, 2013.
45	Dr. Jigar M. Purani	Laser In Dentistry By DPS at Ahmedabad On 18th July, 2010.



46	Dr. Jigar M. Purani	Implantology - Basics And Beyond - CDE By DPS at Ahmedabad On 28th August, 2010.
47	Dr. Jigar M. Purani	Composite Resins Vs. GIC - An Overview - CDE By DPS at Ahmedabad On 26th September, 2010.
48	Dr. Jigar M. Purani	The Route Of Roots In Oral Pathology at Ahmedabad Dental College On 30 <sup>th</sup> January,2011
49	Dr. Jigar M. Purani	Inter National Conference On Evidence Based Education System at Sumandeep Vidhyapeeth, Vaghodia, On 28 <sup>th</sup> And 29 <sup>th</sup> March, 2011.
50	Dr. Jigar M. Purani	Rotary Endodontics-“ Path For Perfection” at Madhuban Resort, By IDA Kheda Branch On 10 <sup>th</sup> April, 2011.
51	Dr. Jigar M. Purani	Mastering Composite Artistry-“Creating Masterpieces” at Ahmedabad On 24 <sup>th</sup> April, 2011.
52	Dr. Jigar M. Purani	Pathways To Perfection-Through Flexible Rotary Files at Hotel Platinum Inn, Ahmedabad By DPS On 8 <sup>th</sup> May,2011.
53	Dr. Jigar M. Purani	Dentistry Redefined at Aangan Banquets, By IDA Ahmedabad Branch On 18 <sup>th</sup> And 19 <sup>th</sup> June, 2011.
54	Dr. Jigar M. Purani	Cutting Edge – Thinking Beyond Surgical Margin – Convention – at Manipal Dental College And Hospital, Manipal On 9 <sup>th</sup> -10 <sup>th</sup> July,2011.
55	Dr. Jigar M. Purani	Oral Surgery –CDE Programme By DPS at Ahmedabad On 28 <sup>th</sup> August, 2011.
56	Dr. Jigar M. Purani	Oral Oncology – CDE Programme By DPS at Ahmedabad On 16 <sup>th</sup> October, 2011.
57	Dr. Jigar M. Purani	FAMDENT 2012 at Ahmedabad On 3th And 4 <sup>th</sup> March, 2012.
58	Dr. Jigar M. Purani	Back To Basic – CDE Programme By Karnavati School Of Dentistry at Uvarsad On 24 <sup>th</sup> July, 2012.
59	Dr. Jigar M. Purani	Slidoscopy 2012 By Karnavati School Of Dentistry On 23 <sup>rd</sup> September, 2012.
60	Dr. Jigar M. Purani	XII Post Graduate National Convention Of Indian Association Of Oral and Maxillofacial Pathologists at D.Y. Patil Dental College And Hospital at Pune On 14 <sup>th</sup> -15 <sup>th</sup> July, 2012.
61	Dr. Jigar M. Purani	Oral Dysplasia – Past-Present –Future – CDE Programme By K.M. Shah Dental College And Hospital On 1 <sup>st</sup> December,2012.
62	Dr. Jigar M. Purani	Preoperative Medical Evaluation And Postoperative Management Of Patients at FDS, DDU, Nadiad On 5 <sup>th</sup> October, 2013.
63	Dr. Jigar M. Purani	Research Methodology Workshop By GMC Cardiothoracic And Vascular Research Society at Nadiad On 7 <sup>th</sup> April,2013
64	Dr. Jigar M. Purani	Golden Jubilee Celebration at GDC, Ahmedabad On 14 <sup>th</sup> And 15 <sup>th</sup> Of December,2013.
65	Dr. Jigar M. Purani	FAMDENT show Dental convention at Ahmedabad on 8-9 February, 2013.

66	Dr. Jigar M. Purani	Oral Cancer Detection To Comprehensive Management FDS, DDU, Nadiad On 30 <sup>th</sup> November, 2013.
67	Dr. Jigar M. Purani	Endodontic Panorama – CDE Programme By DPS at Ahmedabad On 19 <sup>th</sup> January, 2014.
68	Dr. Jigar M. Purani	Painting With Words at K.M. Shah Dental College And Hospital, Vadodara On 29 <sup>th</sup> March, 2014.
69	Dr. Jigar M. Purani	Expertise Interactive Learning: It's All About Veneers Held at Ahmedabad On 3 <sup>rd</sup> August 2014.
70	Dr. Jigar M. Purani	XXIII National Conference Of Indian Association Of Oral and Maxillofacial Pathologists On Oral and Maxillofacial Pathology Through A Kaleidoscope at Bangalore, Karnataka, 28 <sup>th</sup> November, 2014.
71	Dr. Jigar M. Purani	Forensic Odontology: From Evidence To Verdict at K.M. Shah Dental College And Hospital, Vadodara On 31 <sup>st</sup> January, 2015
72	Dr. Jigar M. Purani	Xv National post graduate convention of Indian association of Oral and Maxillofacial pathologists at Vadodara on 11-12 July, 2015.
73	Dr. Jigar M. Purani	Happy Bonding By IDA GSB Monsoon Convention at Vapi On 3 <sup>rd</sup> And 4 <sup>th</sup> July, 2010
74	Dr. Jitendra Akhani	Perio-scan at faculty of Dental Science, DDU, Nadiad
75	Dr. Jitendra Akhani	Dentica at Ahmedabad
76	Dr. Jitendra Akhani	Sterilization and infection control at town hall, Ahmedabad 2009
77	Dr. Jitendra Akhani	FAMDENT show-2013 at Ahmedabad
78	Dr. Jitendra Akhani	1 <sup>st</sup> Gujarat Dental Show at Ahmedabad-2013
79	Dr. Jitendra Akhani	2 <sup>nd</sup> Gujarat Dental Show at Ahmedabad-2014
80	Dr. Sapana Shah	5 <sup>th</sup> GUJCON 2010, Ahmedabad
81	Dr. Sapana Shah	6 <sup>th</sup> GUJCON 2011, Bhavnagar
82	Dr. Sapana Shah	58 <sup>th</sup> NATCON 2010, Pune
83	Dr. Sapana Shah	59 <sup>th</sup> NATCON 2011, Indore
84	Dr. Tushar h. Shah	Attended workshop as delegate on hemodynamic monitoring , Apollo hospital , Ahmedabad
85	Dr. Tushar h. Shah	Attended respiratory update as delegate , ASHRAI associates
86	Dr. Tushar h. Shah	Attended CRITICON as delegate Baroda
87	Dr. Tushar h. Shah	Attended hematology update as delegate ; IMA , Vadodara
88	Dr. Tushar h. Shah	Attended mega diabetes conclave as delegate, association of physician of Ahmedabad
89	Dr. Tushar h. Shah	Attended critical care update as delegate, ASHRAI associates
90	Dr. Tushar h. Shah	CME in rheumatology , rheumatology association – Gujarat
91	Dr. Tushar h. Shah	Attended rheumatology – respiratory update as delegate , association of physician, Baroda

92	Dr.Tushar h. Shah	Attended tuberculosis unlocked as delegate Ashraicon , 2014
93	Dr.Tushar h. Shah	Participated joint Inter National conference as faculty – GMERS Medical College , Sola , Ahmedabad
94	Dr. Sumit Satwara	21st February,2010 Variation Oral Surgery, Basic Orthodontics, IDA Kheda Branch.
95	Dr. Sumit Satwara	17th April,2010 Predictable Fixed Prosthodontics, IDA Kheda Branch.
96	Dr. Sumit Satwara	3 <sup>rd</sup> & 4 <sup>th</sup> July,2010 IDA GSB Monsoon Convention, Daman.
97	Dr. Sumit Satwara	10 <sup>th</sup> April,2011 Rotary Endodontics-Path For Perfection, IDA Kheda Branch.
98	Dr. Sumit Satwara	Advanced Cosmetic Dentistry, Nadiad.
99	Dr. Sumit Satwara	23 <sup>rd</sup> & 24 <sup>th</sup> February,2013 Gujarat Dental Show, YMCA, Ahmedabad.
100	Dr. Sumit Satwara	5 <sup>th</sup> Oct,2013 Pre-Operative Medical Evaluation & Post-Operative Management Of Patients, DDU, Nadiad.
101	Dr. Bijal Bhavsar	3 <sup>rd</sup> Annual Conference AOMSI, Gujarat Chapter, Udaipur 19 <sup>th</sup> – 20 <sup>th</sup> Sep, 2013
101	Dr. Bijal Bhavsar	2 <sup>nd</sup> Annual Conference AOMSI, Gujarat Chapter, Nadiad 3 <sup>rd</sup> – 4 <sup>th</sup> Nov, 2012
102	Dr. Bijal Bhavsar	39 <sup>th</sup> National Conference AOMSI, Goa, 14 <sup>th</sup> To 16 <sup>th</sup> Nov 2014
103	Dr. Bijal Bhavsar	5 <sup>th</sup> Annual Conference AOMSI, Mount Abu, 22 <sup>nd</sup> – 23 <sup>rd</sup> Aug, 2015
104	Dr. Chintan Thakkar	2 <sup>nd</sup> Annual Conference AOMSI, Gujarat Chapter, Nadiad 3 <sup>rd</sup> – 4 <sup>th</sup> Nov, 2012
105	Dr. Haren Pandya	1 <sup>st</sup> Annual Conference AOMSI, Gujarat Chapter, Saputara, Sep 2011
106	Dr. Haren Pandya	2 <sup>nd</sup> Annual Conference AOMSI, Gujarat Chapter, Nadiad 3 <sup>rd</sup> – 4 <sup>th</sup> Nov, 2012
107	Dr. Haren Pandya	3 <sup>rd</sup> Annual Conference AOMSI, Gujarat Chapter, Udaipur 19 <sup>th</sup> – 20 <sup>th</sup> Sep, 2013
108	Dr. Haren Pandya	4 <sup>th</sup> Annual Conference AOMSI, Gujarat Chapter, Silvassa, 20 <sup>th</sup> – 21 <sup>st</sup> Sep, 2014
109	Dr. Haren Pandya	Soft & Hard Tissue Management , Goa, 3 <sup>th</sup> – 5 <sup>th</sup> Oct 2014, Goa
110	Dr. Haren Pandya	39 <sup>th</sup> National Conference AOMSI, Goa, 14 <sup>th</sup> To 16 <sup>th</sup> Nov 2014
111	Dr. Haren Pandya	Rehabilitation, Israel, 16 <sup>th</sup> – 20 <sup>th</sup> Aug 2015

112	Dr. Haren Pandya	5 <sup>th</sup> Annual Conference AOMSI, Mount Abu, 22 <sup>nd</sup> – 23 <sup>rd</sup> Aug, 2015
113	Dr. Hitesh Dewan	Nobel Biocare Symposium, Los Angeles, USA, June 2011
114	Dr. Hitesh Dewan	1 <sup>st</sup> Annual Conference AOMSI, Gujarat Chapter, Saputara, Sep 2011
115	Dr. Hitesh Dewan	Inter National Implant Symposium, Tokyo, Japan, Oct -2012
116	Dr. Hitesh Dewan	2 <sup>nd</sup> Annual Conference AOMSI, Gujarat Chapter, Nadiad 3 <sup>rd</sup> – 4 <sup>th</sup> Nov, 2012
117	Dr. Hitesh Dewan	Nobel Biocare global symposium, New York, USA, Aug 2013
118	Dr. Hitesh Dewan	3 <sup>rd</sup> Annual Conference AOMSI, Gujarat Chapter, Udaipur 19 <sup>th</sup> – 20 <sup>th</sup> Sep, 2013
119	Dr. Hitesh Dewan	Zygomatic Implants workshop, Chennai, Oct – 2013
120	Dr. Hitesh Dewan	4 <sup>th</sup> Annual Conference AOMSI, Gujarat Chapter, Silvasa, 20 <sup>th</sup> – 21 <sup>st</sup> Sep, 2014
121	Dr. Hitesh Dewan	37 <sup>th</sup> Annual National Conference & Preconference Workshop On Zygomatic Implants, AOMSI, 29 <sup>th</sup> Nov – 1 <sup>st</sup> Dec, Hyderabad,
122	Dr. Hitesh Dewan	Alveolar distraction course, July – 2015, Singapore
123	Dr. Hitesh Dewan	5 <sup>th</sup> Annual Conference AOMSI, Mount Abu, 22 <sup>nd</sup> – 23 <sup>rd</sup> Aug, 2015
124	Dr. Kinjal Rindani	Oral Oncology, DPS 2011
125	Dr. Kinjal Rindani	The route to the roots in ors Al pathology, ADC,2011
126	Dr. Kinjal Rindani	Back to basic , IORRG, 2012
127	Dr. Kinjal Rindani	Slidoscopy, KSD,2012
128	Dr. Kinjal Rindani	FAMDENT show 2013
129	Dr .Rina Mehta	Diagnostic Concepts In Oral and Maxillofacial Lesions: National Symposium:2010k.M. Shah Dental Collage ,Sumandeep Vidhyapeeth ,Vadodara 30 <sup>th</sup> Sept 2010
130	Dr .Rina Mehta	Workshop Diagnostic Concepts In Oral and Maxillofacial Lesions : National Symposium: 2010 K.M. Shah Dental Collage, Sumandeep Vidhyapeeth, Vadodara 1 <sup>st</sup> Oct 2010
131	Dr .Rina Mehta	“The Route To The Roots In Oral Pathology” CDE Programme Ahmedabad Dental Collage And Hospital 30 <sup>th</sup> Jan 2011
132	Dr .Rina Mehta	Inter National Symposium On Anterior And Posterior Composite, Mini Implants And Sedation In Dentistry -2011 Govt. Dental Collage And Hospital , Ahmedabad . 16-19 <sup>th</sup> March, 2011( CHIF –Confederation Of Indian Healthcare Foundation)
133	Dr .Rina Mehta	CDE programme oral oncology DPS Ah’d 16/10/2011
134	Dr .Rina Mehta	Thinking beyond surgical margins National post graduate convention -2011 IAOMP, Manipal University
135	Dr .Rina Mehta	12 <sup>th</sup> National PG Convention Of IAOMP, D Y Patil Dental Collage & Hospital ,Pune14 <sup>th</sup> -15 <sup>th</sup> July-2012

136	Dr .Rina Mehta	Ioprg- CDE Programme ‘Back To Basics’ 29 <sup>th</sup> July -2012 Karnavati Knowledge Village, Karnavati School Of Dentistry, Uvarsad , Gandhinagar
137	Dr .Rina Mehta	Slidoscopy –2012 CDE Programme Karnavati Knowledge Village, Karnavati School Of Dentistry, Uvarsad , Gandhinagar 23 <sup>rd</sup> Sep-12
138	Dr .Rina Mehta	CDE Programme, K. M.. Shah Dental Collage, Vadodara Oral Dysplasia :Past –Present And Future 1 <sup>st</sup> Dec 2012
139	Dr .Rina Mehta	Scientific Paradigm: CDE Programme- Manubhai Patel Dental Collage -2014 16 <sup>th</sup> February 2014
140	Dr .Rina Mehta	CDE programme: “painting with words” K.M. Shah Dental Collage and Hospital, Sumandeep Vidhyapeeth, Piparia, Vaghodia , Vadodara , 391760 29 <sup>th</sup> March -2014
141	Dr .Rina Mehta	15 <sup>th</sup> National Post-Graduate Convention Indian Association Of Oral and Maxillofacial Pathologists - 2015 K.M.Shah Dental Collage And Hospital , Vadodara, Gujarat 11 <sup>th</sup> And 12 <sup>th</sup> July-2015
142	Dr. Shirish Shah	2 <sup>nd</sup> Annual Conference AOMSI, Gujarat Chapter, Nadiad 3 <sup>rd</sup> – 4 <sup>th</sup> Nov, 2012

## 28. Student projects

- **percentage of students who have done in-house projects including inter-departmental projects**

25% (M.D.S. Dissertations + Community Projects)

- **percentage of students doing projects in collaboration with other universities / industry / institute**

Nil

## 29. Awards / recognitions received at the national and international level by

- **Faculty**

Dr. Kevin Parikh

Best performance award for scientific quiz programme held at scientific session of XIX national conference of IAOMR held at Chennai.

- **Doctoral / post-doctoral fellows**
- **Students**

**30. Seminars/Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

- Extra oral maxillofacial prosthesis - 50 Participants
- Laboratory Steps for cast partial denture framework fabrication - 50 participants
- Prosthetic options in implant dentistry - 70 participants
- Dental Implant options in Bone Deficient Situations - 90 Participants
- Mission Smiles – An Introduction to Aesthetic Dentistry - 75 Participants
- An Introduction to Dental Implants - 60 Participants
- Direct Composites – Unlocking the Mystery - 150 participants

**31. Code of ethics for research followed by the departments**

Faculty of dental Science follows the ADA code of Ethics. According to ADA code of Ethics, the Principles of Ethics are the inspirational goals of the profession. They provide guidance and offer justification for the Code of Professional Conduct and the Advisory Opinions. There are five fundamental principles that form the foundation of the ADA Code.

1. Patient Autonomy (“self-governance”)
2. Nonmaleficence (“do no harm”)
3. Beneficence (“do good”)
4. Justice (“fairness”)
5. Veracity (“truthfulness”)

Principles may at times need to be balanced against each other, but, otherwise, they are the profession’s firm guideposts

**32. Student profile programme-wise:**

UG Admissions through Admission Committee for Professional Medical Educational Courses

PG

Name of the Programme (refer to question no. 4)	Applications received	Selected		Pass percentage	
		Male	Female	Male	Female
MDS	53	5	10	100%	100%

**33. Diversity of students**

Name of the Programme (refer to question no. 4)	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
MDS	60	13	27	0

34. **How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

Not Available

35. **Student progression**

<b>Student progression</b>	<b>Percentage against enrolled</b>
<b>UG to PG</b>	<b>30%</b>
<b>PG to M.Phil.</b>	<b>Not Known</b>
<b>PG to Ph.D.</b>	<b>Not Known</b>
<b>Ph.D. to Post-Doctoral</b>	<b>Not Known</b>
<b>Employed</b>	<b>50%</b>
<b>Campus selection</b>	<b>-</b>
<b>Other than campus recruitment</b>	<b>45%</b>
<b>Entrepreneurs</b>	<b>50%</b>

36. **Diversity of staff**

<b>Percentage of faculty who are graduates</b>	<b>Percentage of Total</b>
of the same university	80%
from other universities within the State	5%
from universities from other States from	15%
universities outside the country	--

37. **Number of faculty who were awarded M.Phil, Ph.D., D.Sc. and D. Litt. During the assessment period**

Nil

38. **Present details of departmental infrastructural facilities with regard to**

- a. **Library**  
2948 books  
52 Journals (13 Indian + 39 Inter National)
- b. **Internet facilities for staff and students**  
42 MBps for both
- c. **Total number of class rooms**  
04
- d) **Class rooms with ICT facility**  
04

e) **Students' laboratories**  
07

f) **Research laboratories**  
06 for M.D.S. students

**39. List of doctoral, post-doctoral students and Research Associates  
(M.D.S. Students)**

**a. from the host institution/university**

Dr. Shaswat Dewan  
Dr. Pankaj Hotchandani  
Dr. Enosh Steward  
Dr. Parth Shah  
Dr. Shripal Jani  
Dr. Nisarg Patel  
Dr. Vijeta Patel  
Dr. Jesal Amin  
Dr. Urshita Jikar  
Dr. Meghna Jani  
Dr. Ronak Modh  
Dr. Pankti Naik  
Dr. Mudrika Patel  
Dr. Ravina Patel  
Dr. Tanna Nirali  
Dr. Ripal Shah  
Dr. Ameer Patel

**b. from other institutions/universities**

Dr. Khushali Patel  
Dr. Rohan Khedkar  
Dr. Kinjal Gabani  
Dr. Sagar Patel  
Dr. Ritu Doshi  
Dr. Chandni Nayak  
Dr. Megha Modi  
Dr. Bhargav Naik  
Dr. Shivangini Zala  
Dr. Ghoghari Vatsal  
Dr. Lavina Jagtiani  
Dr. Tanu Srivastava  
Dr. Ajaz Goplani  
Dr. Ahsay Shah  
Dr. Ghanshyam patel  
Dr. Sanju Patel  
Dr. Aashka Shah  
Dr. Archin Vora  
Dr. Ami Rawal  
Dr. Darshan Mehta



Dr. Maharshi patel  
Dr. Prerak Velani  
Dr. Shivani Shah  
Dr. Swapnil Chandratre  
Dr. Suraj lolitkar

**40. Number of post graduate students getting financial assistance from the university.**

Nil

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

- Opinions and suggestions from Other academicians, Employers, and Industries were obtained.
- Benchmarking syllabus with DCI Guidelines and similar programmes offered by Other Universities.
- All the inputs given by stakeholders were placed in the BoS. These suggestions are considered when framing the curriculum and syllabi for a new Programme.
- Report approved by BoS is submitted to the academic council.

During the assessment period M.D.S. in six specialities is started, as mentioned below.

Prosthodontics and crown & Bridge  
Orthodontics  
Oral and Maxillofacial Surgery  
Periodontics  
Oral Pathology and Microbiology  
Conservative Dentistry and Endodontics

**42. Does the department obtain feedback from**

**i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?**

Feedback is taken through Departmental Meetings. Feedback is evaluated by head of the department and sent to respective Dean and corrective measures, if required, are taken.

**ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?**

Feedback is collected through blind Online Feedback System. Students can give feedback without disclosing their identity. Feedback is evaluated by head of the department and sent to respective faculty members and corrective measures, if required, are taken.

**iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?**

No

**43. List the distinguished alumni of the department (maximum 10)**

Less than five year for first batch of students passed out.

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- Extra oral maxillofacial prosthesis
- Laboratory Steps for cast partial denture framework fabrication
- Prosthetic options in implant dentistry
- Dental Implant options in Bone Deficient Situations
- Mission Smiles – An Introduction to Aesthetic Dentistry
- An Introduction to Dental Implants
- Direct Composites – Unlocking the Mystery

**45. List the teaching methods adopted by the faculty for different programmes.**

Interactive Teaching Learning Methodology  
Use of OHP and Multimedia Projector

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- Top performance of students in competitive exams
- Preference is given to DDU graduates by Private Dentist for associate Dentist post.
- Subject wise result analysis and Overall Result

**47. Highlight the participation of students and faculty in extension activities.**

- Approx. 80-100 Dental Camps every year.
- Adoption of Village for Dental treatment.
- One satellite centre at Uttarsanda.

**48. Give details of “beyond syllabus scholarly activities” of the department.**

- Department has established “Dr. H. M. Desai oral cancer detection/ counselling centre” in which patients of oral pre-cancer and cancer as well as patients with various tobacco/areca nut related habits are counselled with audio-visuals, charts, models etc. Detection of oral pre-cancer and cancer done with advanced diagnostic aids.
- Department has established a Medical OPD to treat medical conditions of poor patients of Nadiad and nearby areas free of charge.

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

DCI recognized  
Recognized centre for RSBY by Gujarat Government

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- State of the Art topics are introduced during theory and Practical hours
- Papers and Posters are presented in National And International conferences
- Faculties attending National And International conferences for gaining latest knowledge
- Conducting value addition courses through workshop / Seminars

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

**Strength**

1. Faculty commitment to teaching and treatment
2. Transparent Administration
3. Good Infrastructure, Latest Equipment
4. Very Good OPD Flow
5. Academic autonomy, well designed teaching/learning process, flexibility in curriculum updating process, continuous evaluation system.

**Weakness**

1. No control on quality of admitted students as admissions are done centrally.
2. Location: city is quite small as compared to the four major cities of the state, which impacts faculty and student preferences.
3. Too high expectations for exam remuneration by external examiners
4. Inadequate hostel facilities on campus.
5. Low quantum of research paper publications.

**Opportunities**

1. Expansion of social out rich programme for dental hygiene awareness Good opportunity for increasing industrial consultancy and testing services with the help of existing facilities.
2. Introduction of Ph.D. Programme
3. MOU with foreign University / Student Exchange Programme
4. Conduct National & International Scientific Programme / Workshops / Seminars
5. Starting of Cleft Lip & Cleft Palate Centre

**Challenges**

1. Competition from other nearby institutes.
2. Creating adequate hostel facilities
3. Carrying out tracer studies of pass out students
4. Collaborative research with international institutions
5. Evolution of personalized medicine approach Attracting faculties in cutting edge technology areas

## **52. Future plans of the department.**

- Up gradation of syllabus including topics and methods which are presently not in syllabus.
- Up gradation of teacher's teaching skills by arranging Teacher's training programme every year.
- Up gradation of clinical skills of students by providing newer equipments.
- Planning to start full fledged Cancer Centre, Trauma centre and Cleft lip and palate centre.
- Identification of more villages, centres and schools for social services.
- Tobacco de-addiction centre development and to include more number of students and faculties for de-addiction camp outside college.
- University is planning to send staff members for further training in the field of oral rehabilitation and oral plastic surgery.
- Further development of medical OPD
- Planning to organise 5 pre conference courses during the annual national conference of Oral surgery in November 2016.
- Planning to start post graduation course (M.D.S. course) in the speciality of Pedodontics.

## FACULTY OF PHARMACY

**1. Name of the Department :**

Faculty of Pharmacy

**2. Year of establishment:**

2006

**3. Is the Department part of a School/Faculty of the university?**

Yes

**4. Names of programmes offered:**

B. Pharm, M. Pharm and Ph. D.

**5. Interdisciplinary programmes and departments involved:**

None

**6. Courses in collaboration with other universities, industries, foreign institutions:**

None

**7. Details of programmes discontinued, if any, with reasons:**

None

**8. Examination System:**

Semester System

**9. Participation of the department in the courses offered by other departments:**

None

**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)**

<b>Post</b>	<b>Sanctioned</b>	<b>Filled</b>	<b>Actual</b>
<b>Professor</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Associate Professors</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Assistant Professors</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Others</b>			

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./ M.Phil. students guided for the last 4 years
Dr B. N. Suhagia	Ph. D.	Dean	Pharmaceutical Chemistry	41.00	10 (M. Pharm) 10 (Ph. D)
Dr T. G. Soni	Ph. D	Professor	Pharmaceutics and Pharmaceutical Technology	14.00	10 (M. Pharm) 01 (Ph. D.)
Dr M. N. Patel	Ph. D	Associate Professor	Pharmaceutics and Pharmaceutical Technology	9.50	10 (M. Pharm)
Dr T. B. Patel	Ph. D	Assistant Professor	Pharmaceutics and Pharmaceutical Technology	9.50	09 (M. Pharm)
Dr Vipu Patel	Ph. D	Assistant Professor	Pharmaceutics and Pharmaceutical Technology	14.00	27 (M. Pharm) 04 (Ph. D.)
Dr S. P. Chauhan	Ph. D	Associate Professor	Pharmaceutical Chemistry	9.50	7 (M. Pharm)
Dr R. B. Maradia	Ph. D	Assistant Professor	Pharmaceutical Chemistry	9.50	7 (M. Pharm)
Mr T R. Patel	M. Pharm	Assistant Professor	Pharmaceutical Chemistry	9.50	7 (M. Pharm)
Mr J. R. Upadhyay	M. Pharm	Assistant Professor	Pharmaceutical Chemistry	7.00	
Mr V. T. Prajapati	M. Pharm	Assistant Professor	Pharmaceutical Chemistry	7.30	
Mrs M. A. Patel	M. Pharm	Assistant Professor	Pharmacognosy	8.20	
Mrs. Carol P. Macwan	M. Pharm	Assistant Professor	Pharmacognosy	7.30	
Mr N. G. Patel	M. Pharm	Assistant Professor	Pharmacology	3.30	
Miss U. V. Gohil	M. Pharm	Assistant Professor	Pharmacology	3.10	

**12. List of senior Visiting Fellows, adjunct faculty, emeritus professors:**

None

**13. Percentage of classes taken by temporary faculty – programme-wise information:**

Nil

**14. Programme-wise Student Teacher Ratio:**

13:1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

Category	Sanctioned	Filled	Actual
Administrative Staff	01	01	01
Technical Staff	03	03	03

**16. Research thrust areas as recognized by major funding agencies:**

Formulation Development,  
Nanotechnology based drug delivery,  
Analytical techniques development and validation,  
Phytochemical isolation & characterization,  
Herbal drug standardization,  
Pharmacological and toxicological study

**17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

Sr. No	Title of Project	Funding Agency	Amount in INR Lakhs
1	Designing a reflecting light microscope for 3D imaging of thick and irregular surface	DST	80.750
2	Synthesis, Characterization, Cytotoxicity and burn wound healing potential of antifungal loaded silver nanoparticle hydrogel for burn infections	BIRAC	49.700
3	Development and evaluation of Herbal Anti- aging cream formulation	IEDC	1.000
4	A study on particle engineering on poorly compressible pharmaceutical material by dry particle coating using lab scale mist generator	IEDC	0.800
5	Development of novel woman's friendly antifungal microemulsion loaded gel of tree tea oil-curcumin-alkylpolyglucoside	IEDC	0.800
6	Formulation and evaluation of microemulsion based delivery system for <i>Boswelliaserrata</i>	GUJCOST	4.500

7	Clinical evaluation of beet root and prickly pear in the management of anemia: A Randomized Clinical Trial	GUJCOST	7.250
8	Development and optimization of Herbal Formulation for the treatment of Diabetes Mellitus	GUJCOST	7.700
9	Evaluation of cardioprotective activity of <i>Corchorusaestuans L.</i> against isoproterenol induced myocardial infarction in rats.	GUJCOST	4.700
10	In-vitro pharmacological evaluation of anti cancer activity of colon targeted pH dependent polysaccharide microsphere containing capecitabin using cell lines	GUJCOST	0.225
11	Design and characterization of a pH dependent polysaccharide based microsphere for the colon targeted delivery of capecitabin for colorectal cancer therapy	GUJCOST	0.153

**18. Inter-institutional collaborative projects and associated grants received:**

None

**19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.**

Grant received under Project from DST : 80,75,980 Rs  
Grant received under Project from BIRAC : 49, 70,000 Rs  
Grant received under IEDC Project from DST : 2, 60,000 Rs  
Grant received under GUJCOST : 35, 32,826 Rs

**20. Research facility / centre with:**

None

**21. Special research laboratories sponsored by / created by industry or corporate bodies:**

None

**22. Publications:**

**National Journal** : 24  
**National Conference** : 55  
**International Journal** : 70  
**International Conference** : 10  
**Books** : 05  
: 5



**Monograph**

**Chapter : 02**

**Edited : -**

**Listed in International Database : 06**

**Book Details**

Author	Book Title	ISBN No	Publisher	Year
Dr. B. N. Suhagia, Dr. N. P. Jivani, Dr. C.N. Patel	Inorganic Pharamceutical Chemistry	978-93-82514-04-6	Thakur Publication	2013
Dr. B. N. Suhagia, Dr. N. P. Jivani, Dr. C.N. Patel	Pharmaceutical Chemistry- IV (Organic Chemistry-I)	978-93-82249-35-1	Thakur Publication	2013
Dr Tejas. B. Patel	Studies in development of fluid bed granulation technique for Diclofenac Sodium	978-3-847-2800-1	Lambert Academic Publishing	2011
Dr. S. P. Chauhan	Phytochemical Composition & Pharmacological Action of Opuntia Species: A Review	978-3-8465-1588-4	Lambert Academic Publishing	2012
Priya patel, Tejal Soni	Nanoparticle For Pulmonary Drug Delivery System	978-3659417337	Lambert Academic Publishing	2013

**23. Details of patents and income generated:**

None

**24. Areas of consultancy and income generated:**

Sr. No.	Year	Name of company	Title of project	Amount generated in INR
1	2014	Vasu Health Care Pvt. Ltd. Vadodara	Development and Evaluation of Poly-Herbal Granules for Treatment of Asthma	9000
2	2014	Ms. Prachi Patel	Formulation, development and evaluation of bioadhesive drug delivery system containing selected phytopharmaceuticals	25000

**25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad:**

None

## 26. Faculty serving in

a) National committees b) International committees c) Editorial Boards d) any other (please specify):

01 Dr. B.N. Suhagia nominated as a member of Homeopathic Pharmacopeial Committee

## 27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

Sr. No.	Name of Faculty member	Duration	Organized by
1	Dr Tejas B Patel	21st may to 3rd June, 2012	AICTE Sponsored Staff Development Programme Ali-alana college of Pharmacy, Akkalkuwa, Dis: Nandurbar, M.S, India
2	Dr Tejas B Patel	20th march to 2nd April, 2012	AICTE Sponsored Staff Development Programme Shri Sarvajani College of Pharmacy, Mehsana
3	Dr Tejas B Patel	14-18 October, 2014	One Week Workshop Faculty of Pharmacy, Dharmsinh Desai University, Nadiad
4	Dr Sanjay P. Chauhan	6 days	AICTE sponsored Quality Improvement Program 2010 at Pharmacy Department, Faculty of Tech. & Engg, The M. S. University, Baroda.
5	Mr. Tushar R Patel	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
6	Dr. Rajnikant Mardia	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
7	Mrs. Mayuree Patel	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
8	Mrs. Carol P Mackwan	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
9	Dr. Mehul N Patel	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
10	Mr. Vipul T Prajapati	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
11	Mr. Jagat R Upadhyay	5 days (October 14-18, 2014)	Faculty of Pharmacy, Dharmsinh Desai University
12	Ms. Unnati V Gohil	Two weeks, June 2014	Manipal College of Pharmaceutical sciences, Manipal University on theme "Management of innovative drug development".

## 28. Student projects:

- percentage of students who have done in-house projects including inter-departmental projects:

80 % in PG

- percentage of students doing projects in collaboration with other universities / industry / institute:

20% in PG

**29. Awards / recognitions received at the national and international level by:**

**Award Received By Faculty:**

1. Dr. B. N. Suhagia Awarded “ Out Standing achievement award by Association of Pharmacy Professionals (APP) on 17<sup>th</sup> march, 2013 at Chandwad, Nasik.
2. Dr. Tejas B Patel Awarded “ Best Oral Presentation” Award research paper entitled” Development of surgical dressing coated with chitosan-silver nanoparticles composite for burn wound healing” at APP 2nd Annual Convention, SSDJ College of Pharmacy, Chandwad, Nasik, M.S on 17<sup>th</sup> march, 2013.

**30. Seminars/Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.**

Sr. No.	Title of seminar/conference	Supported by/Sponsored by	Year	Amount Received in INR
1	Dissolution Enhancement Techniques	DDU	2010	50,000
2	Nanocarriers: Novel Tool As Drug Delivery System	GUJCOST	2013	35,000
3	3 <sup>rd</sup> APP national convection	APP	2014	1,00,000
4	Medical health & self defence mechanisms for women better health and wealth	GUJCOST	2015	50,000
5	Carrier counselling and importance of women education	DTE	2015	45,000
6	Recent advancement in Biotechnology & Bioinformatics	GSBTM	2012	40,000
7	Training & Hands on Molecular Biotechnology Tools and Techniques	DBT	2013	50,000
8	Hands on Animal Cell Culture Technique: Application in Cellular Biotechnology	DBT	2013	75,000
9	Popular Lecture series	DBT	2014	24,000
10	Molecular and Microbial Biotechnology Tools & Techniques	DBT	2015	50,000
11	In-Vitro Biological Models & Their applications in Drug discovery	DBT	2015	30,000
12	Popular Lecture Series	DBT	2015	71,000

**31. Code of ethics for research followed by the departments:**

The Faculty of Pharmacy ensuring the ethics and etiquettes by motivating students as well as faculty to holistically follow the code of ethics for any research work carried out within the department and outside the department. Plagiarism check and citation referencing have been taken care well. Some of M. Pharm. projects are carried out in industry and it is carried out under the supervision of external Industrial guides / Research Centre at their premises and continuous monitoring and reporting at department level by internal faculty members and this act as a bridge between industry and institute to serve better social needs.

**32. Student profile programme-wise:**

Programme	Admitted		Pass	
	Male	Female	Male	Female
UG	06	18	06	18
PG	05	09	05	09

**33. Diversity of students:**

Name of the Programme	% of Students from the same university	% of Students from other Universities within the state	% of students from universities outside the state	% of students from other countries
M. Pharm	70 %	27.5 %	2.5%	-

**34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.**

12 : GPAT

01 : NIPER

03 : GUJARAT FORENSIC SCIENCE UNIVERSITY ENTRANCE EXAM

**35. Student progression**

Student Progression	In % of total enrolled
UG to PG	32.56 %
PG to M.Phil.	0.00 %
PG to Ph.D.	4.55 %
Ph.D. to Post-Doctoral	0.00 %
Employed	53.13 %
<input type="checkbox"/> Campus selection	8.00 %
<input type="checkbox"/> Other than campus recruitment	45.13 %
Entrepreneurs	1.50 %

### 36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	00
from other universities within the state	90%
from universities from other states from	10%
Universities outside the country	0

### 37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

2 ( Dr R. B. Maradia, Dr Tejas B. Patel )

### 38. Present details of departmental infrastructural facilities with regard to

a) Library	01
b) Internet facilities for staff and students	40
c) Total number of class rooms	04
g) Class rooms with ICT facility	04
h) Students' laboratories	10
i) Research laboratories	04

### 39. List of doctoral, post-doctoral students and Research Associates:

- a) Doctoral Students From the host institution/university :02
1. Mr. Tushar R Patel
  2. Mrs. Carol P Mackwan
- b) Doctoral from other institutions/universities :21
1. Chauhan KhushbuRajnikant
  2. ParamarkailashBhikhabhai
  3. ChudagarKiranjKishorbhai
  4. Patel SnehalDilipbhai
  5. MaradiyaJaydeepKantibhai
  6. MaulviFurqan Mohammad Akhtar
  7. Patel Asha Shankarbhai
  8. Mukesh Sharma
  9. Krutagn H Patel
  10. Atul R Baria
  11. Bhushan M Mahajan
  12. Trupti J Patel
  13. Palmi V Modi
  14. Rujuta K Trivedi
  15. Priyanka U Shukla
  16. Swagat K Soni
  17. BagadiaHemangi J
  18. Reshu Gupta
  19. SoyebChakawala
  20. Patel Kaushika M
  21. Patel Schin K

- c) Faculty as doctoral student at other university : 02  
 1. Mr. Jagat R Upadyay  
 2. Mrs. Mayuree A Patel

**40. Number of post graduate students getting financial assistance from the university:**

30

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology:**

None

**42. Does the department obtain feedback from:**

- Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback? Yes. Feedback is obtained from faculty by regular departmental meetings and implemented via BoS.
- Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback? Yes. Feedback is provided to individual teachers for their improvement in their teaching quality.
- Alumni and employers on the programmes offered and how does the department utilize the feedback? No

**43. List the distinguished alumni of the department (maximum 10):**

None

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts:**

**Guest/Special Lectures**

Sr. No	Name of Expert	Topic	Date	No. of Participants
01	Mr. Brijesh Desai	Intriciesies in Industrial Pharmacy	02 <sup>nd</sup> August 2011	60
02	Dr. Bhagirath K. Patel	Prospectus of Clinical Trials in India	25 <sup>th</sup> August 2011	60
03	Dr. Padmin Buch	IPR & Patents: Key to Success in Pharma	14 <sup>th</sup> October 2011	90
04	Mr. Ketan Naik	Concepts of Application of Designing Quality Management Systems	15 <sup>th</sup> October 2011	50
05	Dr. A. S. Reddy	Authentification of Herbal Drugs	10 <sup>th</sup> February 2012	90
06	Mr. Sanjay Patel	Student training on Patent filling, Claims & Patent Search	17 <sup>th</sup> March 2012	22

07	Dr. Satish Y. Ghabhe	Three days in-house workshop on “Carbonyl Chemistry”	17/01/2013 to 19/01/2013	50
08	Dr. Dharmendra Jani	Holistic Concept of Ayurveda	03 <sup>rd</sup> January 2013	80
09	Dr. Chaitanya Bhatt	Scientific Concept on Traditional Systems of Medicine	10 <sup>th</sup> January 2013	50
10	Dr. Y. T. Jasrai	Introduction & Significance of Plant Tissue Culture	31 <sup>st</sup> January 2013	90
11	Ms. Asha S. Patel	How to Write a Scientific Paper?	13 <sup>th</sup> February 2013	15
12	Dr. D. O. Shah	World of Surface Science	11 <sup>th</sup> January 2013	50
13	Dr. Ajay J. Khopade	Nanotecton: A Novel Platform Technology for The Delivery of Anticancer Drugs	2 <sup>nd</sup> March 2013	60
14	Mr. FurqanMaulvi	Referencing Software: Endnote	12 <sup>th</sup> March 2013	30
15	Dr. Ketan Ranch	GPAT Guidance: Guideline to Crack GPAT with Good Score	25 <sup>th</sup> March 2013	40
16	Dr. Hiren Contractor	Hepatitis: Causes, Prevention & Treatment	July 28 2013	60
17	Dr. Sishir Gang	Erythropoietin Stimulating Agents	30 <sup>th</sup> August 2013	80
18	Dr. Vishal Shah	Role of Analyst in Pharm Industries	15 <sup>th</sup> October 2013	50
19	Dr. SumantaRaha	Basis if Rheology and its Application in Polymeric Systems	31 <sup>st</sup> January 2013	40
20	Dr. Manu Multani	significance of Band gap in Nanostructured Photonic Materials	January 24, 2014	26
21	Dr. Manu Multani	Magnetic Nanomaterials Synthesis Characterization and Application	January 26, 2014	26
22	Dr. Manu Multani	Physical Characterization Techniques for Nanomaterials	January 28, 2014	26
23	Mr.Bharat B. Dhanani	Regulatory Documentation And Practice in Pharmaceutical Industry.	10 <sup>th</sup> October 2014	76
24	Dr. S P Adeshara Ex. Commissioner FDCA Gujarat	Medical Devices act	22 <sup>nd</sup> August, 2014	62

25	Dr. Ketan Ranch Assistant Professor, Maliba Pharmacy College	Key points for success in GPAT	7 <sup>th</sup> February, 2015	34
26	R Sankara Subramanian General Manager HR& Administration at AmantaBioSciences Ltd	How to face Interview?	14 <sup>th</sup> February, 2015	43
27	Dr. C J Shishoo Director B. V. Patel Pharmaceutical Education and Research Development (PERD) Centre, Ahmedabad	Recent Advances in Tuberculosis Treatment	25 <sup>th</sup> February, 2015	50
28	Dr. D. O. Shah Director, Shah Schulmann Centre for Surface Science and Nanotechnology, DDU, Nadiad	Motivation to the passing out students	24 <sup>th</sup> March, 2015	50

**45. List the teaching methods adopted by the faculty for different programmes:**

- a) Interactive teaching and learning using LCD projectors
- b) Usage of e-contents and multimedia materials
- c) Introduce Web based learning and experimentation
- d) Central assessment and evaluation of answer scripts

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

- a) Through departmental meetings and random checks by Dean, HOD and BoS
- b) By interacting with students, feedback and faculty frequently to check the progress

**47. Highlight the participation of students and faculty in extension activities.**

- Blood donation camp
- Industrial visits
- administrative duties during convocation and University foundation day
- sports and cultural events organized ( Annual University technical and cultural event)

**48. Give details of “beyond syllabus scholarly activities” of the department.**

Related content beyond syllabus in each course is pointed out to the students during regular lecture hours



- In the laboratory, one or few experiments beyond syllabus are conducted
- Industrial visits are arranged
- Encouraged to go for in-plant training during Sem. VI summer vacation. On their return, students will be asked to submit report about their training had in the industry. Few will be asked to present short seminar so that other students will get benefitted.
- Workshops and conferences are regularly arranged to update their technical skills

#### **Motivation and scope for self-learning/learning-beyond-syllabus**

- Guest lectures are also arranged regularly under ISA student section and inviting eminent experts from Industries and academic institutes
- Motivation for in-plant training in various industries, project internships
- To study beyond syllabus, the students are encouraged to visit some reputed industries to acquire knowledge.
- Video shows are arranged to the students to update their knowledge.
- Students were given placement training programs.
- Students are encouraged to do mini-projects after the regular working hours.
- College library and department library are utilized by the students for self learning.
- In the eighth semester, students have full semester project work.
- Mock Interviews are conducted to enlighten the students' to face the interviews and to increase their confident level.

#### **49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

- NAAC approval, B Grade, Institutional score 2.71, January 08, 2011 for 5 years
- ISO 9001:2008 QS Certification by ISOQAR, October 09, 2012 valid upto October 17, 2015 (Certificate No. 5673 ISO 9001:2008)
- Approved by Pharmacy council of India
- Approved by All India Council for Technical Education (AICTE)

#### **50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- a) Through research and development activities
- b) Introducing value addition courses.
- c) Conducting In-house and industrial training activities.

#### **51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

##### **Strengths**

- 1 Approval of PCI, AICTE, UGC, NAAC and ISO
- 2 Well planned academic calendar and exam schedule
- 3 E-governance
- 4 Strong research programme: interdisciplinary Research , industrial projects, Good infrastructure and sophisticated instruments etc
- 5 Research publications and research grants

### **Weakness**

- 1 Less no of patents
- 2 Separate research fund
- 3 Less full time Ph.D Students
- 4 Publication in high impact journals
- 5 Lack of incentives and rewards to back up excellence

### **Opportunities**

- 1 Food and drug testing laboratory
- 2 Conduct interdisciplinary research including dental, engineering ayurveda etc.
- 3 Research grants
- 4 Develop entrepreneurship development cell
- 5 Develop community science centre

### **Challenges**

- 1 Late admission process
- 2 Confidentiality in research
- 3 Entrepreneurship development
- 4 Input of research useful to local community
- 5 Malpractice of pharmacy education by pharmacy colleges in nearby areas.

## **52. Future plans of the department.**

- Establishing Centre of Excellence in Pharmaceutical Research
- Establishing nodal centre in the field of nanotechnology aided drug delivery
- Establishing nodal centre in the field of Pharmaceutical Drug and Food Analysis
- Establishing latest labs for Drug testing.

## FACULTY OF MANAGEMENT AND INFORMATION SCIENCE

### 1. Name of the Faculty

Faculty of Management and Information Science

### 2. Year of establishment

The Faculty of Management and Information Science offers different programmes  
The first programme offering M.C.A. degree is started in 1968.

### 3. Is the Department part of a School/Faculty of the university?

Yes

### 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.) :

UG, PG, Ph.D., M.B.A., M.C.A., B.B.A. (Hotel Management)

### 5. Interdisciplinary programmes and departments involved

The faculty members are taking interdisciplinary courses in other departments, like Communication, Personality Development, Project Management, Supply Chain Management, Marketing, Accounting, Finance, Organisational Behaviour, Human Resources Management, Management Information Systems, Economics, etc.

### 6. Courses in collaboration with other universities, industries, foreign institutions, etc.

The Faculty Members are offering their services as Guides for PhD, MPhil, External Examiners as well as Members of Statutory Bodies of other institutions.

### 7. Details of programmes discontinued, if any, with reasons

NA

### 8. Examination System: Annual/Semester/Trimester/Choice Based Credit System

Semester based system in practice  
Choice Based Credit System will be implemented from 2016-17.

### 9. Participation of the department in the courses offered by other departments

The faculty members are taking interdisciplinary courses in other departments, like Communication, Personality Development, Project Management, Supply Chain Management, Marketing, Accounting, Finance, Organisational Behaviour, Human Resources Management, Management Information Systems, Economics, etc.

**10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)**

	Sanctioned	Filled	Actual
<b>Professor</b>	<b>3</b>	<b>1</b>	<b>1</b>
<b>Associate Professor</b>	<b>4</b>	<b>3</b>	<b>3</b>
<b>Assistant Professor</b>	<b>18</b>	<b>15</b>	<b>15</b>
<b>Others</b>	<b>3</b>	<b>3</b>	<b>3</b>

**11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D./ M.Phil. students guided for the last 4 years
<b>MBA DEPARTMENT</b>					
Dr. Naresh K Patel	Ph.D., MBA, BE	Professor	Marketing	19	Ph.D. 6 Masters: 40
Prof. Naresh S Shah	CA, CAIIB, B.Com.	Associate Professor	Accounting and Taxation	42	Masters:28
Prof. Neeraj Yajnik	PGP(IIMA), B.Tech (IIT, Powai)	Associate Professor	Strategy	30	Masters:28
Prof. Pathik Variya	MBA, B.Com	Assistant Professor	OB and HRM	10	Masters:36
Prof. Frince Thomas	MBA, B.Com	Assistant Professor	Marketing	09	Masters36
Dr. Falguni Pandya	Ph.D., MBA, B.Sc.	Assistant Professor	Finance	11	Masters:36
Prof. Mansi Rathod	MBA, B.E.	Assistant Professor	Marketing, QT and Operations	08	Masters:34
Prof. Hardik Shah	MBA, M.Com	Assistant Professor	Finance and Accounting	05	Masters:34
<b>MCA DEPARTMENT</b>					
Minal V. Shah	MCA	Associate Professor	Computer Science	14	Masters: 39
Janak J. Shah	Post B.Sc. Diploma in Computer Science, M.Sc. (Statistics)	Assistant Professor	Computer Science	28	Masters: 38
Ajay N. Roy	MCA	Assistant Professor	Computer Science	14	Masters:38

Hetal M. Patel	MCA	Assistant Professor	Computer Science	08	Masters: 37
Hetal N. Shah	MCA	Assistant Professor	Computer Science	07	Masters: 37
Purvi N. Jardos	MCA	Assistant Professor	Computer Science	06	Masters: 35
Meghal A. Patel	MCA	Assistant Professor	Computer Science	06	Masters: 25
Nikhil P. Shah	MCA	Assistant Professor	Computer Science	06	Masters: 25
Milin J. Desai	MCA	Assistant Professor	Computer Science	13	
Utsav P. Patel	MCA	Assistant Professor	Computer Science	01	
Sagar P. Patel	MCA	Assistant Professor (Ad-hoc)	Computer Science	01	
<b>BBA (HOTEL MANAGEMENT)</b>					
Shailesh Kumar Thakur	M.Phil.	Asst. Professor	Hotel Management	15	
Ameya Arun Mandke	DHM	Asst. Lecturer	Hotel Management	12	
Prof. Nasir Rafiq	BHM	Adjunct Professor	Hotel Management	45	

## **12. List of senior Visiting Fellows, adjunct faculty, emeritus professors**

1. Dr.Sudhir Yadav
2. Prof. D.R.Patel
3. Prof. A.A.Shaikh
4. Dr. Hemant Trivedi
5. Dr. Vilas Kulkarni
6. Prof. Hitesh Bhatt
7. Prof. Nirlsh Kothari
8. Dr. Shailesh Gandhi
9. Dr. Prarthan Desai
10. Dr. C. Gopalkrishnan
11. Dr. Paresh Vohra
12. Prof. Amin
13. Dr. A.C.Brahmbhatt
14. Dr. Husain
15. Dr. Premal Shukla
16. Dr. Asha Kaul
17. Dr. Jinal Parikh
18. Dr. Paragi Shah
19. Prof. Jatin Christie
20. Prof. Pranav Desai
21. Dr. Avni Desai
22. Dr. Radha Ramchandran

- 23. Shree Ravish Shah
- 24. Dr. Sarla Achutan
- 25. Dr. J.C.Jani
- 26. Prof. Naveen Rai
- 27. Prof. Dhruvi Desai
- 28. Prof. Pooja Shah

**13. Percentage of classes taken by temporary faculty – programme-wise information**

MBA- 5%  
MCA-5 %  
BBA (HM) – 42 %

**14. Programme-wise Student Teacher Ratio**

MBA: 15:1  
MCA: 15:1  
BBA: 13.66 : 1

**15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual**

	Sanctioned	Filled
Support Staff	3	2

**16. Research thrust areas as recognized by major funding agencies**

Consumer Behaviour, Institutional Management, Entrepreneurship, Rural Development

**17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.**

Sr. No.	Year	Name of funding agency	Title of project	Grant received in INR Lakhs	Faculty
1	2013	UGC	Impact of Television Advertisements on Children and its impact on parent's decision making of brand: Special reference to Gujarat Region	1.31	Dr. Naresh K Patel
	2013	UGC	Study of Best Practices in Grant-in-Aid Business Schools of Gujarat	1.30	Prof. Neeraj Yajnik

3	2013	Government of Gujarat	District Human Development Report of Gandhinagar District	6.00	Dr. Naresh K Patel
4	2014	Government of Gujarat	District Human Development Report of Anand District	6.00	Dr. Naresh K Patel

### 18. Inter-institutional collaborative projects and associated grants received

a) National collaboration

- i) McDonalds
- ii) Vinayak Industries
- iii) Green Energy Pvt. Ltd.

b) International collaboration

NIL

### 19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

Sr. No	Title	Principle Investigator	Funding Agency	Year of Sanctioned	Duration in Years and status (Ongoing/Completed)	Amount in lakhs
1	Impact of Television Advertisements on Children and its impact on parent's decision making of brand: Special reference to Gujarat Region	Naresh K Patel	UGC	2013	Ongoing	1.31
2	Study of Best Practices in Grant-in-Aid Business Schools of Gujarat	Neeraj Yajnik	UGC	2013	Ongoing	1.30
3	District Human Development Report of Gandhinagar District	Naresh K Patel	Government of Gujarat	2013	Completed	6.00
4	District Human Development Report of Anand District	Naresh K Patel	Government of Gujarat	2014	Ongoing	6.00

## 20. Research facility / centre with

- State recognition : NIL
- National recognition: NIL
- International recognition: NIL

## 21. Special research laboratories sponsored by / created by industry or corporate bodies

Training Kitchen and Training Restaurant in collaboration with Boulevard 9, Nadiad, Gujarat.

## 22. Publications:

- Number of papers published in peer reviewed journals national/ international
  - National: 30
  - International: 29
- Monographs : 0
- Chapters in books : 10
- Edited Books : 02

Books with ISBN with details of publishers

No	Title	Name of Author/s	Publisher group	ISBN No.
1	Building Brand Without mass Media	Dr. Naresh K Patel	LAP Lambert Academic Publishing, Germany	ISBN 978-3-8433-8513-8. Dec 2010
2	Security Analysis and Portfolio Management	Falguni H Pandya	Jaico Publication	ISBN-13: 978-81-8495-410-4 2013

- Number listed in International Database (For e.g. Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- Citation Index – range / average
- SNIP
- SJR
  
- Impact Factor – range / average :0.6 to 3.5
- h-index: 0.235 to 5.871

## 23. Details of patents and income generated:

NA



**24. Areas of consultancy and income generated Strategy, start-ups and Entrepreneurship:**

Registered consultant for

- MSME dept of India
- AQUAGREEN Hydroponics Pvt. Ltd., Ahmedabad
- Vinayak Innovative, Junagadh

Income generated: Rs.10,000/-

**25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad**

Dr. Naresh K Patel received Fulbright Scholarship for year the 2014-15 and visited USA

**26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)**

- Doctoral committee: 01
- Journal/ conference review committee: 01
- Advisor committee: 02

**27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).**

Programs attended by faculties

- UGC Sponsored: 17
- Workshop/Training Programmes: 60

**28. Student projects**

- Percentage of students who have done in-house projects including inter-departmental projects 100%
- Percentage of students doing projects in collaboration with other universities/ industry / institute 100%

**29. Awards / recognitions received at the national and international level by Faculty/Students**

**Faculty**

- Dr. Naresh K Patel received Fulbright Scholarship for year 2014-15; visited US between 25.10.14 to 8.11.2014
- Dr. Naresh K Patel Best faculty award from DDU for the year 2013-14.
- Dr. Naresh Patel and Prof. Frince Thomas got best research paper award at GNU-FMS Conference on Emerging Management Practices, 2014, Ganpat University

## Students

- MBA Students have received best presentation award for their summer internship project at national level competition.
- Two MCA students Suresh Mani and Hiren Sankdasaria have passed NCAT examination and consequently attended one week training at IIT Delhi

### 30. Seminars/Conferences/Workshops organized and the source of funding (national/international) with details of outstanding participants, if any.

- GUJCOST sponsored workshop has been organized in CMS DDU for Faculty members and Researchers on 17th April, 2015. Total 60 faculty and researchers attended the workshop.
- GUJCOST sponsored workshop has been organized in MCA Department on “Applications of Artificial Intelligence” in which 60 students participated from DDU and other universities

### 31. Code of ethics for research followed by the departments

The faculty ensures the ethics and etiquettes by motivating students as well as faculty to holistically follow the code of ethics for any research work carried out within the faculty and outside the faculty. Plagiarism check and citation referencing have been taken care well.

### 32. Student profile programme-wise:

Name of the Programme	Applications received	Selected		Pass Percentage	
		Male	Female	Male	Female
MBA (2014-15)	Admission given Centrally by Government of Gujarat through Common entrance exam	32	16	90.62	81.25
MCA (2014-15) Sem-I		23	10	100.00	100.00
MCA (2014-15) Sem-III		21	14	100.00	100.00
BBA (HM) (2014-15)	25	09	02	100.00	100.00

### 33. Diversity of students

Name of the Programme	% of students from universities within the State	% of students from universities outside the State	% of students from other countries
MBA	97	03	00
MCA	99.46	0.54	00
BBA (HM)	100	00	00

34. How many students have cleared Civil Services and Defence Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

Sr. No.	Category	No. of Students
1	Civil Services	0
2	Defence Services	0
3	NET	5
4	SET	0
5	GATE	N.A.
6	Other [Bank P.O.]	1
7	PhD Entrance	2

35. Student progression

	Percentage against enrolled				
	2014-15	2013-14	2012-13	2011-12	2010-11
PG to M.Phil.	0	0	0	0	0
PG to Ph.D.	0.83	0	0	0	0
Employed					
Campus selection	57.2	49.4	50.6	40.8	39.10
Other than campus recruitment	38.8	40.6	42.6	53.2	53.44
Entrepreneurs	2	3	5	2	5

36. Diversity of staff

Percentage of faculty who are graduates	
of the same university	17
from other universities within the State	75
from universities from other States from	08
universities outside the country	00

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period:

03

38. Present details of departmental infrastructural facilities with regard to

Library: 500 books  
 Internet facilities for staff and students:34  
 Total number of class rooms: 08  
 Class rooms with ICT facility:05  
 Students' laboratories: 05  
 Research laboratories: 03

**39. List of doctoral, post-doctoral students and Research Associates**

- a. From the host institution/university  
02 faculty members are doing Ph.D. from D.D. University
- b. From other institutions/universities  
02 faculty members from S.P. University are registered as a Ph.D. student

**40. Number of post graduate students getting financial assistance from the university.**

71 students have received assistance from this university.

**41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.**

NA

**42. Does the department obtain feedback from**

- i. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, Department obtains feedback from students regarding teaching, course curriculum, pedagogy, evaluation etc from time to time.

- ii. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

Department utilizes it to further strengthen their course, evaluation, teaching pedagogy etc

- iii. Alumni and employers on the programmes offered and how does the department utilize the feedback?

By getting feedback from Alumni and employers department tries to make course industry required so employability of the students can be increased.

**43. List the distinguished alumni of the department (maximum 10)**

<b>Name</b>	<b>Designation</b>	<b>Organization</b>
Pranav Brahmhatt	Analyst	McKinsey
Varsha Patel	Finance Manager	Ford India
Rohan Mistry	Export Manager	Vila-Mode International
Hiren Pandya	Branch Manager	IDBI Bank
Prarthan Desai	Assistant Professor	IIM Kolkata
Kapil Bansal	Senior Project Leader	TCS, Gandhinagar
Shri Meet Kulkarni	Manager	NDDDB, Anand
Jonita Meckey	Head of the Dept	SVIT, Vasad
Vihar Desai	Software Developer	iGate Patni
Nishit J. Desai	Senior Developer	Dovetail Systems, USA

**44. Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.**

- Communication workshop was organized by MCA department to increase students' proficiency in speaking as well as formal writing
- Workshop on "Applications of Artificial Intelligence" (sponsored by GUJCOST) was organized by MCA Department
- A seminar was arranged on Intrusion Detection Techniques and an expert lecture on "Data Warehousing" was organized by MCA department
- An expert seminar on "How to Do Projects Effectively" was organized by MCA department

**45. List the teaching methods adopted by the faculty for different programmes.**

Faculty adopts a mix of lectures, presentations, individual and group projects and assignments, live projects, classroom problem solving and report writing. The actual mix depends on the subject and is decided by faculty, and the process is often discussed in the meetings.

**46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?**

Learning outcomes are monitored by a scheme of continuing evaluation along with questioning and class presentations by students. From these activities, it becomes very obvious whether learning has taken place, and whether programme objectives are met.

**47. Highlight the participation of students and faculty in extension activities.**

- Students routinely take part in extension activities like:
  - a. Community service by the University
  - b. Participation in competitions in other institutions
  - c. Participation in appropriate live projects assigned by outside agencies and undertaken by the department
- Faculties participate in extension activities through delivery of expert lectures to other institutions/ organizations

**48. Give details of "beyond syllabus scholarly activities" of the department.**

Students are encouraged and mentored to undertake the following activities:

- Once a week, by rotation, students make a presentation on a topic of contemporary interest called the Weekly Lecture Series
- Participation in appropriate live projects assigned by outside agencies and undertaken by the department

**49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.**

Yes, in addition to NAAC, ISO 9001:2008 Certified.

**50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.**

- By publishing papers in international and national journals, the faculty has generated a lot of new insights in the marketing and financial scenario of the business sector in India.
- Faculty members are giving presentations on the latest trends on applications of computer science on a weekly basis.

**51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.**

**Strengths**

1. In-depth teaching by all qualified faculty in all subjects using a mix of teaching methodologies
2. Continuous evaluation as per a rigorous and transparent system
3. Live cases and projects
4. Industry-academy interaction, including Summer Internship Project and Major Research Project
5. Systematic administration and governance of the department, making it effective and efficient.

**Weaknesses**

1. No control over the quality of incoming students, as admissions are centralised at the state level
2. Sometimes, the location [not being in Ahmedabad or Vadodara] proves a detriment to providing live projects to students
3. As the Programmes are not residential programmes, there is less time for students to do homework or outside-class projects and other work
4. Still room for more ICT equipment in the classroom
5. Lack of dedicated infrastructure suited to the MBA programme like classroom, workspace and faculty space

**Opportunities**

1. Opportunity to introduce additional industry-relevant programmes like Executive MBA
2. Opportunity to introduce Management Development Programmes in focussed areas
3. Opportunity to expand the industry-academy collaboration
4. Opportunity to provide on-line education
5. Opportunity to network with existing alumni to enrich the teaching/ learning experience and expand the placement process by leveraging ICT technology

**Challenges**

1. Expansion in the number of universities in the state, as each one wants to come up with MBA/MCA Programme since they think it is very easy

2. To come up with programmes or methodology to help weak students cope with the regular study rigour. This will make the University unique in the field as no institution focuses on the weak student.
3. Increasing extra-curricular and extra-mural activities without diluting academic rigour and in the existing limitations of a non-residential programme
4. To carve out space for better research within the existing resources of money, network, procedures, materials and time
5. To improve the public image and comparative status of the departments light of inadequate resources to take it to the next level

**52. Future plans of the department.**

- To significantly improve the status of the faculty in research, alumni and teaching/learning aspects
- To offer more industry-relevant programmes, i.e. other than the regular programs

## Student Charter

Quality is a joint responsibility of all the stakeholders of Dharmsinh Desai University (DDU) and each plays an important role in its enhancement and sustenance. DDU strives to play a catalytic role in synergizing the stakeholders' efforts in this direction. The students have a unique role in ensuring quality in education and they can rightfully demand it from DDU. In turn, they have to accept their responsibilities also, which will help DDU in providing quality education.

### A) DDU's Responsibilities towards Students :

DDU Shall :

- ▶ Convey its Vision and Goals to all the students.
- ▶ Provide a platform to students that develop their personality through Academic and Non-Academic initiatives.
- ▶ Offer a wide range of programs with adequate academic flexibility that is consistent with its goals and objectives.
- ▶ Obtain feedback from students on the initiation, review and redesign of programs." Facilitate effective running of the teaching-learning processes.
- ▶ Implement a well-conceived plan for monitoring student evaluation continuously and ensure that the assessment mechanism is reliable and valid.
- ▶ Provide clear information to students about admission and completion requirements for all the programs, the fee structure and refund policies, financial aid and student support services.
- ▶ Take initiatives for enhancing the quality of education of the University.

### B) Student's Responsibilities for Learning:

The student shall:

- ▶ Contribute to the realization of the goals of the DDU by participating in relevant institutional activities.
- ▶ Have a clear knowledge of the programs, admission policies, rules and regulations of the DDU.
- ▶ Follow the time schedules, rules and regulations of the DDU.
- ▶ Undertake regular and intense study of learning materials.
- ▶ Make optimum use of the learning resources and other support services available at DDU.
- ▶ Prepare for continuous internal assessment, end-term examinations and surprise tests.
- ▶ Give an honest feedback for improvement of the system.
- ▶ Have faith and ability to pursue life long learning.
- ▶ Live as worthy Alumni of the DDU.
- ▶ Become a Nobel Citizen of the Nation.



# A Journey Towards Golden Jubilee



**1991**

Achieved Autonomous Status



**2005**

Achieved Full University Status



**2013**

Awarded Best Regional University Award by 'Oxford Summit of Leaders'

**1968**  
Dharmsinh Desai Institute of Technology Established



**2000**  
Achieved Deemed University Status



**2013**  
Set the Guinness World Record for Maximum Number of Eye Pledges in 8 hours



**2015**  
Awarded Asia's 100 Best and Fastest Way Educational Institute by WCRC Leaders Asian Education Excellence Summit & Awards



## DHARMSINH DESAI UNIVERSITY

College Road, Nadiad - 387 001.

Ph. : 0268-2520502 ■ Fax : 0268-2520501

Website : [www.ddu.ac.in](http://www.ddu.ac.in)