

**Thursday**

**January 19<sup>th</sup>, 2012**

**3-00 p.m to 5-47 p.m.**

**University Report**



ESTD - 2007

## **GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD**

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**: Venue :  
Cricket Ground  
L. D. College of Engg.,  
Navrangpura,  
Ahmedabad**

# **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **FIRST CONVOCATION**

**Thursday, 19th January 2012**

**Report by the Vice-Chancellor**



**Gujarat Technological University**

(<http://www.gtu.ac.in/>)

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## THE REPORT

Her Excellency, Dr. Kamlaji, the Governor of Gujarat and Chancellor, Gujarat Technological University, Lt. General N.B.Singh, VSM, Director General of the Corps of Electronic and Mechanical Engineers of the Indian Army and today's Chief Guest, Members of the Board of Governors and Academic Council, Director, Deans, Honorary Directors, 'Principals, Directors and Managing Trustees of Colleges/ Institutions', faculty members, distinguished guests, members of media, staff of the University, Awardees and their Parents, my dear students, ladies and gentlemen,

I feel privileged to welcome you all to the First Convocation of the University.

Any University is a public organization and it must hold itself accountable to the whole of the Society. Hence at every Convocation, a VC is required to present a Report about how well it has discharged its academic and institutional obligations.

In September 2010, at the inauguration of the Conference of the Vice-Chancellors of the west zone at Vadodara, the Chief Guest of that day said that India did not have institutions of Higher Learning and that we only had Institutions of Further Learning, for which the word 'University' should not be used. This Report brings out the fact that GTU is working hard for - and beginning to succeed in- truly becoming a 'University', in the sense the word is understood in the rest of the world, outside South Asia.

## ACADEMIC PROGRAMS:

For GTU, the first and foremost priority is our students. The second priority is the faculty and there is no third priority, whatsoever.

I am happy to report that the University has been continuously developing, revising and up-grading the syllabi of its Doctoral program, 48 Master of Engineering programs in ten different branches of engineering, 14 Master of Pharmacy programs, 9 Master of Business Administration programs, Master of Computer Applications program, 34 Bachelor of Engineering programs, Bachelor of Pharmacy program, 30 Diploma Engineering programs and Diploma Pharmacy program. It has started three Master's programs in the areas of VLSI Design and Embedded Systems, Mobile Computing and Wireless Technologies and Cyber Security. These are highly **practice-oriented and world-class programs**.

When I took charge as the Vice-Chancellor in June 2010, I found the syllabus of our MBA program had more courses than the syllabi of any of the ivy league Universities, it did not deal with global studies effectively and it had no component of immersion studies. During July 2010 to June 2011, the University has developed **a new global MBA program**, through our Committee of Experts. GTU takes valuable inputs from many professionals from industries and businesses. But we are able to prepare and revise the syllabi through hard work of hundreds of hours by hundreds of our distinguished faculty members. **Dr Rajesh Khajuria** led the Committee of Experts for the MBA program.

When I mention Dr Rajesh Khajuria's name, I want to thank all the hundreds of our faculty members, who selflessly serve the cause of education at GTU in various Committees of Experts.

**Prof Indrajit Patel** is coordinating a large state-wide effort for conducting **a survey of the needs of the engineering industries** so that the DE programs may reflect the needs of our industries. Our Deans have taken up the responsibility of revising the BE and B Pharm programs before the beginning of the next academic year.

*(Appendices 1, 2 and 3 describe the work of the Syllabus Development Groups.)*

The University is determined to ensure that its Master's and Doctoral students' theses are of very high quality. In 2011, it started the practice of an intensive pre-defence review of Master's theses in Engineering and Pharmacy so that expert advice may be provided to the students for improvement in the quality of their work. On September 30, 2011 the University started its doctoral program with 173 students in the fields of Engineering & Computer Applications, Pharmacy and Business Studies. Before starting the program, the University conducted a two-day workshop on Research Methodology for the doctoral supervisors by using experts from all over the country and Canada. About 21 Professors from abroad are working as co-supervisors for the doctoral theses. GTU is setting up a specialized Doctoral Research Committee (DRC) for every doctoral student. A DRC consists of experienced researchers from both the industries and academia from the area of research of the candidate, to help him develop a world-class thesis. The small post-graduate program team at GTU has continued to work long hours for many months to create and sustain the required framework for ensuring the high quality of Master's and Doctoral work. The team is led by **Dr. Rajul K. Gajjar**, Dean for the Post-graduate and Doctoral programs and it includes **Professor Nirbhay Chaubey**, who has provided invaluable contribution to this important job.

#### **DEVELOPMENT OF COMMON COURSEWARE**

The strength of GTU, with which it wants to serve the cause of education, is the large number of Colleges and about 12,500 faculty members. At 10 months of learning process per year, they devote 1.25 lac man-months, which is much more than what the entire ivy-league Universities do. We have a hidden capacity, which is required to be nurtured and used in the service of the country and the world.

By getting the courseware for one course prepared from a Department of one College and by distributing the job of preparing the courseware to a large number of Colleges, GTU is able to have the courseware of all the programs, prepared and shared among all the faculty members. This provides a common material, which is the minimum that must be covered in every class, where the course is offered. Secondly by using the feedback from students and the faculty members, the system is designed to improve and update the courseware from year to year. A large number of faculty members are working as resource persons. I salute them for using hours of their own time for common good, without expecting any rewards.

#### **FACULTY DEVELOPMENT PROGRAMS (FDPs) & ACADEMIC CONFERENCES**

GTU organizes continuously over the year Faculty Development Programs so that the quality of learning systems can be improved. In addition a series of Conferences, Workshops and Seminars are organized, in whichever area, a need is felt.

Appendix 4 will show that GTU has built, during the last 18 months, today has **the largest faculty development program in the country to its credit.**

Every single conference requires sincere and continuous work of many months by many faculty members. I thank **Dr. P.G.K.Murthy**, who recently organized an International Conference for GTU. We are thankful to the GTU Director, Principals/Directors and all the other faculty members, who have worked selflessly to make these academic activities a success. The faculty members are different for different FDPs/conferences. But the team of officers at GTU, led by **Ms Almas Juneja**, remains the same. This team helps **organize FDPs and conferences at different places all over the state, on both days of nearly every week-end.** Thanks to the team's dedication and readiness to work beyond their duty hours, the University has been able to put new and useful ideas before a large number of faculty members and some students.

## DEVELOPING SOFT SKILLS

GTU has signed a Memorandum of Understanding with the Society for Creation of Opportunity through Proficiency in English (SCOPE) so that the students can use SCOPE programs for enhancing their communication skills.

Starting from this semester, GTU has started offering a **unique course for inculcating values**, which would make our graduates, better citizens and better team-players. The course also includes three soft skill components of resume-writing, appearing in interviews and participating in group discussions. The course has been titled as the Contributor Personality Development course. Since such a course was to be offered for the first time in the country, a pilot project was conducted at Rajkot during March-April 2011, under the leadership of **Swami Sarvasthanandji** of Ramakrishna Mission, Rajkot, **Professor P.C. Vasani**, Principal, L.E. College of Engineering and **Prof D.H. Ahir**, Associate Dean for GTU's Diploma Engineering programs. The videos of the pilot project were put up on the GTU web-site for the whole of the GTU community. At present, this course is being offered to more than 50,000 students. Over two semesters, more than 100,000 students will benefit from this course. The University is training more than 1,000 faculty members through a large FDP, titled - the Swami Vivekanand Contributor Personality Program. This FDP is fully supported by **Adani Foundation**.

## INTERNATIONALIZATION

The Center for World-Class Universities at Shanghai Jiao Tong University has postulated that international experience is required for both the students and the faculty of any world-class University.

GTU has signed MoUs with foreign Universities, industry associations and large industries. It has used each one of these MoUs intensively so that GTU may be able to become the Leader in Learning Outcomes.

*(Appendix 5 gives the list of 19 MoUs, signed by GTU.)*

In the summer of 2011, **GTU became the first State University, which sent a group of students for a Study Camp to a foreign University**. Led by Professor Bhavin Pandya, 34 MBA students had an exciting experience at the reputed **University of Alberta, Canada**. Appendix 6 shows that after our students returned, three faculty members from Alberta have visited GTU for discussions about taking our collaboration to higher levels. Mr. Paul Miller, CEO of GeoGlobal Resources, Calgary, Canada supported the Study Camp by reimbursing the costs of the learning process of our students at Alberta. I must thank Shakun, my wife, for helping get this donation by making a request to Mr. Paul Miller on my behalf and I must thank him for readily accepting her request.

During this semester, the **Global Immersion Study program**, as a part of the new Global MBA syllabus, is being implemented at all the MBA Colleges. 47 students are planning to visit three of the neighbouring countries for immersion studies.

*(Appendix 7)*

## GTU INNOVATION COUNCIL (GIC)

GIC has been designed to use all the resources of GTU and the society to graduate young technologists, who can hold their own in the 'flat world' of today. It has started creating a mind-set of innovation in the whole of the SME world of Gujarat. **At GTU Innovation Sankuls** meet 500 leaders of academia with 500 leaders of industries. Naroda Sankul was the first of 25 Sankuls, which have been set up across the State. **Shri Shaileshbhai Patwari** is well-known as an outstanding leader, who has contributed a great

deal to keeping the environment healthy even as industrial development takes place at a fast rate in Naroda. Today he is known as a leader in the academic world, a leader, to whom our students go when they want to select a Final Year project anchored in the issues on the floors of the factories in Gujarat. Final Year students in engineering colleges and polytechnics are working on 16,000 such projects, obtained through the 25 Sankul Committees.

We set up the GTU Innovation Council on 2nd August 2010 and worked on bringing all the Chambers of Commerce and Industry, all the GIDC Associations and professional associations into the fold of the Council. This helped our students in finding mentors for their Final Year projects. Thus **Bharatbhai Modi**, President of Gujarat Institute of Civil Engineers and Architects worked with **Dr Rupesh Vasani**, Dean, Engineering and Principal, Sal Institute of Technology and Engineering Research to help 1,200 of our students.

About 10,000 students and teachers work together in more than 400 **Udisha Innovation Clubs**, set up in every College/ Institution affiliated with GTU, to have a continuous inter-action with industries.

GTU Innovation Council is already being recognized as, by far, the largest and the most successful innovation project, taken up by any University in the world. For the first time in the world, 50,000 students of a University went into industries on a mission of innovation. Every student had the objective of selecting a problem for improving a product or a process. The problem was to be the Final Year project for the student. **GTU won the best jury Award in the category of Best Interface between Academia - Industry at the World Education Summit 2011, New Delhi for its project GTU Innovation Council.** Asking our Final Year students to locate a problem from the SMEs and to solve it during the two semester of their Final Year challenges them to identify a problem, anchored in a real-life scenario, to design a solution and to implement it. This methodology attempts to provide a solution to the problems, identified by Dr. Narayana Murthy, when he said, "The primary difference that I have found between the system of education in India and other countries, particularly the US, is that they focus on problem solving and relating theories to reality around them."

*(Reference: Dr. Narayana Murthy's speech at IIT-Gandhinagar on July 20, 2011)*

Three **Skills Councils in Financing, Human Resources & Organizational Structures and Marketing** have been set up for facilitating immersion studies of MBA students and for helping businesses and industries become more professional through study and research in the 27 sectors of the three Councils. Each of the 27 Sectoral Panels is co-Chaired by a Director of an MBA College and one leading professional.

GTU has set up an **Integrated Training and Placement (I-TAP)** cell for coordinating and strengthening the work of the Training and Placement officers in Colleges. I-TAP is engaged in setting up seven Regional Committees so that Final Year students in every College may be able to get excellent placement service. As in other fields, GTU is engaged in capacity building of individual students, of students groups like Udisha Clubs and of faculty members - in all the roles they play at the University.

As Dr ManMohan Singh rightly said, "We need to give practical meaning to innovation so that it does not end up being just a buzz word." GTU Innovation Council is one example, which is giving a practical meaning to innovation.

*(Appendix 8 describes GTU Innovation Council, Sankuls, Udisha Clubs, I-TAP and Skills Councils.)*



Many of the SMEs in the developed world use and develop innovative technologies. When these technologies are found to be useful in the world's market-place, bigger companies acquire the patents at a value, which may be of the order of hundred times the annual profit of the SME. Hence SMEs guard their innovations through patents. When our young students are working on innovative solutions to real-life problems with the guidance of the faculty members and mentors from the industry, some of these innovations may be valuable. We are organizing 2-day Workshops on Patenting for our faculty members so that they can spot a patentable idea and help the students and the SMEs to file a patent. **Professor Manish Rachchh** is spearheading the movement of training 1,000 faculty members before the end of this semester. I am pleased to inform that **GTU community has already filed 23 patents**, including one International patent, even before the completion of the projects in April 2012. GTU is the first technological University in India to develop **a complete path for journey from mind to market**. The target is to file during this year as many patents **as are filed by the rest of Gujarat in two years**.

GTU Innovation Council is a monument created through the contribution and the passion of Dr. Anil Gupta, Mr. Hiranmay Mahanta and many young students, who worked for me even beyond midnight for weeks. The success of GTU Innovation Council is not only mine, it is the success of a joint endeavour.

## RESEARCH BOARDS

The Research Board on Environmental and Green Technologies and on Mobile Computing and Wireless Technologies have been set up to support the research work of the faculty members, Doctoral students and Master's students and to create an interest among under-graduate students in the field. The two Boards are continuously organizing seminars, workshops and lectures in their respective areas of interest. The University has issued a Request for Collaborative Research Proposals in the area of Mobile Computing, Networking and Applications for encouraging research in these areas.

Thanks to the help of many citizens and organizations at different times, the University has been able to make a progress in many directions, even when it has not yet been able to have full-time faculty members in Schools of the University. **Wing Commander (Retd) C.G. Pandya** has worked as the Honorary Director of the Board on Environmental and Green Technologies since 22nd December 2010. He has provided invaluable service to GTU.

*(Appendix 9 presents a Report on the work of the two Boards.)*

## STUDENT FOCUS at GTU: Helping the Detained Students:

At GTU, the number of students, who are able to go to higher classes after appearing at the University examinations is of the order of 90% to 98%. The percentage of detained students is much smaller than that before GTU was established. However after the establishment of a common Technological University, it has become possible to take steps to help the small percentage of students also, since the small percentage can now translate into reasonable numbers for having such programs.

During this semester GTU is taking the first **innovative** step to extend its support to the students who have been "detained". With the help of Gujarat Knowledge Society, GTU will offer Personality Development programs, including programs for learning Computer Programming & Utilization skills and Communication Skills. It may also include classes in courses of Mathematics, Mechanics of Solids,



Engineering Graphics etc, wherever after the counseling session, it is found that there is a need. The program is designed to get back these students' enthusiasm in studies so that when the student gets back in the chain of regular studies, his/ her morale is high.

### **THE BEST OF SUPPORT SERVICES through a CREATIVE USE of IT**

GTU has won **Information Communication Technology(ICT) Enabled University of the year award by the Jury at the E - India 2009 conference**, when its examination processes were found to have used technology creatively. The integrity of its examination process has been maintained even as the number of students became seven times in four years, while the number of officers at the Examination Department continued to decrease.

Our Website has been expanded to provide information about all its faculty-centric or student-centric activities. Useful information related to admission and examination to the students and material like syllabi of various academic programmes, results, transcripts and question papers of the preceding academic sessions are all available on our Website, to better facilitate the vital flow of information to the GTU community.

GTU has been conducting **online entrance tests** all over the state for MBA/MCA admissions. The test has been run without any glitch and has **won for GTU the Manthan South Asia Award-2009**.

**In 2010, GTU became the first affiliating University in Gujarat to offer e-mail of xxx@gtu.edu.in to about 400,000 students and faculty members.**

The list of 29 initiatives given in Appendix 10 will show that GTU **continues to lead the entire University system in India in using IT creatively** to make the learning process, the process of dissemination of information and administration of the University effective. **Professor Ashesh Desai**, by his work, has made himself indispensable for the technology education system in Gujarat.

### **ENROLMENT and AFFILIATION:**

Gujarat Technological University started working with affiliated Colleges when on 8th July 2008, Government of Gujarat (GoG) transferred Degree and Diploma programs in Engineering and Pharmacy to GTU. The number of students was about 52,000. On 26th May 2009, by another notification, GoG transferred post-graduate programs in Engineering, Pharmacy, Management and Computer Applications to GTU. Today 559 different programs with about 3,50,000 students are affiliated with it. Besides GTU is having a Doctoral and three Master of Engineering programs in the areas of VLSI Design and Embedded Systems, Mobile Computing and Wireless Technologies and Cyber Security. **These three are world-class programs.** **Prof Ujjaval Y. Nanavati** has been working to keep track of the expansion of technical education from 2008-2010 and has more information about all the Colleges at his fingertips than any one else at the University.

*(Appendix 11 provides the data on Affiliation of Programs.*

*Appendix 12 describes the work of endorsement of faculty members at Colleges.)*

### **EVALUATION SYSTEMS**

On April 14, Dr CNR Rao, Advisor to the Prime-minister for Higher Education said that India has an Examination System and not an Educational system. I hope you will agree with me, after listening to the Report, that during the last eighteen months, GTU has been striving hard and has started succeeding

in creating a University, which may be recognized as an Institution of Higher Learning. But a University must have a fair, credible and transparent system of evaluation of its students. The world expects that the transcripts, which accompany University's graduates for their entire working life, represent an evaluation, which the world can rely upon. Appendix 13 on the evaluation system, prepared by Dr. G.P.Vadodaria, the Controller of Examinations, will show that the GTU's examination system is robust and fair.

## **SPORTS and YOUTH FESTIVAL**

Honourable Chief Minister Shri Narendrabhai Modi wants Universities to work for holistic development of their students. Every one agrees that a University must have libraries, laboratories, Workshops and faculty members, GTU feels that gymnasias and sports coaches, open-air theatres and cultural officers, art studios and artists-and-authors-in-residence are also an essential part of a University. To develop the complete personality of its students, since 2010-11 GTU has started organizing extra-curricular activities, even though the University does not have any Officers or any facilities. It organized Sports Competitions during 2010 and 2011. In 2011, it also organized a Youth festival.

The Sports Programs, in which teams from different Colleges and Institutions participated, were named Spirit-2010 and Spirit-2011. These drew about 7,500 students each. GTU sent its teams to participate in AIU West Zone Sports Meet at various universities. Performance of the football team was good and it was able to enter into quarter finals. GTU requires Coaches for different sports if the performance is to improve further.

In 2011, GTU organized its first Youth Festival XITIJ - 2011, in which 180 colleges & approximately 6000 students participated. The University participated in AIU West Zone Youth Festival at M L Sukhadia University, Udaipur. GTU participated in the maximum number of events in the first year of its participation. GTU stood third in the Debate & Quiz competition.

Since its Blood Donation program has become the biggest in the State, it was given the Sherdil Award at the hands of **Her Excellency Dr. Kamalaji, Governor of Gujarat, Honourable Chief Minister Shri Narendra Modi and Honourable Health Minister Shri Jay Narayan Vyas.**

Indian Red Cross Society, Gujarat State appreciated the effort of Gujarat Technological University in the area of Thalassaemia Awareness & Testing Program. GTU received two Awards from **Her Excellency Dr. Kamalaji, Governor of Gujarat and Smt. Maduben Nayak, President, IRCS, Gujarat state** in the year 2011 & 2010 respectively.

Three technical units of NCC are working with GTU, with a total intake of 600 cadets. A request has been made to convert these units into a Battalion to increase the intake by 3000. 2000 seats of NSS have been allotted to GTU in the month of December 2011 and the process of distribution of seats to various institutes is in progress.

I thank **Captain Dr. Chaitanya S Sanghvi** for his excellent work as the Honorary Secretary of GTU Sports Board.

*(The Report on Sports and Youth Festival is given in Appendix 14.)*

We all at GTU feel honoured by the gracious presence of the distinguished dignitaries on and off the dais at this first Convocation of GTU. I congratulate the students, who have received the gold medals for their meritorious work. I wish all the graduating students all the best in their career. I regularly

visit Colleges, particularly those, which are located in smaller towns. I inter-act separately with students and faculty members before I meet the Managing Trustees. The feedback, obtained at these visits has helped me modulate our policies in the interest of better learning systems. The graduating students of today will be our first Alumni. After you move out from the University into the open competitive world, please continue to give your feedback about the programs. This will help us update our existing programs. We may also be able to help you through developing Continuing Education Programs (CEPs), if you go on informing us of your needs. Like University of California, Berkeley, we want to develop a diverse and robust portfolio of CEPs to help our Alumni move ahead in their work-places.

I thank Her Excellency, Dr. Kamlaji, the Governor of Gujarat and Chancellor, Gujarat Technological University and Lt. General N.B.Singh, VSM, Director General of the Corps of Electronic and Mechanical Engineers of the Indian Army for taking time out of their busy schedule for joining us on this occasion, which represents an important milestone for GTU as well as in the lives of the graduating students, their parents and their teachers.

At the end I want to thank the entire GTU staff, led by Dr G.P. Vadodaria for the hard work, that they are putting in day after day and month after month. I want to put on record that I value the work of each one of them, starting from the daily wage earners at GTU to the highest of our officers. When GTU is recognized by the world as one of the best Universities of the world, I shall know that it could not have been done without the tremendous personal sacrifices, each one of them is making, much beyond the usual call of duty. I thank them all and apologize for driving them hard in the pursuit of my passion for making GTU a great University.

I thank all those, who are associated with GTU today as well as all those, who worked for it during its formative years.

Let me not forget to thank Shakun, who takes a keen interest in GTU's progress and celebrates every success of GTU's students and faculty members. Without her support and advice, I could not have obtained the unbelievable successes, we have been able to notch up in a short period. Thanks, Shakun, for always adopting every cause of mine, as your very own.

**Jai Hind.**

**Akshai Aggarwal**

**APPENDIX 1****Report on Syllabi of PG Programs (MBA, MCA, ME, and MPh):**

Gujarat Technological University is established in the year 2008. PG Programs are affiliated with university from academic year 2009. University had affiliated all government, grant in aid and SFI institutes form all over Gujarat. As per the policy of University syllabus of the Programs are reviewed by the expert and experienced faculty members from different institutes. Syllabus committee is formed for each of the PG programs. Deans are appointed for each PG programs. Deans are helpful to identify expert faculty and help in the coordination for the syllabus.

**MBA**

In MBA colleges only four basic programs (functional area) were offered in the year 2009. The programs offered were Marketing management, Finance management, Human resource management and information system management. Syllabus for all courses is reviewed by expert faculty of syllabus committee appointed by the university and implemented. MBA Program was designed for two year in four semesters. Teaching scheme is finalized in three components like theory, mid, and internal. Marks allotted for each component are 70, 30, and 50 respectively. Theory component is evaluated by the university through the end semester examination while other two components are evaluated by institute during semester.

As per the suggestions received from industry and expert senior faculty member and directives of the Hon. Vice chancellor, the university decided to revise the existing syllabus of the MBA from academic year 2011 and made it more compatible with national and international level university. Series of meetings were conducted with various syllabus committee members and it was decided to increase basic programs (functional area) offered in MBA from four to nine. New basic programs (functional area) included are International Business Management, Banking & Insurance, Rural & Agro-Based Management, Asian Business, Sustainable Global Businesses. New subject like Global / Country Study Report and Comprehensive Project - Industry Defined Problem which improve practical approach of the students are introduced in the semester III and IV. This will improve student's quality of this university and fulfil the demand of industry.

**MCA**

In MCA, the syllabus for all the courses is reviewed by expert faculty of syllabus committee appointed by the university and implemented. MCA Program was designed for three year i.e. six semesters. Teaching scheme is finalized in three components like theory, mid, and internal. Marks allotted for each component are 70, 30, and 50 respectively. Theory component is evaluated by the university through the end semester examination while other two components are evaluated by institute during semester.

As per the suggestions received from industry and expert senior faculty members and directives of the Hon. Vice chancellor, the university decided to revise the existing syllabus of the MCA program from the academic year 2011 and made it more compatible with national and international level university. Series of meetings were conducted with various syllabus committee members and new latest topics of the computer applications are included. This will improve the quality of students of the university and fulfil the demand of industry.

## ME

In the year 2009 when ME Programs were affiliated with the university only 22 ME programs of 8 basic disciplines existed. In ME the Syllabus for all the courses were reviewed by expert faculty of syllabus committee appointed by the university and implemented. ME Program was designed for two year i.e. four semesters. Teaching scheme is finalized in four components like theory, practical, mid, and internal. Marks allotted for each component are 70, 30, 30, and 50 respectively. For non practical subject practical component does not exist. Theory and practical components are evaluated by the university through the end semester examination while other two components are evaluated by institute during semester.

Every year due to new approval of the ME programs in the different colleges by AICTE, new programs are affiliated by the university. In the year 2010, 16 more ME programs in 4 more basic disciplines are approved by AICTE and affiliated by the university. Again in the year 2011, 7 more ME programs in existing basic disciplines are approved by AICTE and affiliated by the university. Thus now the university offers 45 ME programs of 12 basic disciplines of engineering. Every year when new ME program is introduced, the university calls for a meeting of the expert faculty of the syllabus committee and introduces new syllabus.

In the year 2011, the university has also begun three new ME program in the collaboration with Sear Academy, Hyderabad and CDAC, Pune at VGEC, Chandkheda and BISAG, Gandhinagar respectively. The detail syllabus for these three programs has been finalized by consulting industry and academia.

## MPh

In the year 2009 when MPh Programs were affiliated with the university, only 6 MPharm programs existed. In MPh syllabus for all the courses was reviewed by expert faculty of syllabus committee appointed by the university and implemented. MPh Program was designed for two year i.e. four semesters. Teaching scheme is finalized in four components like theory external, theory internal, practical external and practical internal. Marks allotted for each component are 80, 20, 80, and 20 respectively. For non practical subject practical component does not exist. Theory external and practical external components are evaluated by the university through the end semester examination while other two components are evaluated by institute during semester.

Every year due to new approval of the MPh programs in the different colleges by AICTE, new programs are affiliated by the university. In the year 2010, 5 more MPh programs are approved by AICTE and affiliated to the university. Again in the year 2011, 3 more MPh programs are approved by AICTE and affiliated to the university. Thus now university offers 14 MPh programs. Every year when new MPh programs are introduced the university calls for a meeting of the expert faculty of the syllabus committee and introduces new syllabus.

*Prepared by: Prof R M Patel, Prof T A Raval and Prof Nirbhay Chaubey*

**APPENDIX 2****Report on Syllabi of Under-graduate Programs (BE and BPharm):****Degree engineering**

1. Total 100 degree engineering colleges are affiliated with the university with 35 different branches of engineering. In academic year 2011-12, total 46075 students of degree engineering are enrolled with the university.
2. Degree engineering is 8 semester (4 years) course with total credits of 244.
3. For all major branches of engineering, four mathematics subjects in sem-1/2/3/4, two management subjects in sem-4/5 and two institute elective (Interdisciplinary) subjects in sem-4/5 are offered.
4. For all major branches of engineering, project work is offered in the final year (sem-7/8) having total credits of 12 to 18.
5. Examination scheme for semester 1 to 6 for all branches of engineering

<b>Semester Degree engineering</b>	<b>University Exam (Theory) (E) Marks</b>	<b>Continuous evaluation (M) Marks</b>	<b>Practical Internal(I) Marks</b>	<b>Total Marks</b>
1 to 6 (Theory and Practical)	70	30	50	150
1 to 6 (Only Practical)	-	-	100	100

6. Examination scheme for semester 7 to 8 (final year) for all branches of engineering

<b>Semester Degree engineering</b>	<b>University Exam (Theory) (E) Marks</b>	<b>Continuous evaluation (M) Marks</b>	<b>University Exam (Practical) (E) Marks</b>	<b>Practical Internal(I) Marks</b>	<b>Total Marks</b>
7 and 8 (Theory and Practical )	70	30	30	20	150
7 and 8 (only Practical )	-	-	80	20	100
Project-1 (semester-7)	-	-	100	50	150
Project-2 (semester-8) 8 credit	-	-	100	50	150

<b>Semester Degree engineering</b>	<b>University Exam (Theory) (E) Marks</b>	<b>Continuous evaluation (M) Marks</b>	<b>University Exam (Practical) (E) Marks</b>	<b>Practical Internal(I) Marks</b>	<b>Total Marks</b>
Project-2 (semester-8) 12 credit	-	-	150	50	200
Project-2 (semester-8) 18 credit	-	-	200	50	250

7. Total 88 degree pharmacy colleges are affiliated with the university. In academic year 2011-12, total 1954 students of degree pharmacy are enrolled with the university.
8. Degree pharmacy is 8 semester (4 years) course with total credits of 244.

<b>Semester Degree pharmacy</b>	<b>University Exam (Theory) (E) Marks</b>	<b>Continuous evaluation (M) Marks</b>	<b>University Exam (Practical) (E) Marks</b>	<b>Practical Internal(I) Marks</b>	<b>Total Marks</b>
1 to 8 (Theory and Practical )	80	20	80	20	200

Prepared by: Prof. V.P. Patel and Prof. I.U.Ajmeri



**APPENDIX 3****Syllabus Report for Diploma Engineering**

Gujarat Technological University is established in the year 2008. Diploma programs are affiliated with the university from the academic year 2008 itself. The University has affiliated all government, grant in aid and SFI institutes from all over Gujarat. As per the University policy, syllabus of the Programs is reviewed by the expert and experienced faculty members from different institutes. Syllabus committee is formed for each branch of Diploma programs.

In Diploma engineering there are total 33 branches which are divided into five different groups, named as Mechanical, Electrical, Chemical, Civil and General group, which includes relative branches under one head. For example under the group of Electrical, all branches related to this group like Bio-Medical Engineering, Computer Engineering, Electrical Engineering, Electronics & Communication Engineering, Information Technology, Instrumentation & Control Engineering, Power Electronics Engineering, are covered under one group. The Diploma is awarded by earning 180/184 credits.

Syllabus for all Diploma courses is reviewed by expert faculty of syllabus committee appointed by the university. We have 4-5 subject experts for each branch and out of them we have nominated one expert as a coordinator who co-ordinates all the processes of syllabus and submit the final copy of the syllabus to the university.

Diploma programme is generally designed for six semesters. Whereas three branches Metallurgy Engineering, Textile Processing and Textile Manufacturing are run in seven semesters. Moreover there is Distance Learning Mode running for three branches named as DLM in Electrical Engineering, DLM in Mechanical Engineering, and DLM in Civil Engineering under Diploma programme designed in eight semesters. Diploma in plastic engineering and Fabrication Technology are also designed in eight semesters.

The teaching scheme of Diploma Engineering is finalized in three components like theory, mid and internal. Marks allotted for each component are 70, 30, and 50 respectively. Theory component is evaluated by the university through end semester examination while other two components are evaluated by institute during semester. In the final two semesters the internal component of 50 marks is divided into two parts. 30 marks out of 50 are allotted for external viva conducted by the university and 20 marks by institute as an internal component.

In the 13 branches of Diploma Engineering, Gujarat Technological University has introduced industry Defined Project (IDP) in the final two semesters in two phases. First phase has 4 hours and 4 credits where students will find out the industry defined project and will plan out strategies. The second phase in the final semester has 12 hours and 12 credits for the completion of the project.

This year Gujarat Technological University had introduced a new subject named as Contributor Personality Program (CPP) course, which is a compulsory subject having 4 credits over and above the existing credit structure, and will be taught by faculty of English to all the Diploma Engineering students of Semester-VI from this year onwards. The main objective of Contributor Personality Program is that Technology students should not only be excellently trained in the technological field, but they should acquire soft skills if they are to be successful. Every student must also learn about the techniques of effective participation in a group discussion. He/she must learn to prepare his/her resume and he/she should also

be groomed for presenting himself/herself at an interview. The students are prepared with the right mindset and right values.

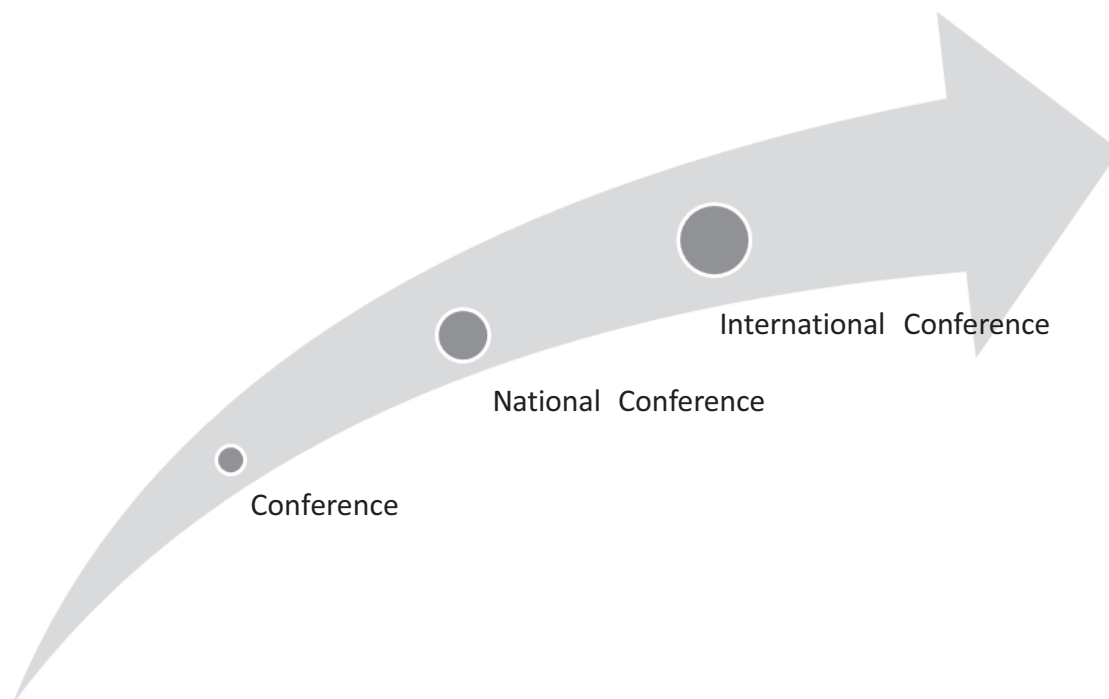
As per the directives of Hon. Vice Chancellor, "Dr. Akshai Aggrawal" Gujarat Technological University, has started the venture of restructuring syllabus for all the branches of Diploma Engineering. For that an industrial survey will be conducted covering almost 1000 industries of various clusters. A questioner is specially designed for each branch. Based upon the feedback from the industry, Gujarat Technological University will restructure the entire syllabus with the help of academic committee as well as industry experts.

*Prepared by: Prof. Almas Juneja and Prof. U.Y.Nanavati*

## Appendix 4

### Report on Conferences, Faculty Development Programs, Workshops, Seminars and other Academic Events:

#### Report On Events



#### Conferences

- ✓ Energy, Environment & Water on 3rd Oct. 2011 at Conference Hall, GTU.
- ✓ National Conference on Technology and Management on 20-21 Jan. 2012 at Sankalchand Patel College of Engineering.

#### National Conferences

- ✓ 450 participants had participated in first national conference on Business Ethics for Global Success of Indian Business on 25-26 Sept. 2010 at AMA, Ahmedabad.
  - The First National Conference on "Business Ethics for Global Success of Indian Businesses" was organized by Gujarat Technological University on 25th and 26th September, 2010 at J. B. Auditorium, Ahmedabad Management Association, Ahmedabad.
  - The main invitees in the conference included MBA Students, Faculty fraternity, Trustees, Directors of Educational Institutions and a large number of people from the corporate world.
- ✓ Conference on Environment and Green Technology on 22nd Dec. 2010.
- ✓ 400 participants had participated in first finance conference on contemporary issues on finance on 26th & 27th Aug, 2011 at AMA, Ahmedabad.

- The 1st Gujarat Technological University National Conference on Finance (GTUNC) provided an open platform to bring together scholars nationwide to present research and to stimulate discussions on new developments in finance. It was organized by GTU, Ahmedabad from January 21 to 23, 2011.
- The Conference was aimed at providing a common platform to academicians, practitioners and policy makers. The theme of the Conference was Indian Capital Markets: Successful Strategies for India and beyond.
- ✓ 250 participants had participated in Second National Conference on Business Ethics & Corporate Governance on 23-24 Sept. 2011 at FGI Business Center, Vadodara.
- The 2nd National Conference on 'Business Ethics and Corporate Governance' was organized by Gujarat Technological University (GTU), in collaboration with Federation of Gujarat Industries (FGI) and SMJV's C K Shah Vijapurwala Institute of Management (CKSVIM) at the FGI Business Centre on 23rd and 24th September, 2011. The occasion was inaugurated by a plethora of people from industry and academics. The two day conference intended to brainstorm the underlying ethical issues.
- ✓ 400 delegates participated in the Research Fair at LDCE, Ahmedabad on 13-14 May, 2011.

### **International Conference**

- ✓ 150 participants have taken advantage of the First International Conference on Dynamics of Global Recession: Economics and Corporate Strategies for Survival and Growth, on 6th to 8th Jan. 2012 at Parul Group of Management Institute, Vadodara.

### **Faculty Development Programs**

- ✓ 145 Faculties participated in FDP for MBA on 17th - 22nd Aug. 2010 at CKSVIM, Vadodara.
- ✓ Experiential Learning in Engineering with the faculties of Oklahoma University, USA at AMA, Ahmedabad on 8th to 10th Jan. 2011 in which we signed an MOU with Oklahoma University, USA.
- ✓ FDP in Core Java for MCA on 21-22 Jan. 2011 at Chaudhari Technical Institute, Gandhinagar
- ✓ 150 Faculties participate in FDP for MBA held on 27-28 Jan. 2011 at AMA, Ahmedabad.
- ✓ Selecting Research Problem and Preparing Research Proposal for Ph.D. (Management) by CDAC, Pune at AMA, Ahmedabad on 19th Feb. 2011.
- ✓ Contributor Personality Program at AMA, Ahmedabad on 23rd April, 2011.
- ✓ 475 faculties have taken advantage of the FDP held for new MBA Program on 11th to 15th July, 2011 at LDCE, Ahmedabad.
- ✓ Patenting in Pharmaceuticals on 3-4 Sept. 2011 at AMA, Ahmedabad.
- ✓ Patenting in Engineering on 24-25 Sept. 2011 at Science City, Ahmedabad and on 7-8 Jan. 2012 at VVP College, Rajkot
- ✓ Leadership Excellence Meets on 1st Oct. 2011 at AMA, Ahmedabad by Management Guru Dr. Shailesh Thaker.
- ✓ Training on Evaluation System for University on 17th to 21st Oct. 2011 at GTU (ISTE Program).

- ✓ Training on Web Designing on 8th to 19th Nov. 2011 at GTU (ISTE Program).
- ✓ Teaching the Concept of Script, Motivational Phases and Impact on Interpersonal Relationships using the film Trilogy Godfather on 26-27 Nov. 2011 at AMA, Ahmedabad.
- ✓ ISTE & GTU training program for Database Management on 28th Nov. To 9th Dec. 2011 at LDCE.
- ✓ Swami Vivekanand Contributor Personality Development Program:
  - On 26-27 Nov. 2011 at AMA, Ahmedabad.
  - On 3-4 Dec. 2011 at SCAT Institute, Surat.
  - On 10-11 Dec. 2011 at T.N. Rao College, Rajkot.
  - On 17-18 Dec. 2011 at CKSVIM, Vadodara and SCAT, Surat.
  - On 23-24 Dec. 2011 at AMA, Ahmedabad and Christ College, Rajkot.
  - On 7-8 Jan. 2012 at SLIMS - Ahmedabad, GGP - Surat, Marwadi Institute - Rajkot and Babaria Institute - Vadodara.
  - ICT Training from 24 - 27 March, 2010 at GTU.
  - Continuing Education Programme in Digital Control from 6 -11 Dec. 2010 at L.D.C.E., Ahmedabad
  - STTP on Engineering Electromagnetics from 6-10 Dec. 2010 at SVNIT, Surat.
  - STTP on Designing Question Paper for Civil and Allied Engineering Discipline from 27 Sept. 1 Oct. 2010 at NITTTR, RCTI, Ahmedabad.
  - STTP on Designing Question Paper for Science, Math and other basic courses from 22 - 26 Nov. 2010 at NITTTR, RCTI, Ahmedabad.
  - STTP on Designing Question Paper for Electrical, Electronics and Allied Engineering Discipline from 5 - 9 July 2010 at NITTTR, RCTI, Ahmedabad.
  - STTP on Designing Question Paper for Mechanical Engineering and Allied Discipline from 17 - 21 January 2011 at NITTTR, RCTI, Ahmedabad.
  - Training Programme on Mathematics at IIT, Bombay from 29 June - 8 July 2009.
  - Training on Automation and Control from 14 - 19 June 2010 at L.D.C.E. Ahmedabad.

### **Workshops**

- ✓ Workshop on Marketing the MBA Program at AMA, Ahmedabad on 29th Nov. 2010 where 50 Directors/Principals of MBA colleges where the admission is low.
- ✓ Android Application Development at LDCE, Ahmedabad on 30th July to 6th Aug. 2011.

### **Seminars**

- ✓ Business Environment at S.R.Luthra Institute of Management, Surat on 20th Feb. 2011.
- ✓ Smart Grid Technology on 1st Oct. 2011 at AMA, Ahmedabad.
- ✓ What we should learn from the life of Steve Jobs on 8th Oct. 2011 at Vishweshariya Hall, LDCE.
- ✓ Skill Council for Marketing on 1st Oct. 2011 at S.V. Institute of Management, Kadi.
- ✓ CSIR on 19th Nov. 2011 at AMA, Ahmedabad.
- ✓ TPO Meet on 3rd Dec. 2011 at Mahatma Gandhi Labour Institute, Ahmedabad.

### **Other Academic Events**

- ✓ Event on Corporate Combat was organized by H.N.Shukla College, Rajkot on 8th Oct. 2010.
- ✓ ACMA IT Fair-2010 was organized in Drive In Ground on 17th to 20th Dec. 2010.
- ✓ Celebration on Success at Paryavaran Mandir, Naroda on 12th Aug. 2011.
- ✓ IDP competition on 17th Sept. 2011 at SCET, Surat.

*Prepared by: Prof. Almas Juneja*

**APPENDIX 5****Report on MoUs between GTU and Other Organizations:**

**Details of MOUs executed between  
GTU and Industrial Associations on 10th January, 2011 at PDPU, Gandhinagar**

<b>Sr. No.</b>	<b>Name of University</b>	<b>Name of the Association</b>	<b>Signatories</b>
1	Gujarat Technological University	Jamnagar Chamber of Commerce & Industries	Shri Jitendra H Lal, President
2.	Gujarat Technological University	Gujarat Chemical Association	Mr. Jaimin Vasa, President
3.	Gujarat Technological University	Vatva Industries Association	Mr. Archish Shah, President
4.	Gujarat Technological University	Gujarat Chamber of Commerce & Industry	Mr. Chintan N Parikh, President
5.	Gujarat Technological University	The Associated Chambers of Commerce & Industry (ASSOCHAM)	Ms. Bhagyesh Soneji, Chairperson, ASSOCHAM, Gujarat Chapter, Ahmedabad
6	Gujarat Technological University	Rajkot Engineering Association	Mr. Bhavesh M Patel, President
7.	Gujarat Technological University	Federation of Gujarat Industries	Geeta Goradia President
8.	Gujarat Technological University	Baroda IT Association	Nilesh Joshi President
9.	Gujarat Technological University	Torrent Power	R. Hari Vice President (Human Resources)

**Details of MOUs executed between  
GTU and Foreign Universities on 10th January, 2011 at PDPU, Gandhinagar**

<b>Sr. No.</b>	<b>Name of University</b>	<b>Name of the Organization</b>	<b>Signatories</b>
1.	Gujarat Technological University	Kansas State University	Dr. Kirk H Schulz President
2	Gujarat Technological University,	Oklahoma University	Dr. Subhas Shah Mewbourne Dr. Patricia Hardre' Dr.Musharraf zaman Dr. Farrokh Mistree



Coordinator, OU-Gujarat Initiative

**Details of MOUs executed between  
Gujarat Technological University and Industries on 10th January, 2011 at PDPU, Gandhinagar**

<b>Sr. No.</b>	<b>Name of University</b>	<b>Name of the Organization</b>	<b>Signatories</b>
1.	Gujarat Technological University,	Welspun India Ltd.	Mr. Bharat Bhushan Sharma, Director-Operations
2	Gujarat Technological University,	AIA Engineering Ltd.	Mr. Nilkamal Vakil, Ex Director AIA Engineering Limited.
3	Gujarat Technological University,	GeoGlobal Resources	Mr. Paul Miller President

**Details of MOUs executed between  
Gujarat Technological University and Other organization**

<b>Sr. No.</b>	<b>Name of University</b>	<b>Name of the Organization</b>	<b>Signatories</b>
1	Gujarat Technological University Date : 29th June, 2011	SEER Akademi Pvt. Ltd.	Mr. Vidyasagar K.R. Director - Business
2	Gujarat Technological University Date : 13th July, 2011	Centre for Development of Advance Computing (CDAC)	Dr. U.R.Poharkar Registrar
3	Gujarat Technological University Date : 22nd December, 2011	Society for Creation of opportunity through Proficiency in English (SCOPE)	Mrs. Jayanti Ravi, IAS Commissioner Higher Education, CEO SCOPE
4	Gujarat Technological University Date : 9th January, 2012	The Gujarat Institute of Civil Engineers &Architects (GICEA)	Bharat Modi President
5	Gujarat Technological University Date : 10th January, 2011	The University Grants Commission	Secretary UGC

**APPENDIX 6****Report on Collaboration with University of Alberta:**

As part of its Global Initiative Program, Gujarat Technological University (GTU) organised 6 weeks Summer Training Program (from 17th June to 30th July 2011) at **University of Alberta (UoA)**, Canada. 34 students of MBA from different institutions across the state of Gujarat, led by Professor Bhavin Pandya participated in the program. The following two subjects (1) International Business Code 840002 (2) Strategic Management Code 830001 from the MBA Second Year's curriculum were taught by the professors of School of Business at UoA.

As per the MOU signed between GTU and GeoGlobal Resources Inc (GGR) of Calgary, Canada, the program's academic and administrative expenses were provided by GGR. Students paid their travel, boarding and lodging expenses.

To strengthen the academic collaboration between GTU and UoA, Dr. Edy Wong, Dean of Management from University of Alberta, Canada visited GTU on Friday, 21st October 2011. The meeting was attended by Dr. A.K. Aggarwal, Hon. Vice Chancellor along with Dr. G. P. Vadodaria, I/C Registrar, Dr. Rajul Gajjar, Dean PG and Research, Dr. Jagdish D. Joshipura, Director, SLIM, Ahmedabad, Prof. Bhavin Pandya, Professor and Head, MBA Program, S.V. Institute of Management, Kadi and Prof. Nirbhay Chaubey, OSD. Dr. Edy Wong initiated discussion with the group and asked about the feasibility of 1+1 MBA programme. In response to the same Dr. Rajul Gajjar said it may happen that statutory bodies of India may have problem with 1+1 programme. So she was sceptical about 1+1 programme format. Prof. Bhavin Pandya said, "To the best of my understanding, AICTE comes in to the picture when any foreign collaboration takes place between a College and a foreign University. Since GTU is a University, it can start such kind of programmes without any restriction from AICTE."

Dr. Aggarwal asked Dr. Wong about feasibility of sending University of Alberta's students to GTU for a semester or a 6 to 8 weeks programme. He also added that GTU has programs on Gandhian Ethics in Business, Asian Business- Immersion Study, Global Business- Immersion study, etc. Dr. Aggarwal also shared GTU initiatives in terms of Innovation Sankuls and Skills council.

Dr Wong said that he could send some under graduate students to India. He added, "Normally the Post Graduate students do not visit other countries. But the number of Under Graduate students, who visit India, may not be more than 6." He said that IIM-Bangalore was associated with UoA and Canadian students might visit Bangalore and Gujarat to study some industries in India. Dr. Wong said that he would discuss the issues with Dean of School of Business and would revert with further progress. Prof. Bhavin Pandya said that he would coordinate the activity on behalf of GTU. Dr Wong was happy with the visit to GTU and at the end of the day he committed that he would ask Dr. (Ms.) Joan White, Associate Dean, School of Business-MBA programme, University of Alberta to visit GTU along with the Dean- School of Business, Dr. Vikas.

Consequently, Dr. (Ms.) Joan White visited GTU on 1st December 2011. She met Dr. Akshai Aggarwal, Hon. Vice-Chancellor, Gujarat Technological University. The GTU Team consisted of Prof. Bhavin Pandya- HOD, S.V. Institute of Management, Kadi, Dr. Jagadish Joshipura- Director- SLIM, Ahmedabad, Dr. Chinnam Reddy, Director, MBA-Programme, MEF, Rajkot and Dr. P.G.K. Moorthy, Director, PIEM, Waghodiya, Baroda.

Dr. Joan White initiated the discussions about the feasibility of 1+1 MBA programme. Dr. Joan White was

little perplexed about the GTU's operations and how the body manages such a large group of institutions imparting MBA programme and other programmes. She asked about the proposals of GTU for UoA for further deliberations. Hon. Vice Chancellor of GTU discussed the program of Ph.D. Co-supervision by the faculties of UoA with GTU. Dr. Aggarwal also said that GTU might invite the faculties of UoA to India during the research week at GTU. Dr. Joan White said that she would discuss the idea of co-supervision with the faculties of UoA for joint supervision and research work with the faculties and students of GTU. Regarding 1+1 MBA programme she said that two years experience is compulsory for getting enrolled in the MBA programme at UoA. Dr. Aggarwal said that the 1+1 programme may be offered to only those MBA aspirants who had two years of experience. Further, Dr. White said the batch size of 30 to 40 will be appropriate to start the programme and she would discuss the proposed 1+1 MBA programme with Dr. Vikas and the interim Dean, School of Business- UOA. At last Dr. Joan White told Prof. Bhavin Pandya that she would try to sign an MoU in the month of January 2012 with GTU for the proposed 1+1 MBA programme. In the evening, Dr. G. P. Vadodaria and the Deans met Dr. Joan White at dinner.

*Prepared by: Prof Nirbhay Chaubey*

**APPENDIX 7****Report of Global Immersion Study program:**

47 students are visiting three countries under the Global Immersion Study program.

***S. V. Institute of Management, Kadi and Global Institute of Management, Gandhinagar***

Country of visit: ***Mauritius***

No. of students visiting: 5 +1

University of Mauritius has confirmed to assist our students. The University is reopening on 16th January 2012 after Christmas break. They will assign a professor and will arrange industrial visit to the students. They have also talk with the free accommodation to our students at University Campus or will help us to assist to get them through Indian High Commission.

The person with whom we are in touch at university of Mauritius:

Dr Priya Baguant, Senior Lecturer, Human Resources and Employee Relations Department of Management Faculty of Law and Management India High commission and Mauritius Chamber of Commerce has been contacted for further assistance we are awaiting their reply.

**Bhagwan Mahavir College of Management, Surat**

Country of Visit: ***Nepal***

No. of students visiting: 33

Companies and sectors chosen: FMCG and Cement Industries

Date visiting: 22nd January 2012 to 2nd February 2012.

Sabar Institute of Management, Himmatnagar

Country of Visit: Thailand

No. of students visiting: 8

Industry chosen: Gems and Jewellery

Awaiting reply from Thailand Company. Probable date of visit is: first week of February 2012

*Prepared by: Hiren Thaker*

**APPENDIX 8****Report of GTU Innovation Council:****GTU INNOVATION COUNCIL**

([http:// www.gtuinnovationcouncil.ac.in/](http://www.gtuinnovationcouncil.ac.in/))



The Report contains information about GTU Innovation Sankuls, Udishu Innovation Clubs, Integrated Training and Placement Cell and the SKILLS COUNCILS FOR Immersion Studies at the MBA program..

Gujarat Technological University

(<http://www.gtu.ac.in/>)

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## GTU INNOVATION COUNCIL

### A New Model of Collaboration for Innovation

GTU won the prestigious World Education Summit award in 2011 within 8 month of the inception of the GTU Innovation Council for its unique work in bridging the gap between industry-academia and innovation. At a meeting of Vice-Chancellors in Delhi on 22-23 March 2011, the concept of such clusters was recommended for use by all the Universities. Union HRD Secretary Ms Vibha Puri Das has taken a note of this approach for possible scaling of this attempt across the technical education ecosystem of the country.

Though GTU Innovation Council's first objective is to nurture creativity and innovation within the University community, it has been designed to act as a catalyst of change for the whole of the society. The Council is sending out its students and teachers to businesses, industries and various organizations to continuously prepare projects and case studies for changes, which may lead to improvement in products or processes. When 400,000 students and 27,000 teachers (our likely numbers in 2013-14) start working as a force for innovation, we expect that the education and research at the University will be rejuvenated through anchoring it with the real-life problems in businesses, industries and the society. More importantly it will make our 34,500 SMEs (small and medium enterprises), spread over 166 industrial estates, and our society more innovative. GTU Innovation Council has set up 25 GTU Innovation Sankuls, which are regional communities of GTU educational institutions and the industries in the region. GTU has asked every institution, affiliated with it, to set up an Udisha Club for mapping every Technology student with an appropriate industry and for developing the soft-skills of the students. More than 300 Udisha Clubs have already been established. The process has been developed jointly with Techpedia and it is being monitored to ensure that the following objectives are met:

- a) Promotion of originality among technology students by making it impossible for them to do what has been done before. (This will be possible only when they can find out what has been done before.)
- b) Putting the technical problems of MSMEs on the agenda of students so that research and development at GTU is relevant to the needs of the industry and affordable solutions can be generated in real time.
- c) Developing among the budding technology practitioners design oriented thinking<sup>1</sup>
- d) To pose challenges to students to address unsolved problems of our society. Gandhiji had announced an award of 7700 pounds, (approx Rs one lac ) to redesign charkha-spinning wheel. Today the value of this prize may be more than Rs 10 crores. Industry associations, government entities and others can offer attractive prizes for solving those problems which have remained unsolved so long.

<sup>1</sup>On 26th August 2011, GTU Innovation Council organized a highly successful and inter-active session of GTU Students with Dr Vikram Parmar, (adjunct faculty with the department of Industrial Design Engineering at TU Delft. Netherland). Students from various fields like biomedical engineering, electrical engineering, Textile design/process, Mechanical engineering participated in it.

- e) Developing high tech capabilities through network platforms so that India becomes a hub for high tech outsourcing for the world in future and does not serve only the low tech needs.

- f) Connecting the technical students with the problems of informal and unorganized sector and grassroots innovators
- g) To harness collaborative potential of students across disciplines and colleges to solve persistent problems of our country in formal and informal sector
- h) To explore kho kho model (relay) of product development. Thus if one student group has brought the solution of a particular problem to a specific stage, then the next group within that department or somewhere else should be able to build upon it to take it forward.
- i) Promoting both IPR protected and open source technologies and eventually develop an online virtual incubator.

It is obvious that no one institution or department can accomplish any of these goals. We have to create a collaborative culture so that problems of small enterprises, informal sector and local communities in disadvantaged regions can be solved in a time bound manner. Every time a student solves a real life problem, he /she does not merely become a better technologist but also a better human being. Even when a student group is unable to solve a complex technical problem, at a university, an honest failure, which defines the path for a second attempt, is considered a worth-while contribution.

GTU is working to establish **Sectoral Innovation Councils (SIC)** in specific fields so that students may be able to tap the expertise of its own faculty members as well as that of the mentors from outside the University. Every SIC will be a virtual community of GTU developers and researchers, faculty members, professionals from the industry and retired scientists, and engineers and scientists of national laboratories, interested in the field. Techpedia is helping bring the mentors from outside the University by using its network.

The work on the student projects may help the students in getting better placements since the employers may be able to track the chosen projects, if allowed by the team of students and faculty, and thus select bright hard working teams. Some students may become entrepreneurs by commercializing the product developed by them as a part of their Final Year project. In May 2012, when the first cohort of GTU students present their Final Year projects for examination, the University is planning to collaborate with Entrepreneurship Development Institute, Gandhinagar, the Incubator at IIM Ahmedabad and iCreate for helping its graduating students. GTU has organized two workshops on IPR issues at Ahmedabad. The workshop on Sept 3-4, 2011 was for faculty members of Pharmacy. On Sept 24-25, 2011 was organized a similar workshop for faculty members of Engineering. Each of the two workshops had about 140 participants.

#### **Recent accomplishments during the past 6 months:**

GTU Innovation Council has linked its 495 colleges/ institutions/ polytechnics with **166** industry clusters across Gujarat. These innovation zones are facilitating close interaction and cooperation between the industries, students and faculties. The idea is to create a platform where industries can pose real life problems which would then be solved by students as a part of their academic program. This will enrich the learning process of students, inculcate entrepreneurship and provide industry with solutions to their problems. During this process, it has been observed that such a platform often brings forth low cost, innovative solutions.

- To facilitate this process, GTU has integrated the process into the norms of academic evaluation. It has proposed **to award 6 ( 2+4) credits in the 'last but one semester**. Two credits



would be awarded to student for identifying an industry problem (Industry defined problem) and four credits for coming up with a solution to that problem. During the last semester, the project has been allocated **8-12 credits, depending upon the branch of study**.

- The capacity of each GTU Innovation Sankul /cluster is being built by involving faculty members, professionals, students and leaders of industries as stakeholders in the process. It is encouraging stakeholders in each Sankul to develop a program of activities through joint efforts. At the end of a year, the activities/program will be reviewed.

During this year, both students and faculty members have worked **jointly** with industries to determine the **Industry Defined Problems (IDP)**. These may relate to improving the quality of the existing products, or modifying the process to reduce energy consumption or reduce waste or to innovate new products. All the pre-Final year students have been directly linked to industries.

**50,010** technical students have participated in the program during this academic year. The 'final year degree engineering students' have mapped **7,000 MSMEs** across the state for benchmarking industrial needs and process challenges. These IDPs (industry defined projects) from SMEs are being used as their final year projects during 2011-2012 across the state in the Engineering colleges and polytechnics in Gujarat.

- **Fifty** prominent industry leaders have joined the above Innovation movement as Chairpersons /Dy Chairpersons (Industry). Every Sankul is jointly managed by a Chairperson (Academia) and a Chairperson (Industries). More than **1000** industries/MSMEs have become directly involved through membership of the **25** GTU Innovation Sankul/cluster Committees.
- **8890 professors** are proposed to be mapped according to their area of expertise to create 50 Sectoral Innovation Councils to take care of innovation drive in particular sector of engineering and allied science. The agenda of **Sectoral Innovation Councils (SIC)** has been declared in July 2011. Every SIC will include expert mentors from industry/MSMEs or academia. Initially SICs will work for helping Final Year students in their projects.

The SICs may also take up projects of interest to pre-Final Year students. For instance, the SIC in Energy and Environment plans to map the potential for energy conservation in 200 SMEs in Gujarat during the next semester by involving Pre-Final Year students, who have an interest in the field. As a pilot project, 25 cases have been completed by GTU's Diploma Engg students.

- Most of the Gujarat Industrial Development Corporation's industry clusters have been linked to the 25 Innovation Sankuls. Students and faculties have participated in **Industrial Shodh Yatras** in all these SME clusters as a part of the Summer of Innovation program of GTU to locate the SME issues which can be taken up as final year projects by 50,000 young minds both in BE and DE (Diploma). An algorithm has been designed to harness the efforts of half a million human month's effort by these young students mentored by both faculties and entrepreneurs from MSMEs.
- More than **five dozen socio-technical issues** related to socially backward regions of the country have been converted as final year projects in engineering colleges involving quite a number of grassroots innovations. The above effort will motivate the young minds of the

country to solve real life issues of not only MSMEs/Industries but also to address issues of socio-technical needs of the most back ward rural sectors/spaces. This will ensure that the effort becomes more holistic, inclusive. Our system must consistently strive for establishing a linkage between the formal and informal sector-knowledge ecosystems and for developing young minds to become more meaningful techno entrepreneurs, in the days to come, by solving real life issues of MSMEs and the society.

### **Ten Key Interventions by GTU:**

1. Creating User Defined Innovation Eco-system
2. Mapping of Industrial Needs and Academic research, Exchanging mentors from industry and academia/ formal and informal domain
3. Distributing and democratizing innovation management process by creating 300 innovation centers
4. Industry-Academia cluster development involving industrial estates and GTU colleges
5. Creating sustainable motivation for students and researchers to scale the output
6. Developing relay model of innovation and student entrepreneurship module development at very early stage.
7. Emphasis on process innovation and Socializing Technologies
8. Protecting IPR, Intellectual property rights and bringing Saraswati and Laxmi together (promoting knowledge economy along with innovations.)- Fifty Senior Professors have started creating framework within the university by now to monitor the above.
9. Promoting Frugal/Gandhian Innovations exclusively in Diploma Education Ecosystem.
10. Harnessing the numerous months of efforts of research for productive innovation creation by young technical students and faculties by vertical integration of skills, time and existing resources.

### **Case Study of the GTU Innovation Council by Professor Anil Gupta of IIM, Ahmedabad:**

The project of GTU Innovation Council has already won appreciation from the Division of Green Technology, National Research Foundation of Korea. His Excellency Dr Maximus Ongkili, Science, Technology and Innovation Minister of Malaysia said that it was the kind of project, which every University should take up, during his visit to IIM, Ahmedabad on 23rd Feb 2011. The delegation of Social Entrepreneurship department of Norwegian University of Science & Technology has liked the attempt of forging industry-academia relationship and has decided to use it in Norway for creating an environment for innovation. A case study on GTU Innovation Sankuls has been presented at Munich Venture Summit in Germany and in Spain by Prof Anil Gupta, IIM-Ahmadabad.

### **The State governments of Punjab and Madhya Pradesh provide support to Students for working on their IDPs:**

PUNJAB: Dr. Aniruddh Singh, Dean, Punjab Technical University visited GTU on 24th January 2011. He discussed the work of GTU Innovation Council with the Vice-Chancellor of GTU and he was provided with a copy of the detailed document defining the working of the GTU Innovation Council. Thereafter PTU

decided to implement this project at their University on the same lines. The Board of PTU allocated Rs 3 crores and the VC was authorized to release the funds to students for working on their IDPs according to the need of each Final Year project.

The Vice-Chancellor of PTU has released amounts, which vary from Rs 5,000 to Rs 25,000 according to the needs of the students' projects, as assessed by him.

(Reference: [http://www.ptu.ac.in/userfiles/file/IDP/file1\(3\).PDF](http://www.ptu.ac.in/userfiles/file/IDP/file1(3).PDF) as on 10th December 2011)

MADHYA PRADESH: On 9th December 2011 Shri Sanjay Singh, (Secretary, Department of Technical Education & Skill Development, Government of Madhya Pradesh, Bhopal) and Prof Piyush Trivedi (VC, RGPV) were together at a colloquium on Innovations in Public Systems, organized by Center for Innovations in Public Systems (CIPS), Government of India. Mr Hiranmay Mahanta presented the 'Ten Key Interventions' by GTU Innovation Council.

Shri Sanjay Singh informed Mr Hiranmay Mahanta that MP Government had allocated a corpus fund of Rs 10 crore to promote innovations of students in various engineering colleges including polytechnics. The fund has been put under a Committee chaired by Prof Piyush Trivedi, the Vice-Chancellor of the Technology University of Madhya Pradesh.

#### **Visits of GTU students to industry clusters:**

Following are some of the Clusters which were visited by GTU students. In some clusters more than 50 Teams from various Engineering discipline went on Industrial Shodh Yatras.:

- |  |  |
|--|--|
| 1. Readymade Garments, at Ahmedabad      | 9. Wrist Watch & Components at Rajkot                      |
| 2. Drugs & Pharmaceuticals, at Ahmedabad | 10. Power looms, Diamonds, Gems & Jewellery, Jari at Surat |
| 3. Dyes & Intermediates, at Ahmedabad    | 11. Pottery & Ceramics at Surendranagar (Than) & Wankaner  |
| 4. Re-rolling Mills at Bhavnagar         | 12. Ceramic Products at Thangadh and Morbi                 |
| 5. Plastic Industry at Dhoraji           | 13. Petrochemicals at Vadodara                             |
| 6. Brass Parts at Jamnagar               | 14. Diesel Engines, at Rajkot                              |
| 7. Chemicals at Vapi & Ankleshwar        | 15. Electric motors, at Rajkot                             |
| 8. Ferrous Castings, at Rajkot           | 16. Machine Tools, at Rajkot                               |

#### **Udisha Innovation Clubs:**

To take advantage of the Sankuls and to organize other placement activities at each College, every GTU college is setting up a Club. The Club is called the **Udisha<sup>2</sup>** (Universal Development of Integrated Skills through Higher Education) **Club of the College**.

The principal, the Training and Placement Officer, the other faculty members and the students work to establish a close and continuing inter-action between the industries and the College.

**Placements:** The Club will form a Placement Committee and will work so that every student gets an excellent placement after she/ he completes his/ her studies.

#### **Additional Activities of the Club for MBA Colleges:**

- To work with Skills Councils for immersion studies in all the courses
- To organize programs for strengthening the country-study program for the countries, selected by the College

A team of **50** Co-Chairmen, **160** Directors in **5** major disciplines, **495** Principals and **4000** students are direct members and change makers of this movement. Each Sankul/Innovation Cluster is having on an average of **3200** students and **550** faculties and nearly **3-4 SME** clusters surrounding it. It is expected that each Udisha Innovation Club will engage in scouting the necessary policy inputs and discuss them at each Sankul Committee meeting to develop an inverted and inclusive model of innovation management ecosystem.

<sup>2</sup>The name has been borrowed from the Clubs, being promoted by the Commissioner for Higher Education, through the Knowledge Consortium of Gujarat.

#### **GTU Integrated Training & Placement Cell**

On 3rd December 2011 at Mahatma Gandhi Labour Institute, Ahmedabad, about 300 TPOs from Colleges/ Institutes and Human Resource Professional from various Industries were invited by GTU to discuss the road map for its Integrated Training and Placement cell. **Dr. Hasmukh Adhiya (IAS)**, Principal Secretary, Education Department, Government of Gujarat, **Dr. Nandini Kanan** from Knowledge Consortium of Gujarat, **Mr. V. Srinivas**, CEO, Illumine Knowledge Resources Pvt. Ltd., Mumbai, Mr. Chirag Dhebar, Head Practice Delivery, Global Consulting Practice, TCS, **Mr. Nishad Mehta**, in-Charge, Training & Development, L & T Power Ltd and **Mr. Vishal Chhawchharia**, CEO, Hidden Brains were some of the resource persons, who guided the proceedings of the day-long intensive workshop.

ITAP will build the capacity of the training and placement offices at every College and will work to provide common facilities to all its students.

It will also be able to help large companies reach out to the best of GTU's graduates.

#### **Functions of I-TAP:**

1. To build the capacity of the TPOs / Student Placement Coordinators and their offices
2. To make it possible for TPOs to mutually help through sharing of useful information and best practices.
3. To start inviting MNCs and large companies, which can offer a salary of Rs 6 lac pa or more.
4. To invite experts from industries, who have given IDPs, to visit the Colleges/ Polytechnics/ Institutions and to discuss with the students the progress of the projects and the expectations of the industry from new engineers.
5. To develop specializations about the needs and the developments in particular sector of industries, through one or more TPOs (The needs of IT/CSE, Manufacturing and different branches of engineering / Pharmacy may be different.)

6. To develop a common database format, which may be accessed by HR Officers of the recruiting companies at the Colleges / University
7. To help TPOs and the Udisha Clubs impart training about pre- placement skills and preparation of necessary material to students at every College/ Polytechnic/ Institution.
8. To support not only placement in businesses and industries but also to provide support to students who may be opting for entrepreneurship/higher education and research.
9. To move towards empowering students to largely manage placement with guidance and information from the TPOs (The Placement activity at IITs and IIMs is led and organized by students.)

Through a Call placed on the web-site, the Training and Placement Officers of the Colleges were asked to send their nominations for I-TAP cell.

On 13th January, 2012, Dr Akshai Aggarwal, Vice-Chancellor of GTU declared the formation of the ITP. It's a cluster of 49 Training and Placement officers spread all over the State and from different professional institutions (BE, DE, MBA, BPharm, MPharm, ME, MCA). The Executive Committee met in a day-long meeting to kick-start its work.

#### **The Executive Committee of I-TAP**

Prof. Pawan Dwivedi, BVM Engg College, V.V. Nagar-Co-ordinator

Prof. Ajit Shah- SVIT, Vasad

Prof. Amol kolte- Parul group of institution

Prof. Manish Gaharwar- L.J. Institute of computers

Prof. Nilesh Jha- Gov Polytechnic, Ahm

Prof. Krunal Patel- SPCE, Visnagar

Prof. Golani Jyoti- Vadodara Institute of Eng

Mr. Ankit Shah, K.P. Patel School of Mgt & Comp Studies, Kapadwanj

I-TAP decided to work through seven regional committees. During the month of January 2012, all the seven Regional Committees will start working.

Moreover I-TAP will work to add placement component to all the meetings of Sectoral Innovation Councils.

#### **GTU Skills Councils for Immersion Studies**

GTU has set up three MBA Skills Councils in Financial Services, Human Resources and Marketing Management. The three Councils have 12, 8 and 7 Sectoral Panels respectively. Each Sectoral Panel is co-Chaired by a Director of an MBA College and a leading professional from industries and businesses. 25 top notch professionals have joined **this first initiative, taken by any technology University in India.** The first objective of the Panels is to help MBA students of GTU have immersion studies as a part of the program. The Councils will also help make the respective business segments more professional and

will help develop systems, which would be able to help the industries all over India and the world, at large. An active association with industry professionals will make the research work at the University more firmly anchored in the needs of industries and businesses. The Councils will study and do research on the skill sets and certifications required in the three areas. In addition the Skills Councils will be able to help GTU design and implement full length and short term programs for re-training of industry professionals.

Dr. PG K Murthy, Prof. Trupti Almoula and Prof Bhavin Pandya accepted the responsibility as the Champions of the three Councils.

Leading professionals like Dr. J H Shah, Chairman of Market Creators Ltd, Shri Percy Bharucha , Managing Director of Kallurpur Co-operative Bank, Shri. R M Kapadia , Director of Alembic Ltd, Ms.Vibhuti Bhatt, Director of One Advertising , Shri S K Raijada, Vice President (Corporate HR) of Piramal Glass, Ms. Neetu Wadhawan, Vice President -HR of Cadila Health Care, Shri Deepak Sachde and Shri . Chetan Kothari, President of Rajkot Management Association , Shri Yashwantsingh Pawar Head(HR) of Apollo Tyres, Shri Vikram Singhal, MD of Gulbrandsen Technologies, Shri Ketul Contractor, Asst Vice President of FTKMC, Shri Ajit Jain, Godrej Ltd, Shri Parimal Vasavada, GM of Hazira LNG and Port Cos, Shri Sanjay Chakraborty, Associate Vice President of Triton Communications and others were present at the day-long meeting. The meeting was co-chaired by Dr.P G K Murthy and Dr. S O C Junare , Deans , Faculty of Management, GTU. Shri D C Anjaria, Member, Board of Governance of GTU has become associated with the Skills Councils.

**APPENDIX 9****Report of GTU Research Boards:**

GTU has set up two boards, (A) Board for Environment & Green Technologies

(B) Board for Mobile Computing and Wireless Technologies

**(A) Board for Environment & Green Technologies:**

The Mission is to:

- organize different seminars under the head of this board.
- convert each College to a Green College, after establishing standards & norms for Green Colleges.
- start Industrial projects in Green Technologies
- conduct Environmental Mapping.
- make room for more Research in Environment & Green Technologies.

**The First Meeting** of this board was held on **22nd December 2010**, with the objective of establishing the board, thirty three experts were present in this meeting. In the meeting, it was decided to work in four main areas:

(A) Recycling and Reuse Of Water

(B) Urban Air Quality

(C) Renewable Energy

(D) Cleaner Production Systems

**Core & Organizing Committees****Core Committee**

Dr.N.S.Varandani	HOD of LDCL (env. Dept)
C.G.Pandaya	Hon Director of board
Samir Chokshi	Director chokshi Enterprise
Hardik Shah	Secretary General of GCPC
I.N.Trivedi	Co-Ordinator
Priyanka Trivedi	Co-Ordinator



**Renewable Energy & Efficiency**

Sanjay Patel	Consultant
S.B.Sharma	IITE
S.B.Patil	GEDA/I/C Deputy Director
Himali Desai	SPRERI

**Recycle & Reuse of Water**

Dr.Deepak Katawala	Consultant
Dr.K.N.Sheth	Sarswati Institute. Of Engineering
Rupesh Vasani	SAL College of Engineering
Vimal Chokhavatiya	Consultant

**Urban Air Quality**

H.V.Bhavana	PIET, Waghodia, Vadodara
Dr.Akshai Bhargav	Principal; KITRC Kadi
Dr. G.K.Trivedi	GPCP

**Cleaner Production System**

Vipul Shah	CEPT
Bharat Jain	GCPC
R.N.Shukala	L.D
J.K.Vyash	Environment & Department of Forest

Wg Cdr C.G.Pandya was appointed as the Hon Director of the Board.

The first workshop of the Board was on Net Zero Energy / Eco footprint by Professor Farrokh Mistree, Chair and Director, School of Aerospace and Mechanical Engineering, University of Oklahoma, USA. Dr Mistree also described the work in environment and climatology at his University.

- (a) The first seminar was organized on Trends in **Renewable Energy Technologies** on 30th April 2011, where Mr. Vagmin Buch , Director of GEDA was invited as a chief Guest. 150 candidates had participated in the seminar. Industry and academic experts had delivered their sessions on following subjects.

**Topic:**

- Overview of Renewable energy
  - Development of P.V. Solar Technology
  - Solar PV supplier Technology
  - Solar PV building
  - Solar PV business scenario Globally & Locally
  - Solar Thermal
  - Solar thermal market in India
  - Small wind development
  - Wtg suppliers Presentation
  - Overview Ocean Energy
  - Overview Biomass
  - Overview biogas
- (b) The second seminar was organized on Smart Grid Technology on 1st October 2011, where Mr. P.H.Rana, Technical Director, GUVCL was invited as a chief Guest. 180 candidates had participated in the seminar. Industry and academic experts had delivered their lectures on the following topics.
- over view of Smart Grid
  - History of Smart Grid
  - Standards of Smart Grid
  - Project finance in Smart Grid Implementation
  - Wide Area Measurement Systems - Infrastructure for future Smart Grid
  - Advancement & Development of Smart Grid
  - Smart Metering
  - Smart Charging for PHEV using Smart Grid
  - Demonstration of project
- The upcoming seminars are
    - (A) Ocean energy Technology**
    - (B) Urban Air quality**

## **(B) Board for Mobile Computing and Wireless Technologies**

Gujarat Technological University has always supported the latest trends in industry and tried to implement those in benefit of the students. To take this a step forward Hon'ble Vice Chancellor Dr. Akshai Aggarwal has set up a state level board for Mobile Computing and Wireless Technologies.

Over the last few years, there has been a substantial increase of research & development and adoption in wireless and mobile technologies and considerable amount of contributions to this domain from India to various avenues like research, coding, localization, marketing, app store submissions, infrastructure, maintenance, job opportunities etc have been observed.

We need a forum to gather as many wireless and mobile technology experts and developers as possible at one place under Gujarat Technological University. So GTU has planned to come together to organize a board solely dedicated to Wireless and Mobile Technologies with an aim to spread these technologies far and wide within India and abroad. As curriculum has been the foundation of these technologies since the very beginning, we have the same aspirations for further development. We also wish to promote various wireless technologies with its development platforms like a raised area that is capable of delivering excellence.

Here are a few things we had in mind for the primary focused area:

- Organizing talks and workshops by seasoned wireless and mobile applications technology experts.
- Organizing day long tutorials by wireless and mobile application technology experts.
- Brainstorming new ideas that could be possible with wireless and mobile application technologies.
- Meet new people and share the passion of making awesome mobile applications and being a part of a rich community by pushing our students at international avenues.
- Development of web based learning materials in association with UNESCO
- Leveraging open source hardware and software in this area.

Initially we focused on following technologies/area to start with:

- Mobile Applications development using C++, Python, Qt/QML, WRT, Java ME etc.
- Mobile Applications development on Android, Meego, Symbian, Bada, RIM, iOS and Windows platform.
- Submission of applications which can be marketable to world famous virtual stores like Ovi store, App World, App Store, Flypp etc.
- Embedded wireless system design and development.
- GSM and 3G network planning and optimization.
- Wireless network security issues.

- Wireless technologies in forensic science.
- Use of mobile and wireless technologies in rural areas, healthcare, governance and education.
- Protecting intellectual properties right management on these technologies for GTU students and faculties.
- Wireless sensor networks, WASP etc.
- Location based services using Global Positioning System.

The first meeting of the board met on 19/03/2011 at GTU Conference Hall.

***Under GTU Board for Mobile Computing and Wireless Technologies till now following workshops were conducted:***

Sr No.	Title	Venue	Date	No. of Partici pates	Speakers
1	A Short Term Training Program on Mobile Application Development (Sponsored by GTU)	VGEC, Chandkheda	20th-24th July 2011	175	<ol style="list-style-type: none"> <li>1. Mr. Balagopal KS (Forum Nokia Technology Expert,Banglore).</li> <li>2. Mr. Nitin Srivastava (Forum Nokia Technology Expert,Banglore).</li> <li>3. Mr. Bharat D Sharma (Director, Fortune Infocom Ltd,Mumbai)</li> <li>4. Mr.Gargi Das (Software Engineer, Infostretch Solutions, Ahmedabad)</li> <li>5. Prof. Kiran Trivedi (Associate Professor, S. S. Engineering College, Bhavnagar).</li> <li>6. Prof. Mehul Jajal (Assistant Professor, S. S. Engineering College, Bhavnagar)</li> <li>7. Mr. Chintan Umraliya (Lecturer, Dr. J. N. Mehta Government Polytechnic, Amreli)</li> </ol>

Sr No.	Title	Venue	Date	No. of Partici pates	Speakers
2	Workshop on Android Application Development (Sponsored by GTU)	L D College of Engineering, Ahmedabad	30th July 2011 & 6th August 2011	85	1. Mrs. Hiteishi Diwanji (LDCE,Ahmedabad) 2. Prof. B.V.Buddhadev (LDCE,Ahmedabad) 3. Mr. Chirag Thaker (LDCE,Ahmedabad)
3	Workshop on Android Application Development (Not Sponsored by GTU)	R.K. College of Engineering & Technology, Rajkot,	22nd-23rd July 2011	120	1. Mr. Gargi Das (Champion - Forum Nokia, Tech Lead-Infostretch Solutions) 2. Mr. Rajnikant Joshi (Android Tech Lead at InfoStretch Solutions Pvt. Ltd.)
4	FDP on Android (Not Sponsored by GTU)	LDRP-ITR, Gandhinagar	30th- 31th July 2011	41	From Industry (Gateway Technolabs, Ahmedabad) 1. Mr. Vikas Jain (Project Manager), 2. Mr. Anjum (Sr. Developer), 3. Mr. Devang Tank (Sr. Developer )
5	A Short Term Training Program on Imminent Mobile Computing in association with Infostretch Corporation & CSI (Not Sponsored by GTU)	B H Gardi College of Engineering and Technology, Rajkot	21st-25th Dec 2011	39	1. Prof. Vijay Ukani (Nirma University) 2. Prof. H. M. Nimbark (BGCET,Rajkot) 3. Prof. K. R. Trivedi (Govt. Engineering College, Bhavnagar) 4. Prof. M. A. Jajal (Govt. Engineering College, Bhavnagar) 5. Dr. Mukesh Zaveri (SVNIT, Surat) 6. Mr. Rupak Parikh (InfoStretch,Ahmedabad) 7. Mr. Javal Nanda (InfoStretch,Ahmedabad) 8. Prof. B. V. Buddhadev (LDCE,Ahmedabad) 9. Prof.Mrudang Maheta (DDIT, Nadiad)

Sr No.	Title	Venue	Date	No. of Participates	Speakers
6	One Day Seminar On Mobile Communication & Computing	C. U. Shah College of Master of Computer Application, Wadhwan (Surendranagar)	27th April 2011	70	1. Dr. K. H. Wandra (C U Shah-MCA,Wadhwan) 2. Dr. H. B. Bhadka (C U Shah-MCA,Wadhwan)
7	Seminar On Mobile Application Development and Basics	Chaudhari Technical Institute, Gandhinagar	23rd April 2011	~40	Prof.Vinod Pillai (CTI-Gandhinagar)

- On 14th April 2011, Mr.Dilip Modi-CMD of Spice Mobile had visited GTU. Prof. Mehul Jajal from SSEC,Bhavnagar gave a presentation on behalf of GTU Board for Mobile computing and Wireless Technologies. Due to the excellent presentation by the GTU Board of Mobile Computing and Wireless Technologies, Mr Dilip Modi has agreed, in principle, to support a collaborative research program. He wants to bring at least 3,000 of our students into the Application Development programs on various platforms.

#### **Future Planning:**

We expect experts, faculty and students to come and join this in huge number and benefit from these revolutionary technologies and take back with them a lot of knowledge and the thrill to be a part and contribute to one of the widely used technology in the world.

We also expect and encourage faculty, students, research scholars and professionals working with such technologies to take part in this group and share their knowledge and experience with the Community.

*Prepared by: Prof. Almas Juneja, Toral Vandara and Priyanka Trivedi*

**APPENDIX 10****Report of IT Initiatives at GTU:**

Sr. No	Project/Initiative	Present Status
01	Exam paper delivery system (GTU has initiated encrypted examination papers on compact disk first time in the state and used mobile SMS technique to decrypt examination papers across the state)	Implemented and working till date
02	Automation of pre exam activities (Exam form generation and receipt, Hall ticket generation, student exam barcode and other reports)	Implemented and working till date
03	IT based bar-coded automated systems for post exam management (examiners orders, distribution/receipt of answer book to/from examiner, mapping of student barcode and result processing )	Implemented and working till date
04	On-line result declaration with dynamic result analysis (more then 4 lakh students, 78 courses of approx 500 colleges with consolidated history of all semester records.)	Implemented and working till date
05	On-line entrance tests for MBA/MCA candidates	Implemented
06	Allocation of XXX@gtu.edu.in addresses to the entire GTU community (Already allocated to 1 million students and teachers; Before the beginning of the next semester, the addresses will be allocated to all the 4 lakh students.)	Implemented
07	Collaboration and Learning Environment for PG Courses Gujarat Technological University (GTU has as many as 40 PG level courses in various disciplines such as Master of Engineering (ME), Master of Pharmacy (MPHARM), Master in Computer Application (MCA), and Master in business management (MBA). GTU has launched a cluster of more than 2500 courses websites)	Implemented
08	GTU Wikis (GTU Wikis ("using collective intelligence for improving Learning Outcomes"). GTU Wikis are intended to serve teachers of GTU consortium colleges (PPP colleges)	Implemented
09	Self-study Facility for Good Students (GTU has provided at a few Colleges, rooms with 12-15 computers connected to a central server, on which the entire video course-set of IIT Mumbai has been mounted.)	Software developed still to be implemented at institute
10	GTU Discussion Boards ("Exchanging Tips and Discussing Topics") (GTU Discussion Boards enable teachers, senior faculties and principals of GTU affiliated colleges to interact with each other.)	Implemented

Sr. No	Project/Initiative	Present Status
11	GTU Campus Connect (For Continuous Feedback from Students and a help-site ("For the, Of the & By the Students"))	Implemented
12	GTU WEB-MAIL (GTU issues no hard-copy circulars to its 495 Colleges. These are only issued electronically on its web-site.)	Implemented
13	Use of IT in teaching - learning: (Using WebEx for remote teaching of VLSI Design and Embedded Computing courses through experts from all over the world. We are exploring the possibility of using A-View for connecting an excellent teacher at one College to multiple Colleges. We have also made a request to BISAG for two full-time TV channels for educational purposes	To be implemented shortly
14	E-exam form filling and Enrolment	Will be implemented form next semester
15	On-line teacher data collection and display	Implemented
16	On-Line Daily attendance system	Implemented
17	Electronics form filling for convocation as well as recruitment	Implemented
18	On-Line verification system for degree/diploma certificates as well as history	Implemented
19	On-Line uploading of students projects/other projects and display of abstracts	Developed and system to be implemented shortly
20	Use of IT in competitive examinations (Already implemented in ITI exam for about 25000 students)	Implemented
21	Campus wide network (Implementation of Campus wide LAN at GTU new location)	Planning Done to be implemented at new site
22	Video - Phone Network connection ( Planning to use broad-band line of BSNL to have video conference as well as lecture broadcast)	Demo of resolution done. Waiting for Lecture broadcast demo)



Sr. No	Project/Initiative	Present Status
23	CCTV Network (Implementation of CCTV network at new GTU campus)	
24	GTU web-site to be shifted on GTU Cloud (Template Creation for GTU new site is done with admin control)	
25	KIOSK Project (Application for KIOSK, Installation on kiosk at GTU).	Implemented
26	On-line Video display from Subjects without any database interface. (shortly database interface will be there and search will be provided)	Implemented
27	Video display from YouTube server via google API (Upload video files on YouTube and link to our project with latest jQuery video lightbox.)	Implemented
28	On-Line Internal marks entry System	Implemented
29	E-Assessment (Implemented on trial basis in ME course)	S/W refinement process in progress

Prepared by: Prof. Ashesh Desai

**APPENDIX 11****Report on Affiliation of Educational Institutions:**

GTU started functioning with Degree/Diploma Engineering and Pharmacy in the year 2008-09(No.GH/SH/23/2008/GTU/102008/960/S dated: 08/07/2008).

In the year 2009-10(No.GH/SH/10/2009/GTU/102008/960/S dated: 26/05/2009), the government transferred the affiliation of Post-graduate programmes in Engineering, Pharmacy, Management and computer application to GTU.

In the year 2011-12, the university has started Ph.D. programme in the fields of Engineering, Pharmacy, Management and computer science.

Year	DE	DP	BE	BP	ME	M.Pharm	MBA	MCA
<b>2008-09</b>	55	18	49	67	-	-	-	-
<b>2009-10</b>	73	19	82	84	08	12	85	40
<b>2010-11</b>	83	19	92	86	21	36	114	51
<b>2011-12</b>	90	21	100	88	39	46	119	56

Total Number of Programs in 2011-12=559

Diploma courses	:	30
BE courses	:	34
ME (special)	:	10 (48)
M.Pharm (special)	:	14
MBA (special)	:	09

*Prepared by: Prof Ujjaval Y. Nanavati*

**APPENDIX 12****Staff Endorsement Work:**

This newly full-fledged branch was started in September, 2011. As for the staff in this branch one Officer on Special Duty and three Administrative Assistants are working in this branch.

The main function of this branch is to endorse the staff selected by the affiliated Colleges/Institutions for the process of appointment of the staff. The institution concerned is required to publish two advertisements: One in a Gujarati language newspaper and the other in an English language newspaper. The Selection Committee consists of two experts, Two Management Representative & One Nominee of V. C. The selection committee is supposed to select candidates. The candidates selected by the Selection Committee are considered for endorsement by the university according to the rules.

The selectees for the following posts are considered for university endorsement:

Principal, Director, Professor, Associate Professor, Asst. Professor, Lecturer to be appointed by the Institutions of Pharmacy, Engineering, Management and Computer Science to teach at the Diploma, Degree and the P.G. level such as MBA, MCA, ME, M. Pham etc.

As per the AICTE requirements the Staff Endorsement Branch sent a circular to the Institutions concerned for the filling up of the vacant Principal/Director & Faculty positions through a Circular so that the learning systems might not suffer due to lack of faculty members.

To speed up the process of appointment, when an Institution decides to conduct Open Interviews, this Branch provides with the names of V. C. nominees very promptly.

All the files for faculty positions in Diploma and Degree Courses in Engineering, Management and Computer Applications branches have been cleared. The relevant files for Pharmacy are in the process of clearance.

After the speedy completion of the endorsement of all new selectees, the cases of the old faculty approved by the previous university concerned in the different Institutions will be taken up for the confirmation by this University.

Procedures are yet to be laid down in regard to the resignation by the staff endorsed by this University and working in the different affiliated Institutions. It is planned to do so before the new academic year.

Prepared by: Ramsinh H. Rajput, Officer on Special Duty

**APPENDIX 13****Evaluation System of the University:**

GTU started its functioning in ACPC building, L D Engineering college campus from 8th July 2008 with affiliation of 50 degree engineering colleges, 69 degree pharmacy colleges, 59 diploma engineering colleges and 17 diploma Pharmacy College. Approximately around 52000 students were enrolled as the first batch of the university. The post graduate courses -M.E, M.Pharm, MCA and MBA were affiliated in the year 2009. At present there are about 4.0lac students studying at more than 500 GTU affiliated institutes (B.E:100; D.E:90; B.Pharm: 88; D.P: 16; M.E: 40; M.Pharm: 46; MBA: 119; MCA: 56; PDDC: 03).

To eliminate the leakage of question papers and also to avoid mass copying at the examination centers, GTU introduced innovating strategies in better managing examinations by the way of Electronic Distribution of Examination Papers System of Examination in the very first university examination which was held in December 2008. Conventional paper printing was replaced by the encrypted CD's by the GTU. GTU is the only university in Gujarat having an e-system of conducting examination and this system has proven to be the most reliable and confidential system. This has been admired by various institutes and organisations. For smooth conduction of university semester end examination across the state, the whole state is divided in to five zones: Ahmedabad, Gandhinagar, V.V. Nagar, Rajkot and Surat. At each of the zones a faculty from GTU affiliated institute is appointed as a zonal officer along with administrative assistant and office assistant. At present Ahmedabad-Gandhinagar is in operation at RCTI Campus, Opp. High court-Ahmedabad, V.V. Nagar zone operates from B&B Polytechnic-Vallabh Vidyanagar, Rajkot zone operates from A. V. Parekh Technical Institute-Rajkot and Surat zone operates from Governments Girls Polytechnic-Surat. On the day of GTU examination at a particular exam centre, exams are conducted under supervision of GTU observer. An observer is a senior faculty from GTU affiliated institutes, who reaches exam centre at least 45 minutes before the start of a subject exam. For better communication among GTU affiliated institutes and university, Vodafone CUG number is allotted to each institute. All the GTU affiliated institutes are given in house training by GTU official for Decryption of question paper CD. Also a mock round is arranged before the start of exam so as to have a feel of university exam system. For decryption of exam CD, a JAVA software is used and it needs three passwords-institute password, university password and day password s for encryption. A day password is sent through SMS to each exam centres on its GTU registered mobile by controller of examination.

- During any university subject exam, a student is given a subject barcode which is to be pasted by the student himself.
- At the end of the subject exam, the student is required to hide all his identity ie. seat no., enrolment no., supervisors name & signature as well as institute name by pasting hollow black stickers..
- After completion of day exam, answer books are packed under the supervision of GTU observer. He hands over answer book packets to concerned zonal centres.
- At the zonal office, all answer books of a particular subject received from different exam centre code are mixed thoroughly and then packed in lots of 100.
- On the next day, all answer books packets from the zonal offices are returned to the university.
- University mixes all packets of answer book received from various zones

- After mixing packets it is distributed to various teachers of affiliated colleges for assessment.
- Examiners are given coded answer books along with UID.
- During result preparation the marks are entered from answer books.
- Continuing Evaluation Process marks are entered online and stored in GTU server. These marks are visible to all the students once it is entered and saved successfully on GTU online marks entry portal.

GTU declare the results in one month for degree programs after last subject exam and nearly five weeks for diploma engineering programs. To facilitates students grievances, the rechecking application is invited from the all the students up to pre-final year of UG and diploma programs and reassessment only in final year semester. In case of PG programs reassessment is done for all semester students. After rechecking and reassessment process is over the students grade cards are printed and delivered to all the institutes. Finally, the summery of student's history in form of college record is given to all the institutes.

### ***System of Evaluation and award of Degree***

On the basis of his/her performance in examinations, assignments, and practical exam students is awarded a grade. These grades are awarded based upon the notification of AICTE. The performance of the students in a semester is indicated by a number called the Semester Performance Index (SPI). The SPI is the weighted average of the grade points obtained in all the subjects taken by the students during the semester. An up-to-date assessment from the time the student entered the course is obtained by the calculating Cumulative Performance Index (CPI). The CPI is the weighted average of the grade points obtained in all the subjects taken by the students since he/she entered the course.

For continuation of study maximum 4 backlogs are permitted excluding backlogs of immediate previous semester.

*Prepared by: Dr. G.P. Vadodaria*

**APPENDIX 14****Report of Extra-Curricular Activities:****1. Youth Festival**

University had organized & finished its first Youth Festival "XITIJ 2011" in the month of October 2011. Total 21 events in five main categories are included in the first Youth Festival as mentioned in the table.

Sr No	Category	Name of Event
1	Music	Classical Vocal Solo (Hindustani or Karnataki)
		Classical Instrumental Solo (Percussion)
		Classical Instrumental Solo (Non-Percussion)
		Light Vocal (Indian)
		Western Vocal (Solo)
		Group Song (Indian)
		Group Song (Western)
2	Dance	Folk/Tribal Dance
		Classical Dance (Indian)
3	Literature	Quiz
		Elocution
		Debate
4	Theatre	Skits
		Mime
		Mimicry
5	Fine Arts	On the Spot Painting
		Collage
		Poster Making
		Rangoli
		Clay Modeling
		Cartooning

Youth Festival is organized at zonal level in the first stage i.e. Ahmedabad, Gandhinagar, Surat, VV Nagar & Rajkot zone. Total 180 colleges & approximately 6000 students participated in the first Youth Festival.

Sr. No.	Level	Name of Host Institute	No. of Participating College	No. of Participants	Date
1	Ahmedabad	L.J. Institute of Pharmacy, Ahmedabad	20	700	14th - 15th October 2011
2	Gandhinagar	Sarswati Institute of engineering & Management, Rajpur	20	1000	13th - 14th October 2011
3	V. V.Nagar	Parul Institute Of Engineering & Technology, Limda	70	1200	14th - 15th October 2011
4	Rajkot	Marwadi Group of Institutes, Rajkot	15	1000	14th - 15th October 2011
5	Surat	Sarvajanik College of Engineering & Technology, Surat	15	950	14th - 15th October 2011
6	Inter Zonal	L.J. Institute of Pharmacy, Ahmedabad	40	900	19th - 20th October 2011

The top three winners in each event participated in Inter Zonal Youth Festival at LJIP, Ahmedabad.

Each winner was awarded with certificate of merit & trophies. Each participant got certificate of participation.

The University participated in AIU West Zone Youth Festival at M L Sukhadia University at Udaipur. GTU has participated in maximum events in the first year of its participation. GTU stood third in debate & Quiz competition. Among all Universities in Gujarat, GTU has performed very well in the first year of its participation.

## **2. Blood Donation & Thalassemia Awareness & Testing Program:**

Gujarat Technological University, Ahmedabad was awarded for outstanding work in the area of blood donation in a state level function organized by Indian Red Cross Society. Dr G P Vadodaria, Registrar, Gujarat Technological University & Capt C S Sanghvi, Officer in-charge of Social activities, GTU received award from HE Dr Kamalaji , Governor of Gujarat, Honorable Chief Minister Shri Narendra Modi & Honorable Health Minister Shri Jay Narayan Vyas on behalf of Gujarat Technological University.

Indian Red Cross Society, Gujarat State appreciated the effort of Gujarat Technological University in the area of Thalassemia Awareness & Testing Program. GTU received two Awards from Her Excellency Dr Kamalaji, Governor of Gujarat & Smt. Maduben Nayakk, President, IRCS, Gujarat state in the year 2011 & 2010 respectively.

**Report of Blood Donation:**

Institutes	Units of Blood Donated	Number of Institutes participated in blood donation
B.E.	4619	30/92
D.E.	750	12/85
B.Pharm.	532	15/87
D.Pharm.	25	01/19
MBA + MCA	496	08/(116+52=168)
Total	6422	66

**Report of Thalassemia Awareness Program:**

Institutes	Total Students Tested	Number of Institutes participated
B.E.	13443	27/92
D.E.	6899	15/85
B.Pharm.	1526	21/87
D.Pharm.	23	01/19
MBA + MCA	1297	13/(116+52=168)
Total as per details received from various institutes	23188	77
Total as per IRCS	28375	
Other than IRCS	3368	
Total as per record of IRCS & other institute	31743	

**3. Sports**

Total 13 sports events are included in the 2nd Sports Festival "SPIRIT 2011" as mentioned in the table. Sports Festival is organized at zonal level in the first stage i.e. Ahmedabad, Gandhinagar, Surat, VV Nagar & Rajkot zone. Approximately 7500 students participated in these events.

Top three winners in each event participated in Inter Zonal Sports Festival at various places.

GTU has sent its team to participate in AIU West Zone Sports Meet at various universities. Performance of the football team was good & enters into quarter finals.



Sr.No	Event	Name of host institute	No. of Participants
1	Swimming incl. Water Polo	AITS, Rajkot	80
2	Cross Country	Silver Oak College of Engineering & Tech, A'bad	40
3	Football	SCET, Surat	1000
4	Kabbadi	LCIT, Bhandu	500
5	Cricket	GTU	2560
6	Tennis	LDRP, Gandhinagar	150
7	Basketball	ADIT, V V Nagar	400
8	Table Tennis	SVIT, Vasad	300
9	Chess	LDCE, Ahmedabad	500
10	Hockey	LDRP, Gandhinagar	100
11	Badminton	GCET, V.V.Nagar	300
12	Volleyball	LJIP, Ahmedabad	1000
13	Athletics	SPCE, Visnagar	500

Indian Red Cross Society, Gujarat State appreciated the effort of Gujarat Technological University in the area of Thalassemia Awareness & Testing Program. GTU received two Awards from Her Excellency Dr Kamalaji, Governor of Gujarat & Smt. Maduben Nayakk, President, IRCS, Gujarat state in the year 2011 & 2010 respectively.



**4. National Service Scheme:**

2000 seats have been allotted in the month of December 2011 and the process of distribution of seats to various institutes is in progress.

**5. National Cadet Corps:**

Three technical units are working with GTU having total intake of 600 cadets. Efforts are being made to convert these units into a Battalion to increase the intake by 3000.

*Prepared by: Captain Dr Chaitanya Sanghvi*

**APPENDIX 15****Report on Awards:****1. Digital Learning WES - 2011 Award**

GTU won the best jury Award in the category of Best Interface between Academia - Industry at the World Education Summit 2011, New Delhi for its project GTU Innovation Council. The event was organized by IGNOU in association with the Centre for Science Development and Media Studies (CSDMS) and Elets Technomedia. The Co-organizers were AICTE, Department of Information Technology, Ministry of Communication & IT, Government of India, National e-Governance Plan and others.

**2. GESIA Award - 2011**

A Special Recognition Award (Educational Institute) was given to Gujarat Technological University by Gujarat Electronics and Software Industries Association.

**3. Shredil Gujarat Award -2011**

Gujarat Technological University, Ahmedabad was awarded for outstanding work in the area of blood donation in a state level function organized by Indian Red Cross Society. GTU received the award from HE Dr Kamalaji , Governor of Gujarat, Honorable Chief Minister Shri Narendra Modi & Honorable Health Minister Shri Jay Narayan Vyas.

**4. Thalassemia Awareness & Testing Program Award -2011**

Gujarat Technological University, Ahmedabad was awarded for outstanding work in the area of Thalassemia Awareness & Testing in a state level function organized by Indian Red Cross Society. GTU received the award at the hands of Her Excellency Dr Kamalaji, Governor of Gujarat.

**5. Thalassemia Awareness & Testing Program Award -2010**

Gujarat Technological University, Ahmedabad was awarded for outstanding work in the area of Thalassemia Awareness & Testing in a state level function organized by Indian Red Cross Society. GTU received the award at the hands of Smt. Maduben Nayak, President, IRCS, Gujarat state.

**6. ICT Enabled University Award E-India 2009**

Gujarat Technological University has been awarded the Information Communication Technology (ICT) Enabled University of the year award by the Jury in the E - India 2009 award ceremony held at Hyderabad International Convention Centre, Hyderabad on 26th August, 2009. The event was organized by Centre for Science, Development and Media Studies CSDMS and Co organized by Ministry of Communication and IT, Government of India as well as National E governance plan. The event was sponsored by companies like IBM, SIEMENS, Microsoft, Infosys Etc. Awards were given in the several Categories like e-Agriculture, e- Gov, Digital Learning, e- Health etc. Gujarat Technological University has been awarded as ICT enabled University in the Digital Learning Category. The ICT enabled University of the year seeks to acknowledge and highlight the achievements of the institute in bringing new and innovative endeavours for the benefit of the Higher Education community.

Gujarat Technological University has been awarded this for its project - Gujarat Common Entrance Exam (GCET -2009). This was the first time in India that any State level (Government) Entrance Exam was conducted online for about 23,000 students at 21 centres in 11 cities of Gujarat. The entire project used cutting -edge technology and offered innovative solutions to address online application, Online Exam delivery and instantaneous declaration of printed score card and Online counselling for admission. It is noteworthy that the University started functioning only from August, 2008 and in its first year itself, the University has bagged the prestigious award.

#### **7. Manthan Award South Asia - 2009**

This award is for the innovation and ICT content in its application of the Common Entrance Test, GCET 2009. This is the entrance test is conducted by Gujarat Technological University (GTU) for admissions to Masters of Business Administration (MBA) and Masters of Computer Application Gujarat (MCA) courses in all affiliated Institutions throughout Gujarat. This project serves the needs of the University in automating the examination delivery process and ensuring quicker turnaround time for creating content, publishing question papers, evaluating candidate responses, and announcing results. This project also provides a fully technology based solution for student counselling through online allocation of college seats.

**APPENDIX 16**

Gujarat Technological University  
Convocation - 2012  
Branch Wise Summary of Degree to be awarded

SN	Exam	Branch	Total
1	MBA	Finance	2074
2	MBA	Human Resource	518
3	MBA	Information System	5
4	MBA	Marketing	900
5	ME	Applied Instrumentation	10
6	ME	CAD/CAM	36
7	ME	CASAD	21
8	ME	Communication Engineering	18
9	ME	Communication Systems Engineering	20
10	ME	Computer Aided Process Design	12
11	ME	Computer Engineering	24
12	ME	Computer Science & Engineering	16
13	ME	Construction Engineering & Management	5
14	ME	Cryogenic Engg.	9
15	ME	Digital Communication	16
16	ME	Electrical Engineering	60
17	ME	Electronics and Communication Engineering	16
18	ME	Environmental Management	5
19	ME	I.C.Engine & Automobile	14
20	ME	Machine Design	11
21	ME	Structural Engineering	15
22	ME	Thermal Engineering	15
23	ME	Transportation Engineering	9
24	ME	Transportation System Engineering	3
25	ME	Water Resources Management	11
26	MPH	Clinical Pharmacy	38
27	MPH	Pharmaceutical Chemistry	46
28	MPH	Pharmaceutical Technology & Pharmaceutics	114
29	MPH	Pharmacognosy	49
30	MPH	Pharmacology	60
31	MPH	Quality Assurance	59
			<b>4209</b>

## Course-wise summary

1	MBA	3497
2	ME	346
3	MPH	366
		4209

*Prepared by: Dr. G.P.Vadodaria, Shri A A Desai and Shri S M Patel*

**APPENDIX 17****FIRST ANNUAL CONVOCATION****19th JANUARY, 2012****List of Medal winners and Donors.****Course Topper**

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
1	KOTAK HIRAL ASHWINBHAI	090440704001	MASTER OF ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
2	DAVE CHARMI KISHORBHAI	097360592004	MASTER OF BUSINESS ADMINISTRATION	SHRI JAIRAMBHAI PATEL INSTITUTE OF BUSINESS MANAGEMENT & COMPUTER APPLICATIONS
3	JANI RUSHIRAJ HARSHVADAN	092450802001	MASTER OF PHARMACY	GUJARAT TECHNOLOGICAL UNIVERSITY
4	PRAJAPATI VIJAY AMRUTBHAI	086440311053	DIPLOMA ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY

**Branch Wise ME Topper**

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
5	KOTAK HIRAL ASHWINBHAI	090440704001	M.E. ELECTRONICS AND COMMUNICATION ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
6	NAIK SRUJAN VIPINKUMAR	090110706008	M.E. COMMUNICATION ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
7	JOSHI CHETSI BHARGAV	090280715004	M.E. CIVIL (CASAD)	GUJARAT TECHNOLOGICAL UNIVERSITY
8	PATEL CHINTANKUMAR RASIKBHAI	090070707010	M.E. ELECTRICAL ENGINEERING	
9	PARMAR BHARAT DAHYABHAI	090280708007	M.E. MECHANICAL (CAD/CAM)	
10	JOSHI VAIBHAV BHARATBHAI	090370722003	M.E. DIGITAL COMMUNICATION	
11	TEREDESAI RADHA RAVINDRA	090070702011	M.E. COMPUTER ENGINEERING	
12	JAVAL MEHUL ANANTRAY	090280705023	M.E. COMMUNICATION SYSTEMS ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
13	CHETWANI DARSHNA PITAMBERLAL	090280716002	M.E. CHEMICAL ENGINEERING (COMPUTER AIDED PROCESS DESIGN)	GUJARAT TECHNOLOGICAL UNIVERSITY
14	PRAJAPATI SWATI VINODCHANDRA	090370721007	M.E. MECHANICAL (THERMAL ENGINEERING)	GUJARAT TECHNOLOGICAL UNIVERSITY
15	TUSHAR JAGDISHBHAI RAVAL	090280701017	M.E. COMPUTER SCIENCE & ENGINEERING	SAI INFOSYSTEM (INDIA) LTD.
16	SHAH MRUGESH DILIPKUMAR	090070720009	M.E. (CIVIL) STRUCTURAL ENGINEERING	PARUL GROUP OF INSTITUTE
17	AGRAWAL DHAWAL HARILAL	090280710001	M.E. MECHANICAL (CRYOGENIC ENGG.)	GUJARAT TECHNOLOGICAL UNIVERSITY
18	PATEL ALPESHKUMAR ISHWARBHAI	090280703005	M.E. INSTRUMENTATION AND CONTROL	GUJARAT TECHNOLOGICAL UNIVERSITY
19	SMT. MANISHA MINESH DESAI	090280713007	M.E. CIVIL (TRANSPORTATION ENGINEERING)	GUJARAT TECHNOLOGICAL UNIVERSITY
20	DAVE VISHWA SURESHBHAI	090430712009	M.E. CIVIL ( WATER RESOURCES MANAGEMENT)	GUJARAT TECHNOLOGICAL UNIVERSITY

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
21	JAIN ASHISH OMPRAKASH	090280711003	M.E. MECHANICAL (I.C.ENGINE & AUTOMOBILE)	
22	COLLERWALA TWINKLE NARENDRAKUMAR	090280711016	M.E. MECHANICAL (I.C.ENGINE & AUTOMOBILE)	
23	MODI KEVIN BABUBHAI	090070719002	M.E. TRANSPORTATION SYSTEM ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
24	DHIMMAR VISHALKUMAR ZAVERBHAI	090070709005	M.E. MECHANICAL (MACHINE DESIGN)	
25	ZALA MEGHALKUMAR INDRA SINH	090070714002	M.E. CONSTRUCTION ENGINEERING & MANAGEMENT	GUJARAT TECHNOLOGICAL UNIVERSITY
26	PATEL BINA BIRENKUMAR	090280718002	M.E. ENVIRONMENTAL MANAGEMENT	"LATE M.M.SHAH AWARD"

### Branch Wise MBA Topper

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
27	DAVE CHARMI KISHORBHAI	097360592004	Human Resource	PARUL GROUP OF INSTITUTE
28	ASHWINKUMAR RAMESHCHANDRA RAJAI	097440592036	Finance	SOM-LALIT GOLD MEDAL FOR FINANCE-MBA
29	SINGH SWETA ANANTSINGH	097700592084	Marketing	SOM-LALIT GOLD MEDAL FOR MARKETING-MBA
30	MANAN RAJEN CHOKSHI	097150592019	Information System	

### Branch Wise M. Pharm Topper

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
31	JANI RUSHIRAJ HARSHVADAN	092450802001	PHARMACEUTICAL TECH AND PHARMACEUTIC	"LATE DARSHINIBEN VIMALKUMAR AADATIYA"
32	PARIKH PALAKBEN KIRTIKUMAR	092450801005	PHARM. CHEMISTRY	GUJARAT TECHNOLOGICAL UNIVERSITY
33	DHAMAT ASHISHKUMAR DHANJIBHAI	092520805002	PHARMACOGNOSY	GUJARAT TECHNOLOGICAL UNIVERSITY
34	PATEL ANKITKUMAR DINESHBHAI	092450804001	QUAL. ASSURANCE	GUJARAT TECHNOLOGICAL UNIVERSITY
35	PATEL KINJALBEN CHIMANBHAI	092450804017	QUAL. ASSURANCE	GUJARAT TECHNOLOGICAL UNIVERSITY
36	PATEL BIPINCHANDRA MANUPRASAD	092640803004	PHARMACOLOGY	GUJARAT TECHNOLOGICAL UNIVERSITY
37	PATEL PURVABEN BHARATBHAI	092450806004	CLINICAL PHARMACY	GUJARAT TECHNOLOGICAL UNIVERSITY

### Branch Wise Diploma Engg. Topper

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
38	PRAJAPATI VIJAY AMRUTBHAI	086440311053	ELECTRONICS AND COMMUNICATION	GUJARAT TECHNOLOGICAL UNIVERSITY

### Branch Wise Diploma Engg. Topper

NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
39	SANEPARA NILESHKUMAR MADHUBHAI	086560319103	MECHANICAL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
40	KARIA KOMAL HITESH BHAI	086020351009	COMPUTER AIDED COSTUME DESIGN & DRESS MAKING	GUJARAT TECHNOLOGICAL UNIVERSITY
41	ZAVERI ARCHITA NALINKANT	086030307119	COMPUTER ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY



NO.	STUDENT NAME	ENROLLMENT NO.	COURSE NAME	MEDAL IN NAME OF
42	GUNDALIA DINESH VITHALBHAI	086190309023	ELECTRICAL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
43	PATIL POONAMBEN AJABRAO	086150353203	COMMERCIAL ART	GUJARAT TECHNOLOGICAL UNIVERSITY
44	VASANI VIKAS CHANDULAL	086170316060	INFORMATION TECHNOLOGY	GUJARAT TECHNOLOGICAL UNIVERSITY
45	TEJANI VAIBHAV GANESHBHAI	086470306112	CIVIL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
46	UPADHYAY DISHANK SURESHKUMAR	086440320059	MECHATRONICS ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
47	PATEL KHUSHBU ALKESHKUMAR	086560350019	ARCHITECTURAL ASSISTANTSHIP	GUJARAT TECHNOLOGICAL UNIVERSITY
48	GOHIL PINTUBHA GHANSHYAMSINH	086370305014	CHEMICAL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
49	SIDAVADKAR BHAGYASHREE SURESH	086150359055	TEXTILE DESIGNING	GUJARAT TECHNOLOGICAL UNIVERSITY
50	KABARIYA URVESH RAMJIBHAI	086170302024	AUTOMOBILE ENGINEERING	LAVANYA GOPALBHAI POPATBHAI BHUVA
51	DUBEY BHIMLESH UMAKANT ENGINEERING	086120324008	POWER ELECTRONICS	GUJARAT TECHNOLOGICAL UNIVERSITY
52	ZANKAT GAUTAMKUMAR ARJANBHAI	086100317059	INSTRUMENTATION & CONTROL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
53	KATHAROTIYA NILESH KARSHANBHAI	086270360023	TRANSPORTATION ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
54	BHATT NISARG JAYENDRA	086340352005	CERAMIC TECHNOLOGY	GUJARAT TECHNOLOGICAL UNIVERSITY
55	PATEL PAYAL MAHENDRABHAI	086490356006	HOME SCIENCE	GUJARAT TECHNOLOGICAL UNIVERSITY
56	PATEL DARSHANKUMAR ANILKUMAR	086400358029	PRINTING TECHNOLOGY	V.S.PANDYA-SAHITYA MUDRANALAYA
57	MAHETA RAKSHIT CHANDRASHEKHAR	086210322515	MINING ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
58	KARELIA MUDRA KETAN	086150354017	COMMERCIAL PRACTIC	GUJARAT TECHNOLOGICAL UNIVERSITY
59	PAREKH POONAM RAMESHBHAI	086230303034	BIOMEDICAL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY
60	PATEL SHIRIN IBRAHIM	086450313037	ENVIRONMENTAL ENGINEERING	GUJARAT TECHNOLOGICAL UNIVERSITY

*Prepared by: Dr. G.P.Vadodaria, Shri A A Desai, Shri S M Patel and Shri H C Trivedi*

Courtesy



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