



Gujarat Technological University
(International Innovative University)

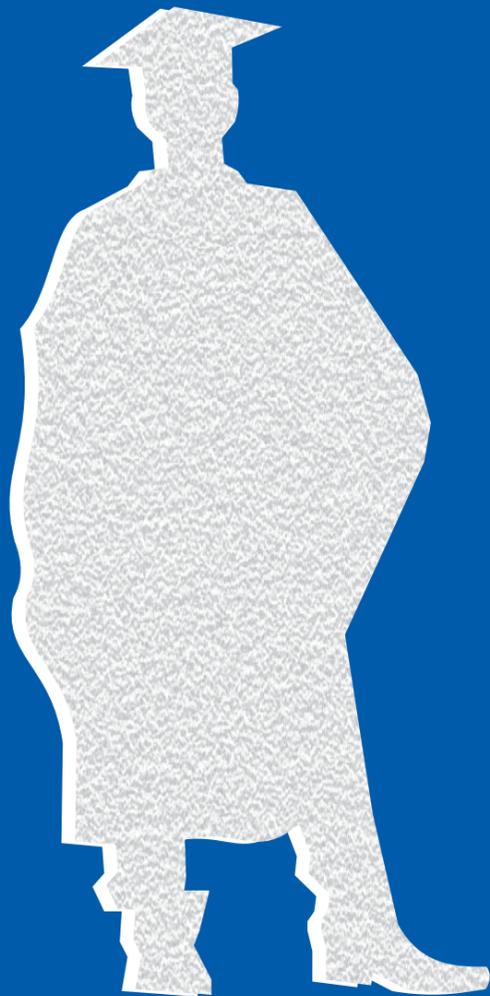


2nd



Annual Convocation

Saturday, 19th January 2013



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GUJARAT TECHNOLOGICAL UNIVERSITY
Sabarmati Koba Highway, Nr. Visat Three Roads,
(Campus of Vishwakarma Govt. Engg. College &
IIT, Gandhinagar), Chandkheda,
Ahmedabad - 382 424, Gujarat, India.
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University Report

Venue :
Sabarmati - Koba Highway, Nr. Visat Three Roads,
(Campus of Vishwakarma Government Engg. College &
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Gujarat Technological University

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The Report

Her Excellency, Dr. Kamlaji, the Governor of Gujarat and Chancellor, Gujarat Technological University, **Shri Bhupendrabhai Chudasma, Hon'ble Minister for Education** and today's Chief Guest, Shri Jay Narayan Vyas, a respected professional, who also happens to be a respected political leader and today's Guest of Honour, two highly talented Indians, HH Sri Sri Ravishankarji and Padma Bhushan Shri A. M. Naik in whose achievements we can all take pride, Members of the Board of Governors, Academic Council and the Finance Committee, 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 Second Convocation of the University.

At our first convocation, last year, the degrees were awarded to those, who had completed all the requirements for the M.B.A., M. Pharm and M.E. degrees only. At this convocation, GTU will be awarding Bachelors and Masters degrees in Engineering, Pharmacy, Business Studies and Computer Science. GTU will also be conferring honorary Doctorates on HH Sri Sri Ravishankarji and Padma Bhushan Shri A. M. Naik.

A Convocation is an occasion to celebrate the achievements of our graduates. It also marks the end of a page and the beginning of a new page both for the University as well as in the lives of our new graduates. Hence this is the right occasion to present an account of the University's work during the last year.

GTU has been continuously working to modernize and improve the academic content in its programs. GTU has explored and implemented innovative programs to build capabilities so that its graduates will be able to add value to the working of any organization, they may choose to join or any organization, they may choose to set up as an entrepreneur. This Report delineates, in brief, the successes during the previous year. Even as the Report was being prepared, GTU bagged AIMS International's Innovative University Award. The award was given at IIM Bangalore in the presence of many Directors of IIMs and other distinguished persons on January 7, 2013.

ACADEMIC PROGRAMS:

The raison d'être for any University are its students and its learning systems.

GTU has defined clearly the protocol for its academic programs. Industries and businesses, its own faculty and prominent faculty members from all over the country are consulted for determining the contours of a new syllabus. After the draft is ready, full-day conferences, open to all the stake-holders are held to validate the syllabi. For every new course, extensive Faculty Development Programs are organized in all the five zones. After the new syllabus has been delivered once, a formal feedback enquiry system is put in place to find out how well the new syllabus is being delivered. The new Global MBA syllabus was implemented in August 2011. GTU is working to develop a system for evaluating its delivery.

A new course, called Contributor Personality Development (CPD) is being offered since January 2012 and more than 100,000 students have gone through the course from January 2012 to December 2012. **This is, by far, the largest offering of a course, designed to inculcate values at University level.** For this new type of course, more than 700 faculty members have

been trained under the Vivekanand CPD Faculty Development Program. During the second half of the second semester of the academic year 2011-12, a review of the delivery of the program was done. The faculty members were being re-trained during the first semester of the academic year 2012-13, under the Vivekanand Program. This FDP was supported by **Adani Foundation**.

Special care was given to the Colleges, which had not fared well in the first Review. Additional help was made available to the faculty members in Colleges, where delivery of the course was not found to be excellent. 29 of these colleges were audited again as part of the special monitoring exercise conducted in the second round of the audit during the first semester of the academic year 2012-13. It was found that out of these 29 colleges, 18 were able to significantly improve the delivery of the program. The main drivers for excellence was the determination of the Principal/ Director to strive for excellence in his/ her College/ Institution. Besides the internal assessment, GTU has signed an MoU with Indian Institute of Teachers Education, Gandhinagar to evaluate the delivery of the course and to give a report so that we may be able to make further improvements.

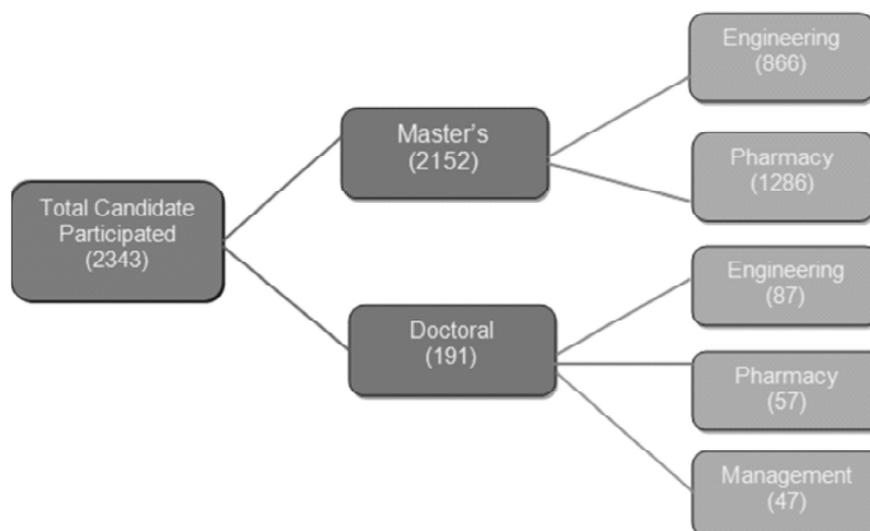
Since August 2012, thirty revised Diploma Engineering programs are being offered in the polytechnics all over the State. For this revision work, GTU's faculty members conducted extensive surveys by meeting industry leaders all over the State. More than 1,000 survey forms were received back and analysed before the new programs were designed. Hundreds of faculty members across the State worked along with our five Associate Deans and the experts from National Institute of Technical Teacher Training and Research, Bhopal to complete this stupendous task. **Let us give a standing ovation to the five Associate Deans – Professors Indrajit N Patel, Dilip H Ahir, Ashutosh K Patel, Atul Shantilal Shah and Shital Shah- for this magnificent contribution to the cause of technical education.**

We have 34 Bachelor of Engineering programs. **Dr. Nilesh M. Bhatt** has taken up the leadership for revising these BE programs before the beginning of the next academic year. He will be working along with the other Deans of Engineering and hundreds of other faculty members. A similar effort is being taken up by the Deans of Pharmacy for the Bachelor of Pharmacy program. I commend Dr Bhatt and the others for taking up this responsibility, which will require them to devote hundreds of hours of time over the next few months. GTU depends upon the selfless service and donation of time by such experts to carry forward its quest for excellence.

(Appendices 1, 3 and 5 describe the work of the Syllabus Development Groups.)

GTU wants to see that Master's and Doctoral theses approved by GTU for the award of degrees should be, on the whole, as good as those at any good University of the world. It has therefore started implementing the concept of a Research Week for reviewing the theses, every year. This is a unique step to improve the quality of thesis. Experts from all over India, and some from outside India, come together to review the work of research students of GTU. Tens of parallel review sessions in different sub-fields in the morning and a number of workshops in the evening made the Research Week look like a Kumbh Mela of experts and researchers.

The number of research students, who presented their research work, during the Research Week of March 12-17, 2012, for review was as follows:



72 of the 194 doctoral students at GTU are having Co-Supervisors from faculty members of Universities in USA, Canada and Europe. 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.

ACTIVE LEARNING

Our nation needs well-educated technologists. The University, the Colleges/ Institutions and the faculty members have the solemn duty to do everything, which is required so that every student may be able to develop his/ her optimum capability. During the last few years, good Universities have moved towards the pedagogy of Active Learning so that all the students can acquire mastery over the subjects they learn. All through the summer of 2012, GTU organized workshops and meetings of faculty members in four courses each of the first year of engineering for the Degree engineering and Diploma Engineering programs. To the workshops, experts from NITTTR, Bhopal, NPTEL program and other places were invited. Under the Active learning & Creating Excitement in the classes, laboratories and workshops (ALCE) program, the University wants to involve the entire GTU community of faculty members and students. So GTU has declared a 'Design Your Own Courseware' competition, under which every student can submit, through the teacher of his/ her course, interesting courseware for one Chapter of his/ her course for an award. The courseware should be both for theory lectures and for the associated laboratory or workshop. These are the first steps in making project-based learning a part of our pedagogy.

From 1st September 2012, GTU has started telecasting lectures by excellent faculty members through BISAG under the ALVCOM (Active Learning Video Lecture Communication) program. We are thankful to the faculty members, **Shri T.P. Singh** of BISAG and **Roma Thakur** for making it possible for the University to run the program regularly on every Saturday and Sunday. **Mansi Thakkar and Kinjal Joshi** have provided a good support to the program.

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. Over the last two years, GTU has developed **the largest faculty development program in the country.**

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, at 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.

L.D.College of Engineering is our largest College. It is also one of the oldest institutions, which has been serving the cause of technical education in the State. I am pleased to say that during the summer of 2012, five conferences/ workshops were organized by different departments of LDCE for GTU.

Many faculty members, management representatives and students have worked to organize these academic events. I want to thank each one of them. **Dr Rajesh Khajuria**, who started the GTU conferences with the first conference in 2010 and **Dr P.G.K. Murthy**, who is organizing the next International conference on 23rd to 25th January 2013 are present here. Please join me in appreciating their work and the work of all the others in GTU, who have contributed their time selflessly and freely to make these events a success.

EMPLOYABILITY and SOFT SKILLS

To improve the placement process, GTU has set up an Integrated Training and Placement (I-TAP) cell. The cell has organized two meetings of Training and Placement Officers from all over the state for building their capacity and for coordinating the placement work at Colleges. I-TAP has set up seven Regional Committees so that Final Year students in every College may be able to get excellent placement service. UDISHA (Universal Development of Integrated Skills through Higher Education) Innovation Clubs in every College/ Institute are being encouraged to work for placement actively.

The University is improving and strengthening the courses on communication skills in all its programs.

At the new MBA program, a 9-credit Finishing school Program has been prescribed, under which a College/ Institution is required to choose any three options out of five. 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, with the expectation that the Colleges will use the facilities provided by SCOPE for improved communication skills. **One of the five options, in the Finishing School program, is offering a foreign language.**

Three modules in the course on Contributor Personality Development (CPD) refer to the development of soft skills. CPD is being updated to include discussion on examples of gender issues so that the young may be able to acquire a more mature and balanced view on these issues.

PREPARATORY WORKSHOPS FOR POTENTIAL STUDENTS: (GO-SET-GO PROGRAM): Jointly with Gujarat Knowledge Society, GTU organized a pilot program for the young, who had passed the Xth and the XIIth standard program and who wanted to join a program at GTU. During the 5-week program, three modules on English and Basic Communication Skills, Advanced Computer Concepts and Life Skills Training program were taken up. Students, who go through such programs, while the long admission process is being completed, become better prepared for studies at GTU Colleges/ Institutes. GTU expects to have a larger program in the years to come.

(Please see http://www.gtu.ac.in/circulars/12May/get_set_go.pdf for details of the program.)

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.

During the year, GTU has signed MoUs with University of Alberta, Canada and University of Wollongong, Australia and Universities at Wesmar and Bielfeld, Germany. University of Applied Sciences, Bielfeld has bagged a grant of Rs 34 lakhs from the Federal Government of Germany for collaborative work with GTU.

Ten of our students, who are graduating today, have visited the University at Wesmar for an eight week course.

As I stated in the last year's Report, in the summer of 2011, **GTU became the first State University, which sent a group of 34 students, led by a faculty member, for a Study Camp of six weeks to the reputed University of Alberta, Canada.** During the summer of 2012, 129 students and two faculty members went on a Summer Study Camp of six to eight weeks to a University in Canada and to another University in USA.

(Appendix 8)

GTU INNOVATION COUNCIL (GIC)

GTU Innovation Council, which had been set up on 2nd August 2010, has become by far the most active Innovation Council in our country. **Shri Harenbhai Shah**, Co-Chair Person of the GTU Innovation Sankul, Gandhinagar has been working to set up benchmarks to self-assess the working of the Sankul. Similarly the 25 Sankuls, spread out over the State are working in their own way to develop a closer inter-action of the industries with our Colleges/ Institutes. 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.

Of the 17,000 Final Year projects, completed by our Final Year Engineering students during the academic year 2011-12, 73% were anchored in the industry and were designed to improve a product or a process in the participating industry.

About 1,900 industries have said in the report that they have benefited from the projects, **done by the students. Such an effort has never before been made by any University anywhere.**

To encourage entrepreneurship, on 2nd October 2012, a special one-day program for women entrepreneurs called " Yes, I can", was organized with the help of C.K.Shah Vijapurwala Institute of Management, Vadodara. As many as 400 girl students participated in the program.

(Please see <http://www.gtu.ac.in/ColCorner/08102012.pdf> for a Report and please see <http://www.gtu.ac.in/circulars/12SEP/24092012.pdf> for the announcement.)

INTELLECTUAL PROPERTY RIGHTS

GTU's first cohort of Final Year Degree students joined their Final Year in August 2011. On September 3, 2011, GTU organized the first of its six 2-day workshops on Patenting in Engineering and Pharmacy. In these workshops **980 faculty members participated.** When the Final Year projects in 2011-12 were near their completion, a Centralized Workshops on Drafting and Filing

Provisional Applications was organized on 29th April 2012. 124 Faculty members participated in a 2-days Advanced workshop on “Patent Search & Drafting of Provisional Application”. GTU office has been informed about 77 patents, which have been filed by the students, faculty members, colleges and SMEs jointly. This is again an unprecedented performance by any Technology University in India.

During the first semester of the academic year 2012-13, GTU has organised eight 1-day workshops on “Patent Search Methodology”, in which **1,405 Faculty members have participated.**

Professor Manish Rachch is spearheading the IPR movement at GTU.

(Appendices 9, 15 and 18 describes GTU Innovation Council, Sankuls, Udisha Clubs, I-TAP and Skills Councils.)

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.

During the year, GTU has organized jointly with GCCI a 3-day Workshop on Energy Efficiency Improvement in Steam Systems from 25th to 27th March 2012. At the Workshop, software tools, developed by US Department of Energy were demonstrated. Dr Arvind C. Thekdi has agreed to provide all the technical help that may be needed. Another two days workshop on “Assessment of Boiler Performance and steam utilization” has been organized at AMA, on 5-6th May 2012 with the help of Bureau of Energy Efficiency, Government of India.)

On Saturday, 24th November 2012, a workshop for faculty members on Introduction to Climate Change Adaptation Program jointly with GIZ(German development Agency) and Cluster-Pulse (an associate of GIZ) at the Gandhinagar campus of GTU. Four faculty members were then deputed to participate in the Training of Trainers one-day Workshop at Delhi.

COLLABORATIVE RESEARCH:

GTU is encouraging joint research by Colleges so that active groups of researchers can be formed:

- (i) GTU BOARD for MOBILE COMPUTING and WIRELESS TECHNOLOGIES: issued a Request For Collaborative Research

Proposals (RCRP) in the area of Mobile Computing, Networking and Applications (MNA). (Please see url: http://gtu.ac.in/circulars/11DEC/MNA_RCRP.pdf). GTU asked for proposals which provided A summary of the research proposal, with Technical Description with the expected challenges and other details in 4 pages along with

- a. The Collaboration Plan within the Team, drawn from at least three Colleges
- b. The outreach plans with government laboratories or large industries, having interests in the field
- c. The Plans to be relevant to Businesses and Industries (BIs) and other entities of the Society.

- (ii) 16th August 2012 : GTU has joined on two research projects, for which the Chief Investigators are Professors Dr. Friedrich Augenstein and Dr. Ramesh Shah from DHBW. The two projects were developed in Germany but are of equal interest to India.

On 28th and 29th November 2012, GTU organized two workshops on (i) Survey on Cooperation Management and (ii) Indo-German Business Activities- DO's and DON'Ts. Dr Ramesh Shah was the Resource Person for the two Workshops. It is expected that the two Workshops will give a kick-start to the two research projects.

- (iii) GTU is setting up a common sophisticated research laboratory for pharmaceutical sciences for a common use by the researchers.
- (iv) World Marketing Summit (WMS) is an initiative of World's most influential marketing Guru Professor Philip Kotler with the mission of creating a Better World through Marketing. GTU has been assigned 'Health' as a topic for incubation, with Kellogg School as the mentor.

At GTU, the project was launched on 5th May 2012 in the presence of Shri. Jaynarayan Vyas, Hon. Cabinet Minister, Government of Gujarat. 45 MBA Colleges and representatives from 15 Ayurvedic industries are working jointly on 15 research projects under K-IAM. Kellogg School of Business is our mentor for the research project.

The project is designed to help begin research in Marketing at 45 Colleges. It is also designed to establish working teams of researchers located at different locations.

Universities in India will be able to become great only through bootstrapping based on collaborative working. Hence this project is an experiment, which aims at inculcating a culture of research, where none existed and to create teams of researchers for achieving a common objective.

(Appendices 10, 13 and 14 presents a Report on the work of the two Boards and Research Projects)

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 has become 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 again taking steps to extend its support to the students who have been "detained". With the help of Calorx Teachers'University, 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 nurture back these students' enthusiasm in studies so that when the student gets back in the chain of regular studies, his/ her morale is high.

DESIGNING THE STRUCTURE OF A UNIVERSITY OF 21ST CENTURY:

611 Universities in India and the Universities in the other countries of South Asia are essentially based on the structure devised by East India Company in response to Sir Charles Wood's Despatch of 19th July 1854 and on Lord Macaulay's Minute of 2nd February 1835. Though the system has been tinkered with many times, a rigorous study of the system has not been made by any research project.

GTU's 'Center for Technology Education, Public Policy and Universities of the 21st Century (GTU-CeTEPU-21)', **jointly with the** 'Center for Governance Systems in Businesses, Industries, Universities, Hospitals, NGOs and Governments (GTU-CGS)' and with 'GTU Skills Council On

Human Resource Studies & Organizational Structures (GTU- CHRSES)' has taken up the research project on **Designing the Structure of a Technology University (DSTU)** for scientifically studying the evolution of a technological university of the 21st century. DSTU has been called a historic initiative by Padmabhusan Dr. P.V. Indiresan. Professor Indiresan, who is a former Director –IIT Madras, advised the research group to not follow the structure of IITs or of an existing University in India. Hon'ble Vice Chancellors of Visvesvaraya Technological University, Karnataka and Guru Jambheshwar University of Science and Technology have applauded the project and have provided valuable inputs to the project

IT INITIATIVES AT GTU

GTU has been a leader in use of IT for its work. The list of initiatives given in the Appendix 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.

e-Assessment has been started as a pilot project in December 2012 –January 2013. This is designed to make the examination processes more transparent.

Professor Ashesh Desai, who has been transferred out of the University, has worked hard for setting up and for operationalization of the IT systems.

The AFFILIATION SYSTEM:

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 52,000. On 26th May 2009, by another notification, GoG transferred post-graduate programs in Engineering, Pharmacy, Management and Computer Applications to GTU. Today a large number of different programs with about 3,50,000 students are affiliated with it. Besides GTU is having a Doctoral programme in all the areas of interest to GTU. It also has 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.**

The University has been working to see that the Colleges deliver the academic programs effectively. The University has been trying to work in partnership with Colleges to see that our students get the best service from the system.

(Appendix 20 provides the data on Affiliation of Programs and the work of endorsement of faculty members at Colleges.)

EVALUATION SYSTEMS

A University must have a fair, credible and transparent system of evaluation of its students. The world expects that the transcripts, which accompany a University's graduates for their entire working life, represent an evaluation, which the world can rely upon. The Appendix on the examination 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 FESTIVALS

Honourable Chief Minister Shri Narendrabhai Modi wants Universities to work for holistic development of their students. Everyone 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 for organizing such activities or any facilities. It organized central and zonal Sports Competitions during 2010, 2011 and 2012. Since 2011, it has also been organizing a Youth festival every year.

GTU's Blood Donation program has won many Sherdil Awards.

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 in the month of December 2011.

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

(The Report on Sports and Youth Festival is given in Appendix 23.)

RESEARCH AND CONSULTANCY SERVICES CELL (GTU-RCSC)

GTU-RCSC has been established with an objective of facilitating research and consultancy projects. This will help the industries, businesses and the society to take advantage of the large pool of talent, in all the different fields of technology, available in GTU. GTU has about 1,000 faculty members with a doctorate degree and it has about 16,000 other faculty members. At any time, GTU has more than 5,000 doctoral and Master's students doing research for their thesis. GTU-RCSC is designed to mine this unprecedented talent pool for fulfilling the needs of today's knowledge society.

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. **Shri Rajnikant Patel** is the Honorary Advisor for RCSC and I thank him for shouldering the responsibility in the interest of helping make GTU a great University.

COLLEGE DEVELOPMENT COUNCIL

GTU has established a College Development Council (CDC) for coordinating all the existing, as well as new, GTU's programs for Colleges. CDC will work to bring out the successful practices, followed by every College, so that the whole of the technical education system may become a nimble learner.

GTU ALUMNI ASSOCIATION

The GTUAA aims to serve the needs of its alumni by helping them advance in their careers through working for satisfying their needs for knowledge inputs and through networking, to link the alumni to the institutions affiliated to GTU, to develop synergistic plans to support the institutions for achieving their mission, and to enable the institutes to add value to all its stakeholders through the membership of GTUAA

Dr K N Sheth, Dean for Advancement, Alumni Affairs and Interdisciplinary Research is leading the CDC and GTUAA initiatives. He is also the Convener for the Convocation Committee. He has worked very hard to make the Convocation a success and to start GTUAA. Please give him a big hand.

We all at GTU feel honoured by the gracious presence of the distinguished dignitaries on and off the dais at this second 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.

To the graduating students of today, I want to say that you are going to be our ambassadors. We have set up GTU Alumni Association to help you through developing Continuing Education Programs (CEPs) for you, at your demand. Please feel free to contact GTUAA whenever you need GTU's help.

I thank Her Excellency, Dr. Kamlaji, the Governor of Gujarat and Chancellor, Gujarat Technological University, Shri Bhupendrabhai Chudasma, Hon'ble Minister for Education and today's Chief Guest, Shri Jay Narayan Vyas, a respected professional, who also happens to be a respected political leader and today's Guest of Honour and two highly talented Indians, HH Sri Sri Ravishankarji and Padma Bhushan Shri A. M. Naik 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 Gitesh Joshi** 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 of Academic Section 2012-13

In pursuit of excellence, Gujarat Technological University is continuously embarking on offering diverse academic courses for the students of Gujarat.

The University started offering Bachelors' degree in Architecture from the academic year 2012-13 at two Institutes. The syllabus for the said course was meticulously designed to cater to the needs of the contemporary society with involvement of prominent experts from the field of architecture.

To provide the students with complete authority in the field of management, a five year integrated course of "Masters' in Applied Management" is also offered from the same academic at two Institutes. To meet the demand of management education among the engineering graduates, dual degree program namely "Master's in Technology Management" is introduced wherein, from Semester III onwards, a student of B.E. can pursue management studies simultaneously. Similarly "Master's in Pharmacy Management" is also on the anvil.

New branches offered at PG level from Academic year 2012-13 in Pharmacy includes M.Pharm in Pharmaceutical Management and Regulatory Affairs and M.Pharm in Quality Assurance and Pharmacy Regulatory Affairs. Correspondingly in Engineering, M.E. in Mechanical (Industrial Engineering), M.E. in Mechatronics Engineering, M.E. in Civil (Town and Country Planning) M.E. in Civil (Construction Management) and M.E. in Mechanical (Advance Manufacturing System) have been introduced.

The syllabus of MCA program was reviewed by the members of the Board of Studies and innovative changes are being incorporated in the syllabus.

The syllabus revision was undertaken in Bachelor's of Pharmacy program wherein the syllabus of Semester I was revised and Semester II syllabus revision is on the verge of completion.

The up-gradation of curricula of Bachelor of Engineering program is being undertaken by inviting academicians and industry personnel for necessary feedback and suggestions.

The total number of students to be awarded degrees and diplomas are as under:

Exam	Total	Exam	Total
BE	14694	DIPLOMA	17977
BPharm	3743	DPH	854
MBA	6051	HM	76
MCA	1197		
ME	786		
MPharm	1279		
	27750		18907

Prepared by Mr. Divyesh Bhagat.

Report on GTU's PhD Program

Gujarat Technological University started the PhD programme in academic year 2011 in faculties of Engineering, Pharmacy, Management and Computer Science.

- ❖ Total 87 students in Engineering, 55 students in Pharmacy, 45 students in Management and 29 students in Computer Science are pre-registered for PhD programme in the academic year 2011-12 . Whereas in the academic year 2012-13 , 163 students are pre-registered for PhD programme.

Major activities under the GTU PhD program

- Coursework at Semester I, comprising of minimum two subjects:
 - i) Research Methodology.
 - ii) Core subject as decided by supervisor and co-supervisor .
- Research Methodology course was taught at a central location on GTU campus for the first batch whereas for the current batch, GTU is going to organize webinars to teach the subject.
- Core subject is offered as a Self Study course or as one of the courses offered at the Post Graduate Program by GTU.
- Gujarat Technological University has allotted 63 foreign co-guides from some reputed University in Europe or Canada or USA in addition to their local Supervisor and the Doctoral progress Committee, for the areas of Engineering, Pharmacy, Management and Computer Science. All the students are to be allotted foreign co guide according to their area of interest in order to provide better exposure and platform for the research.
- The Literature Review by the student was evaluated at the Research Week held annually at GTU in March 2012. Experts were drawn from prestigious institutions like IITs, IIMs, and MDI, MICA, IMI etc. Review reports and feedback from all experts were shared with Ph D students. Feedback was also collected from students about exercise of Ph D review .
- The Literature Review by the students enrolled in batch 2012-13 will be evaluated at the Research Week to be held annually at GTU in March 2013. All the Co-Guides are invited to participate at the Research Week, to evaluate Literature Review by the PhD scholars. All the experts and co-guides will participate by giving workshops/ case studies on their research/project/consultancy work to the students and faculties.
- In respect of each of student of Ph D , Doctoral Progressive Committee (DPC) is constituted with two experts of relevant field of research of the student . Half yearly, DPC along with Ph D supervisor, review of performance of the student is being done during a period decided by GTU and informed through emails to all supervisors. Review reports are to be submitted to GTU .

Prepared by Prof. Almas Juneja

Report on Syllabi of PG Programs (MBA, MCA, ME and MPh)

Gujarat Technological University was established in the year 2008. PG Programs in technology, pharmacy, management and computer applications are affiliated with university from academic year 2009. All government, Grant in Aid and SFI institutes from all over Gujarat excluding departments of other Universities of Gujarat are affiliated to the University. As per policy of the University, syllabus of the Programs is reviewed by the experts 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 coordination for the syllabus.

Introduction of PG programs (MBA & MCA)

MBA

In MBA colleges only four basic programs (functional area) were offered in the year 2009. The programs offered were:-

1. Marketing Management
2. Finance Management
3. Human Resource Management
4. Information System Management.

Syllabus for all courses was reviewed by expert faculty of syllabus committee appointed by the University and was implemented in the year 2010 . MBA Program was designed for two year in four semesters. Teaching scheme is finalized in three components like theory, mid and internal and 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.

A series of meetings were conducted with various syllabus committee members and it was decided to increase the basic programs (functional areas) offered in MBA from four to nine.

New basic programs included are:

1. International Business Management
2. Banking & Insurance
3. Rural & Agro-Based Management
4. Asian Business
5. Sustainable Global Businesses

A 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 the student quality of the university and fulfill the demand of industry.

MCA

In MCA, the syllabus for all the courses is received by the expert faculty of the syllabus committee appointed by the University and implemented. MCA program was designed for three years i.e. six semesters. The teaching scheme is finalized in three components like theory, mid and internal. Marks allotted for each component are 70, 30 and 50 respectively. The theory component is evaluated by the University through the end semester examination while the other two components are evaluated by Institute during semester.

Report on Syllabi of PG Programs (Mpharm):

In the year 2009, when M. Pharm Programs were affiliated with the University, only 6 M. Pharm programs existed. The syllabus for all M .Pharm courses was reviewed by expert faculty of the Syllabus Committee appointed by the University and implemented. The M.Pharm Program was designed for two year i.e. four semesters. The teaching scheme is finalized in four components such as theory external, theory internal, practical external and practical internal. Marks allotted for each component are 80, 20, 80 and 20 respectively. For non practical subjects, 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 the institute during semester.

Every year due to approval by AICTE for new M .Pharm programs in the different colleges, new programs are affiliated by the University. In the year 2010, five more M .Pharm programs were approved by AICTE and affiliated to the University. Again, in the year 2011, three more M .Pharm programs were approved by AICTE and affiliated to the University and in the year 2012, two more

M.Pharm programs were approved by AICTE and affiliated to the University. Thus, now the University offers 16 M.Pharm programs. Every year when new M.Pharm programs are introduced, the University calls for a meeting of the expert faculty of the Syllabus Committee and introduces new syllabus.

Report on Syllabi of PG Programs (ME):

Four new programs viz., M.E. Mechanical (Industrial Engineering), M.E. Mechatronics, M.E. Civil (Town and Country Planning) , Mechanical (Advance Manufacturing System) were introduced during the year . Currently, GTU offers in total 50 branches in Masters programme of engineering. GTU conducts three branches of engineering at its Gandhinagar Campus.

**Prepared by Prof. Almas Juneja
Mr Pankaj Bayati and Mr Mukesh Parmar**

Appendix 4

Report on Syllabi of Under-graduate Programs (BE and BPharm)

The 1st batch for Four year Under Graduate Degree course was admitted by the Gujarat Technological University in 2008. This is the first time that the Gujarat Technological University will be awarding degrees to UG students. Under Graduate Degree will be awarded to approximately 15,000 students in Engineering and 4,000 students in Pharmacy. Toppers in each branch (29 branch) of Engineering faculty and top three performers in Pharmacy faculty at UG level will be honoured with Medals in Annual convocation 2013. The below information can give brief idea about the current scenario of Degrees colleges and students associated with GTU.

UG Course	Number of Colleges	No. of Students Enrolled in 2012	No. students being examined in Winter-12
Degree Engineering	108	56,675	2,60,094
Degree Pharmacy	78	2,219	19,012
Degree Architecture	2	161	161
Hotel Management	1	39	39
PDDC	3	221	1,092
Total	192	59,315	2,80,398

Students are offered Bachelor Degree in Engineering in 37 branches. Wide range of Electives at institute and department level are being offered. College Faculties and Students are involved in various programmes, as per guidance of Honourable Vice Chancellor and Faculty Deans, like Active Learning - Creating Excitement in the Classroom (ALCE), Vishwakarma Yojna, innovation councils to name few.

Final year students of UG courses were sent to foreign universities like Laurentian University (LU), Canada (from 16 June 2012 to 28 July 2012) and to Kansas State University, USA (from 1 June 2012 to 28 July 2012) under International Experience Program, one of its kind and perhaps the first ever initiative by any state university in Gujarat state. Students studied and were examined in following subjects under IEP at foreign universities and their performance/credit was transferred in their academic record in GTU.

Bachelor of Engineering (CE/CSE/IT/EC)

1. Wireless Communication & Mobile Programming
2. Web Data Management
3. Digital Signal Processing
4. Wireless and Mobile Communication

Bachelor of Pharmacy

1. Pharmacology-III
2. Pharmaceutical Chemistry-X (Medicinal Chemistry)

Prepared by Mr. Sumit Sharma.

Report on Curriculum Development Cell for Diploma Engineering

Gujarat Technological University with an aim to fulfil the demands of community and industries have started the process of revamping and reconstructing the curriculum of Diploma Engineering through a unique and scientific approach, meeting major challenges of the present era. The University through a series of brain storming sessions, workshops, meetings and deliberation with educational experts, principals and directors, policy makers, industry professionals, alumni, faculties and the student mass followed a path leading to development of demand driven and competency based curricula for all the 34 branches of diploma engineering. The project was initiated during February 2012 and will be over by December 2013 with the aim to provide detailed curricula of all the branches.

A scanning tool in form of questionnaire has been designed with the help of core group of academicians, NITTTTR experts and representatives from Gujarat Chamber of Commerce and industries to identify the needs of industries and competency expected from pass outs in each branch of diploma engineering. Survey tools have been designed for all the disciplines and validated by industries before implementation. The questionnaire was floated on the basis of a five-point scale ranking, suggested and expected competency and additional input expected by the industries.

With the help of institutions, TPOs, faculties, alumni and different industry associations around 1600 plus industries were contacted in person/by mail/web etc. The survey includes a leading corporate sector, large and medium scale industries and small as well as cottage industries across all the corners of the State. Efforts were made to get views of students and faculties of diploma institutions for balancing the process.

Salient Features of the Revision:

- The Subjects at the core level were synchronized for Administrative and Implementation Simplicity.
- The common consensus was developed for offering core subjects.
- The Branch Specific approach was considered looking to the feedback of Industrial survey
- Basic & Applied Mathematics was consoled for the three groups.
- Applied Physics was consoled for two groups.
- Applied Chemistry was consoled for three groups
- Workshop Practice, Computer fundamentals and applications were considered branch specific.
- Easy and Absorptive First and Second Semester Structure.
- Maximum 4-5 External Paper with maximum 04 Hard core subject Exam and one soft core subject like EoE, CPDP, etc.
- Weight age to Practical/Term Work modules
- Emphasis on Progressive Assessment.
- Externally Practical Exam 4-5-6 semester (4th Sem intradepartmental or third party evaluation)

- Involvement of Industry professionals for IDP-UDP and Elective subject practice evaluation.
 - Provision of Faculty Guided Student Activities
 - Branch Specific Diploma in Most offered Branches Through
 - One Elective Paper in Vth and Two Papers in VIth Semester
 - IDP-UDP from the same Elective Group

The Process:

The University with the help of NITTTR experts analyzed the industry survey, arrived with the basic/ core/application level needs of the industries completed the process of finalizing the full structure of all diploma engineering branches with the support of core convener group, expert faculties from GTU affiliated institutions. The project team also examined the prevailing development of syllabus in leading states like Maharashtra, Karnataka and Tamil Nadu to explore possible inclusion of their modalities. Model question papers for the first two semesters will be designed and uploaded on GTU website to bring uniformity across the state. Various workshops have been organized by GTU to take the feedback of process and the content.

Faculty Development Programme:

As part of implementation strategy based on the needs of the faculties and institutions at large the following FDPs have been organized by the University for the faculties of the first semester courses to get oriented with revision of syllabus.

1. The Faculty Development Programme for the Computer Programming was organized at NITTTR Ahmedabad from 24th to 26th July 2012. Thirty faculties from different polytechnic colleges attended the FDP.
2. The Faculty Development Programme for the Basic Engineering Drawing was organized at NITTTR Ahmedabad on 30th, 31st July 2012 & 1st August 2012. Forty five faculties from different polytechnic colleges attended the FDP.
3. A Faculty Development Programme for the Basic Mathematics was organized at AMA Ahmedabad. 45 faculties from different polytechnic colleges have attended the FDP.
4. FDP for English (Diploma Engineering) was held on 15th Sept. 2012 at Ahmedabad. The objective of this FDP was to orient the faculty members of English with the newly adopted syllabus of English.

The Group:

Dr Akshai Aggarwal, Honorable Vice Chancellor

Dr Indrajit Patel, Chief Coordinator

Ms Sheetal Shah, Mr Dilip Ahir, Mr Ashutosh Patel, Mr Atul Shah Members Dean Council for Diploma Engineering

Prof. Almas Juneja and Mr Kaushal Talati for CDC GTU

Dr S K Gupta, Director NITTTR Ahmedabad Extension Centre

Prepared by Dr. Indrajit Patel & Prof. Almas Juneja.

Report on Conferences, Faculty Development Programs, Workshops, Seminars and Other Academic Events

- International Conference on "Dynamics of Global Recession : Economic and Corporate Strategies for Survival and Growth" was organized by Gujarat Technological University jointly with Parul group of Management Institutions from 6th to 8th January 2012 at Parul campus, Limda, Waghodia, Baroda. The conference was inaugurated by Dr. Akshai Aggarwal, Hon'ble Vice Chancellor, GTU and key note address was given by Dr. Ravindra Dholakia, Professor of Economics, IIMA. Dr. Samo Bobek, Dean, Faculty of Management, University of Maribor, Slovenia was among the prominent speakers at the conference.
- Workshop on Curriculum Development for 'Project Management in Chemical Industries' was organized on 16th May, 2012 at GTU Conference Hall, Ahmedabad, where experts from various industries and academia attended.
- A two day Faculty Development Programme for "English Training & Certification" was organized by GTU in association with Creation of Opportunity through Proficiency in English. GTU in its pursuit of excellence has added one more feather to its hat by organizing this FDP for faculties of GTU MBA Institutes / Colleges on 31st March and 1st April, 2012 at AMA, Ahmedabad. Appx. 90 participants from MBA and Engineering colleges attended the FDP.
- The "Visualization of Calculus" program was held at L. D. College of Engineering from 4th to 8th June 2012. The main objective of this program was to introduce animations and videos of calculus. It may help the students to obtain formal recognition of Mathematical skills and applications of Mathematics.
- On 2nd June, 2012 GTU organized its second edition of entrepreneurship workshop for students under its initiative 'Student Startup Support Systems'. This initiative aims to help GTU students to convert their innovative products and business ideas into viable business models and products. The workshop was attended by both faculties and students.
- National Conference on Environmental Technologies: Today and Tomorrow (ETTT-2012) on 18-19th May, 2012 at LDCE and the objective was to increase public awareness related to environmental issues.
- One day workshop on NPTEL on 19th May 2012 at Christ Institute of Management, Rajkot. The workshop witnessed participation of over 68 faculty members from various institutes of engineering and management within Gujarat.
- A one day workshop on "Applicatin of Six Sigma and Industrial Relations in Human Resource Management" at J.K.Patel Institute of Management on 31st March 2012.
- 80 participants had participated in Content Management System on 9-10-11 July, 2012 at Ahmedabad Management Association, Ahmedabad.
- Report on Short Term Training Program (STTP) on "Embedded System Design" at Vishwakarma Government Engineering College, Chandkheda, Ahmedabad from 25th

- 29 th July 2012. The main objective of the program was to introduce effective learning methods for embedded system design and device experiments. One session on IDP/UDP based on embedded system was also held for students.

- 140 Participants had participated in the 5th Global FDP for MBA on 26th -27th July 2012 at Ahmedabad Management Association, Ahmedabad. The FDP basically focused on developing subject knowledge, case method of teaching, qualitative and quantitative teaching methods, and innovative pedagogical techniques.
- A faculty development programme on Basic Engineering Drawing was held from 30th July to 1st August, 2012. It was an attempt to develop fundamental understanding and application of engineering drawing.
- The second Meeting of the CII WR Employable Education Sub-Committee 2012-13 was held on 3rd - 4th August, 2012 at Ahmedabad Management Association, Ahmedabad. The Program was attended by 44 Participants who were senior faculty members of 29 MBA Institutes affiliated to GTU.
- A Workshop on "Patent Search Methodology" was held on 8th September 2012 at Vishwakarma Government Engineering College (VGEC), Ahmedabad. Nearly 115 faculty members from more than 15 Engineering colleges of Ahmedabad and Gandhinagar zone of GTU participated in this workshop. The Objective was to impart a focused training to faculty members on Patent Search Methodology which will help them as well as their students to select IDP/UDP, which should be innovative and productive in nature.
- A Faculty Development Programme for English (Diploma Engineering) was held on 15th Sept. 2012 at AMA, Ahmedabad. The objective of this FDP was to orient the faculty member of English with the newly adopted syllabus of English.
- A Workshop on "Excellence of education and viability of MBA college - preparing a roadmap for GTU and its colleges" was held on 28-Sept. 2012 at Gujarat Technological University, Gandhinagar Campus. It was designed to serve three major purposes to enable our Graduate students to become confident, knowledgeable, and skilled as well as successful in India and abroad.
- A Workshop on Introduction to Project Management was organized on 4 to 6 Oct. 2012 at LDCE, Ahmedabad.
- "Research Summit on People Management and Organization Development Needs of Indian Industry with Special Reference to Gujarat" was held on 5th November, 2012 at Gujarat Technological University, Gandhinagar to mobilize the HR Faculty of MBA Schools of different towns - small and large - of Gujarat Technological University, to work on a common platform for meaningful research and to facilitate HR faculty to enhance their competency levels in Research.

Prepared by Prof. Almas Juneja, Mr. Himanshu Raval & Ms. Hema Rajput

Report on MoUs between GTU and other Organizations During the Year 2012-2013:

Sr. No.	Name Of The Party With Whom Mou Is Signed	Focus Area/Purpose Of MoU/Loc
1.	BISAG Dept. of Science & Tech. Govt. of Gujarat	Webinars and online presentations
2.	Die-PA Personal leasing - GMBH	International Job placement for engineers
3.	Bielefeld University of Applied Sciences, Germany	Students / Faculty Exchange Programme Joint Research and Consultancy projects
4.	Ahmedabad Aviation & Aeronautics Limited - Ahmedabad	Industry Institute Interaction and providing training to students of GTU
5.	University of Maribor - Slovenia	Students / Faculty Exchange Programme Joint Research and Consultancy projects
6.	Association of Business Practitioners, London (UK)	Students / Faculty Exchange Programme Joint Research and Consultancy projects
7.	Entrepreneurship Development Institute of India, Gandhinagar	Faculty Development Programmes Joint Research and Consultancy projects Jointly setting up of incubator centre for business entrepreneurship guidance and training.
8.	Electronics and Quality Development Centre, Gandhinagar	Helping students innovators in fabrication, technology support , providing mentoring and involving its resources in the activities of GTU Innovation Sankul, Gandhinagar
9.	Hochschule Wismar - University of Applied Sciences Technology Business and Design, Germany	Study + internship for fresh engineers
10.	MCX-SX, Mumbai	Joint Certificate programmes for students Faculty Development Programme Students live lecture series. Joint lecture series. Joint Research Projects.
11.	The Governors Of The University Of Alberta As Represented By The Alberta School Of Business	Students / Faculty Exchange Programme Joint Research and Consultancy projects

Sr. No.	Name Of The Party With Whom Mou Is Signed	Focus Area/Purpose Of MoU/Loc
12.	Calorx Teachers' University, Ahmedabad	Students / Faculty Exchange Programme Joint Research and Consultancy projects
13.	Junagadh Agriculture University	Students / Faculty Exchange Programme Joint Research and Consultancy projects
14.	Kamdhenu University, Gujarat	Students / Faculty Exchange Programme Joint Research and Consultancy projects
15.	De Monteforte University Leicester, United Kingdom	Students / Faculty Exchange Programme Joint Research and Consultancy projects
16.	University of Central Lancashire, United Kingdom	Students / Faculty Exchange Programme Joint Research and Consultancy projects
17.	Raksha shakti University, Ahmedabad	Students / Faculty Exchange Programme Joint Research and Consultancy projects
18.	SPIPA, Ahmedabad	Students / Faculty Exchange Programme Joint Research and Consultancy projects

Report on International Experience Program (IEP-2012)

Introduction

International Experience Program (IEP) is a step forward from GTU in the direction of becoming truly global University under the visionary leadership of Dr. Akshai Aggarwal, Hon'ble vice chancellor

Foreign universities are contacted and after thoughtful planning, the program has been implemented for MBA students and in collaboration with University of Alberta, Canada in summer of 2011.

The journey continued in 2012 and collaboration has been made between Gujarat Technological University (GTU) and two universities, one from USA and another from Canada.

During summer 2012, 129 students have been to USA and Canada under IEP successfully for the period of two months.

In the current year, we have started working towards more collaborations with the universities of different countries. These collaboration is with British, American, Canadian and German universities.

Under IEP 2012, students from Communication, computing and pharmacy have been to foreign universities. By increasing our partners for 2013, we are trying to accommodate students from Mechanical, Electrical, and Civil engineering branches. This is still under progress.

Purpose of International Experience Program:

- ã To get Exposure and to advocate a different experience for studying.
- ã The foreign universities, in which our students go, have their expertise on the subjects, which the students are going to study there. So it is beneficial for our students to study the core concepts of the subjects.
- ã Apart from academia, the student will also seek benefit during finding a good job. This certificate of having studied in such universities would act as an accolade for the upcoming students.
- ã GTU being a new university within short duration of 5 years, has established a benchmark in many fields, one of which is International collaborations.
- ã U.S.A and Canda are countries which spend a lot of capital in the area of research. So for the students who are willing to go in the research area, this program is a good opportunity.



GTU Students at Kansas State University, USA:

18 students from GTU have been granted visa under this program. The program has started on 4th June 2012 and continued for 8 weeks. As mentioned above, students of Electronics and communication have studied two subjects from semester 7. The students had to study full time at K-state campus, do the practical and participate in the exams as they do in their parent college at GTU.

The classes were audio-visual. Their lectures were recorded every day. They were uploaded immediately after the completion of our classes. Students were facilitated to download the lectures and refer to them any time after the classes and during the exams. Every student has to do weekly Quizzes which were either timed or not-timed both. These quizzes were meant to enhance the knowledge and to learn the subject seeing the current scenario and applicability. In addition to this the students have been accessed on the bases of the conventional methods also such as Midterm exam and viva-voice.

Students have been access for the plagiarism for the work they were doing and have been encouraged to put their own view and stick to originality of the work they do.

Summary of International Footprints:

- **Summer 2012 :**
 - a) Electronics and Communication: 18 students of B.E. (EC) went to Kansas State University, USA in June 4-July 27, 2012. They studied the following courses at the American University: (i) Digital Signal Processing (ii) Wireless Communication.
 - b) Pharmacy: 100 students of B.Pharm went to Laurentian University, Canada from 15th June- 29th July 2012. They studied the following courses at the Canadian University: (i) Pharmacology -III (ii) Pharmaceutical Chemistry-X
 - c) CS/IT/CA: 100 students of BE(CE), BE(IT) and MCA went to Laurentian University, Canada from 15th June- 29th July 2012. They studied the following courses at the Canadian University: (i) Wireless Communication & Mobile Programming (ii) Web Data Management

Future Development:

For the IEP 2013, GTU is in continuous talk with both the universities for the summer of 2013. Laurentian University, Canada has already confirmed the subjects for Mechanical Engineering along with the subjects of pharmacy and computer engineering.

GTU is working closely with KSU to continue the program for summer 2013, the KSU team of three faculties has visited GTU in October 2012 for further development of the IEP program and discussed further for development in this direction. The communication is going on with k-state about the possibility of incorporating more subjects from different branches.

GTU is in contact with UK and German universities to establish the students exchange program for the coming summer.

An MoU has already been signed by GTU with the UOA (University of Alberta) to develop summer program, faculty development programs and joint research work.

Prepared by Mr. Hiren Thaker

Report of GTU Innovation Council

A New Model of Collaboration for Innovation

GTU won the prestigious **World Education Summit award** in 2011 within 8 months 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 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 this year. The process has been developed jointly with Techpedia and 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

- 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.
- 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.

GTU has established 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 to bring the mentors from outside the University by using its network.

Recent accomplishments during the past 6 months:

GTU Innovation Council has linked 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 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 Vice Chairperson (Academia) and a Vice 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.
- 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 Eng 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 State 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 backward rural sectors/spaces. This will ensure that the effort becomes more holistic, inclusive.

Ten Key Interventions by GIC:

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)

Dr Aniruddh Singh again visited GTU on 5th April 2012 to exchange notes on the progress of the idea at the two Universities.

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

¹The name has been borrowed from the Clubs, being promoted by the Commissioner for Higher Education, through the Knowledge Consortium of Gujarat.

Following are the details of workshops:

Sr. No.	Particulars	Workshop Place	Date
1	"Patenting in Pharmaceuticals"	AMA, Ahmedabad	3-4 September, 2011
2	"Patenting in Engineering"	Science City, Ahmedabad	24-25 September 2011
3	"Patenting in Engineering"	V.V.P. Engineering College, Rajkot	7-8, January 2012
4	"Patenting in Engineering for faculty"	Parul Institute of Engineering And Technology, Baroda	21-22, January 2012
5	"Patenting in Engineering"	Visnagar, Mehsana	11-12, February 2012
6	"Patenting in Engineering"	Bhagwan Mahavir Technical Campus, Surat	3-4, March 2012
7	"Patent Search & Drafting of Patent Application"	LJ College of Engineering, Ahmedabad	28-29, April 2012
8	"Filing of Provisional Patent Application"	L.J.College of Engineering, Ahmedabad	29th June 2012
9	"Patent Search Methodology"	Vishwakarma Government Engineering College(VGEC), Ahmedabad	8th September 2012
10	"Patent Search Methodology"	C.U.Shah College of Engineering & Technology, Wadhwan, Surendranagar	22nd September 2012
11	"Patent Search Methodology"	Atmiya Institute of Engineering, Rajkot	23rd September 2012
12	"Patent Search Methodology"	LCIT, Bhandu, Mehsana	29th September 2012
13	"Patent Search Methodology"	Ankleshwar	6th October 2012
14	"Patent Search Methodology"	Vadodara	20th October 2012
15	"Patent Search Methodology"	N.G.PATEL POLYTECHNIC, ISROLI.	3rd November 2012

Prepared by Mr. Hiranmaya Mahanta

Report of GTU Research Boards:

GTU has set up two boards,

- A. Board for Mobile Computing and Wireless Technologies
- B. Board for Environment & Green Technologies

A) Report of the GTU Board for Mobile Computing and Wireless Technologies

For the last several decades, wired technologies have been used by educators, administrators, students, and others in higher education to help them teaching and learning. In this century, however, institutions of higher learning are moving towards the use of mobile wireless technologies. Similar to other wired technologies, mobile wireless technologies have first been used in industry sectors. The movement of mobile wireless technologies in education is a recent trend, and it is now becoming the hottest technology in higher education. The development of mobile wireless technologies has generated a considerable amount of excitement among all.

Gujarat Technological University has always supported the latest trends in industry and tried to implement for the 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.

The Research Board on Mobile Computing and Wireless Technologies has 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 this field. GTU Board for Mobile Computing and Wireless Technologies was set up on 6th February 2011 and it has been continuously conducting Workshops.

We need a forum to gather as many wireless and mobile technology experts and developers. As curriculum has been the foundation of these technologies since the very beginning, we have the same aspirations for further development. GTU promotes various wireless technologies with its development platforms like a raised area that is capable of delivering excellence.

Over the last few years, there has been a substantial increase of research & development 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. Regardless of such interests in mobile wireless technologies, there is some lack of academic research on the use of mobile wireless technologies in the higher education. To overcome this, a master's program in this area was started with the help of CDAC, Pune and SEER Academy, Hyderabad by GTU.

GTU expects experts, faculties and students to come and join the Board in huge number and benefit from these revolutionary technologies and take back with them knowledge and the thrill to be a part and contribute to one of the widely used technology in the world.

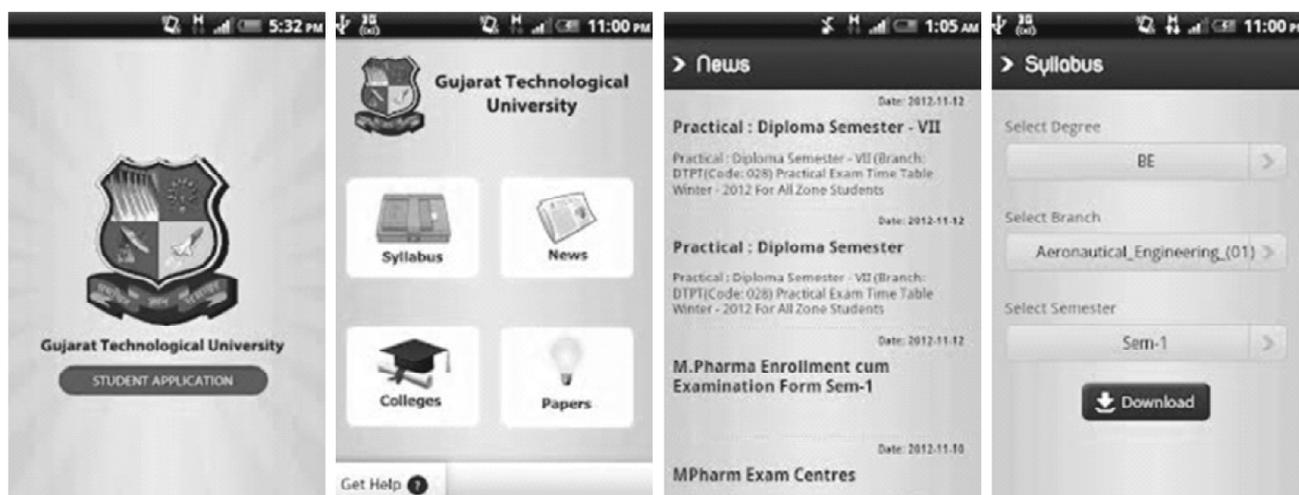
GTU proposes to establish its own Post-graduate Centers. Among these research centers, one is the Center for Mobile Computing and Wireless Technologies. The Centre will have research labs and faculties and researchers associated with it. To establish this research center, GTU has also formed an advisory committee.

Center for Embedded Systems and VLSI Technologies: GTU has been conducting for the last two years a Master's program in Embedded Systems and VLSI Design. GTU is working on plans to set up a world class lab in VLSI.

Some of the applications developed by the GTU Faculty/Student:

1) GTUAPP:

GTU - Gujarat Technological University decided to make the best use of Smartphone by delivering state of the art mobile solution for students, ' GTUAPP '. This application will enable students and university to create a bridge between them. You can find all detailed information on the Features list.



Developed by: Hardik Thakkar and Team (Students-Silver Oak College, Ahmedabad)

You can find more about this GTUAPP application at:

https://play.google.com/store/apps/details?id=com.gtustudents&feature=search_result#?t=W251bGwsMSwxLDEslmNvbS5ndHVzdHVkZW50cyJd

2) MCA-CollegesInGTU:

The Master of Computer Applications (MCA) is a postgraduate degree in computer application streams awarded in India. Full time MCA programmes normally take three academic years. The primary emphasis in MCA curriculum is on the development of diverse types of application software rather than designing computer hardware and systems software.

The SFI MCA Colleges in Gujarat are affiliated with Gujarat Technological University (GTU). This application allows you to go through the map and locate the name of MCA colleges' district wise. This application contains small bits of information.



Developed by: Dr. H. B. Bhadka, Ravirajsinh Jadeja, Hiren- C U Shah College of Master of Computer Application

You can find more about this MCA-CollegesInGTU application at:

<https://play.google.com/store/apps/details?id=Com.Android.CCMCA> & feature=search_result#?t=W 251bGwsMSwxLDEsIkNvbS5BbmRyb2IkLkNDTUNBII0.

These are the examples of only two applications submitted by GTU Students and Faculties to the application store, but there are so many applications developed by GTU Students and Faculties.

In the Two Days Workshop on Modern Digital Design, organized in Collaboration with e-Prayog-Virtual Labs Project, IIT, Bombay, IITB had given around 93 Krypton Boards (worth Rs. 7000/ each) FREE OF COST to GTU. Participating Institute was given one Krypton board and CD with necessary material at the end of the workshop. Around 28 Krypton boards were distributed to the participants and remaining around 65 boards given to GTU, so that interested institute can collect krypton boards from GTU.

B) 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.

Activities in 2012:

GTU with GCCI has jointly organized a three days workshop on "Energy Efficiency in Industrial Steam System" at GCCI Ahmedabad 25-27 March -2012

Dr. Riyaz Papar, Dr. Greg Havell and Thomas Wenning, Department of Energy, US conducted the workshop.

The course of workshop was divided into four major categories.

1. Steam System Fundamental
2. Steam generation efficiency
3. Utilization of steam effectively
4. Management of steam distribution

GTU, jointly with GCCI, organized a two days workshop on "Assessment of Boiler Performance and steam utilization", at AMA, on 5-6th May 2012.

Two days' workshop on "Assessment of Boiler Performance and Steam Utilization" Dr. A.K. Asthana (Seminar Technical specialist), from Bureau of Energy Efficiency, New Delhi, conducted the work shop.

Topic:

1. Fundamentals of energy
2. Fuel and combustion technology
3. Assessment and selection of boiler
4. Steam utilization and distribution
5. Insulation

The participants got an insight in to fuels combustion, boiler operation, steam generation and utilization. It was a highly interactive programme as it included quizzes and group exercise for all the topics of the course.

Prepared by Prof. Almas Juneja, Ms.Toral Vandra & Ms. Priyanka Trivedi

Report of Contributor Personality Development Program

Gujarat Technological University has introduced a subject named Contributor Personality Development Program as there is a great need to equip students with not only the right skill-sets but also the right mindsets. The combination of effectiveness with human values is crystallized in the concept of "contributor ship".

Technology students should not only be excellently trained in the technological field, 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. The students must learn to prepare their resume and they should also be groomed for presenting themselves at interviews. The subject is introduced in all the programs of GTU with the motive to enable the students to develop the right approaches to their peers, seniors, industry, and their own future, which help them to become more responsible and capable of shaping their own lives.

Therefore, the program is rightly called a "Contributor Personality Development Program".

To make this program more effective, GTU has organized Faculty Development Programs to train all the faculties who teach this subject in the respective institutes across Gujarat.

The Faculty Development Program is a two days' workshop which walks through the entire program curriculum, and enables the faculties to explore the "contributor" personality. It also explores the challenges of assimilation in a program which is not about knowing but about growing; which is not about teaching but about facilitating. The workshop familiarizes faculties with the program study books and the online web service which supplements classroom learning. Mock sessions are held during these workshops under the expert guidance so that faculties can improve their delivery capability before actually running the program for students.

Total Sixteen workshops of Contributor Personality Development Program - Phase I were held at various locations of Gujarat viz. Ahmedabad, Rajkot, Surat and Vadodara in the year 2012 and total Seven Workshops for Phase II were held along with three Audits per zone. In these workshops, 868 Faculties were trained to teach the subject effectively and infuse the 'contributor ship' to the students.

The purpose of the Process and Effectiveness Audit (PE Audit) is to check

- ✓ Whether the prescribed processes for running the class are being followed?
- ✓ The effectiveness of the course i.e. whether the course is adding value to students?

In the Audit, the colleges were given grades according to their performance while teaching this subject, according to the grades the colleges were bifurcated into A - Grade Colleges (Role Models), B - Grade, C - Grade, and F - Grade (Severely Challenged).

According to the grades, in order to motivate the faculties who have taught this subject effectively, a one-day design workshop was organized by GTU. The participants of the

workshop were the i-become team including the master trainer and a group of faculty members selected on the basis of their commitment to the program to share their innovative ideas to make teaching of the subject more interesting.

Prepared by Prof. Almas Juneja & Ms. Hema Rajput

Report on Designing the Structure of Technology Universities (DSTU)

The first step was taken on 27th April 2011, when the GTU Forum for **Human Resource and Organizational Structures** was set up. GTU's 'Center for Technology Education, Public Policy and Universities of the 21st Century (GTU-CeTEPU-21)', jointly with the 'Center for Governance Systems in Businesses, Industries, Universities, Hospitals, NGOs and Governments (GTU-CGS)' and with 'GTU Skills Council On Human Resource Studies & Organizational Structures (GTU- CHRSOS)' has taken up the research project on **Designing the Structure of a Technology University (DSTU)** for scientifically studying the evolution of a technological university of the 21st century. DSTU has been called a historic initiative by Padmabhusan Dr. P.V. Indiresan. Professor Indiresan, who is a former Director –IIT Madras, advised the research group to not follow the structure of IITs or of an existing University in India, but to evolve a unique structure relevant to 21st century technology education. Dr H. Maheshappa, Hon'ble Vice Chancellor, Visvesvaraya Technological University, Karnataka has applauded the project and expressed his full support to the research project. Dr M L Ranga, Hon'ble Vice Chancellor, Guru Jambheshwar University of Science and Technology, Haryana has provided valuable inputs such as campus outlay, students' discipline etc. for the project.



The ideas and objectives of DSTU are as under :

1. To develop a system of Governance by which GTU is able to integrate education, training and research in its four disciplines namely Engineering, Pharmacy, Management and Computer Application at the level of Diploma, Degree, Post Graduation and Doctorate.
2. To identify those organizational components which are needed to pursue the objective of GTU to monitor the activities related to admission, education, training, research, industry interaction, inter institute collaboration and international collaborations.
3. To sensitize the members in all the institutions at all the levels and to encourage them to put in their best efforts in making GTU a World Class Technological Institution.

DSTU committee members studied the structures of various institutions as indicated below :

- Ancient University of India by Dr. Rajesh Khajuria, Director, SMJV's CKSVIM, Vadodara
- Technological University of India by Dr. Rajesh Khajuria, Director, SMJV's CKSVIM, Vadodara.

- Structure of IIT Khargpur by Dr. K.N. Sheth, Director, Shri Saraswati Group of Colleges, near Ahmedabad.
- Asian University by Dr PGK Murthy, Director, Parul Institute of Management, Waghodia.
- Global University by Dr. Trupti Almoula, In charge Director, Narmada College of Management, Bharuch

On the basis of this study and current structure of Gujarat Technological University, the committee members decided to prepare a proposed structure for the GTU regional centers, schools and various GTU wings. Vice-Chancellors and Registrars of various technological Universities who contributed greatly to the field of technical education, were invited.



Dr. A. P. Singh, Dean – R&D and Innovation, Punjab Technological University, Dr. Kamal Taori, Former IAS and Ms. Irmal Marla from Germany , Padmashree Dr. K. L. Chopra, Former Professor, IITD & Former Director, Indian Institute of Technology, Kharagpur, Dr. D. S. Chauhan, Vice Chancellor, Uttarakhand University, Dehradun, Dr. Premlatha Rajan, Director, Academic Courses, Anna University, Chennai, Dr. H. P. Khincha, Former Vice Chancellor of Vishwasaraya Technological University gave their valuable suggestions.

DSTU committee members studied the prevailing structure of GTU, and proposed the future structure for GTU. DSTU Committee proposes to publish a book on the suggested model of technological university .

Prepared by Dr. Trupti Almoula, Prof. Almas Juneja and Ms. Krutika Desai

Report on Kotler's Incubator for Ayurvedic Medicines (K-IAM)

World Marketing Summit (WMS) is an initiative of World's most influential Guru of Marketing - Professor Philip Kotler with the mission of 'Creating a Better World through Marketing'. Professor Kotler deliberated upon the concept of incubator and has partnered with the renowned universities of the world. The Universities across the world have taken up this mammoth task of making the world better through marketing.



As India has been assigned 'Health' as a topic for incubation and establishing the Kotler's Incubator, Gujarat Technological University (GTU) has taken the initiative for the same.

GTU WITNESSES A HISTORICAL MOMENT. Kotler's Incubator for Ayurvedic Medicines (K-IAM) was launched on 5th May, 2012 in the gracious presence of Shri Jaynarayan Vyas, Hon. Cabinet Minister, Government of Gujarat and Dr. Akshai Aggrawal, Hon. Vice Chancellor of GTU. The incubation centre is meant to explore horizons of development for the great traditional wisdom – Ayurvedic Medicines of India.

Shri Jaynarayan Vyas, Hon. Minister, Health & Family Welfare and Tourism, discussed about the major challenges of Indian Ayurvedic Medicine System. He said that in spite of many challenges, the incubator can prove to be a milestone effort to bring back the lost glory of Indian traditional medical system. He ensured all support within his purview for making the efforts of this incubation centre fruitful.

GTU had divided research project into 15 areas and it was decided that 15 MBA Colleges will be the primary researchers. Each primary researcher brings 2 other MBA Colleges, from two other geographic zones, as the collaborating researchers.

In nutshell GTU's Kotler's Incubator center for Ayurvedic Medicine is emerged as a center for research by all management faculties and started in its true sense, with the support of all the Deans and senior faculty members across Gujarat.

Hence this project is an experiment, which aims at inculcating a culture of research, where none existed and to create teams of researchers for achieving a common objective.

The Kotler's incubator will not only help the reach of Ayurvedic Medicine and basic science but also help the peripheral industries. '

Prepared by Prof. Almas Juneja & Ms. Krutika Desai

Report on Joint Research Projects undertaken by GTU School of Global Studies

Indo-German Study Centre and GHBW University, Stuttgart, Germany

A Research Project on “Survey on Cooperation Management”

“Dos and Don’ts” in the context of Indo-German Business Activities

Workshop on “Survey on Cooperation Management” being undertaken by Gujarat Technological University and GHBW University, Gandhinagar Campus on 28th November 2012. Many Directors, faculty members and doctoral students from various colleges interested in the areas of Germany-India Research Project actively participated in the two Workshops.



Dr Ramesh Shah is a reputed Management and Educational Consultant from Germany and head of the firm EUROASIA Shah Consultants . Dr Ramesh Shah is a citizen of Germany of Indian origin. Dr Khajuria gave a brief idea about the Indo-German Training Center, established in Mumbai in 1991 with Centers in Chennai, Bangalore and Kolkata, is the management training division of the Indo-German Chamber of Commerce. The IGTC conducts a flagship **18-month full-time Post Graduate Programme in Business Administration** based on the famed **German Dual Education System** that grooms business management trainees for the future requirements of Indo-German industries and businesses.

Dr. Aggarwal shared his experience of working with foreign universities and stated that many of our students as well as teaching faculty members have even a higher standard of knowledge, but we have to work as hard as our foreign counterparts, if we want to be respected as much as they are.

Prof. Dr. Ramesh Shah who gave a brief presentation on **Cooperation Management** was highly interesting and interactive. All the participants learnt thoroughly his knowledge and insight into the workshop subjects. Many definitions of “Cooperation Management” emerged from the participants through interaction. According to Dr. Shah, “**Cooperation**”



denotes collective of persons working in an enterprise *voluntarily* for the achievement of a particular purpose". It is the willingness of individuals to help each other.

As a part of Indo–German Research Project hypothesis and questioners will be prepared and the actual survey will be undertaken in February 2013 during the next visit of **Dr Shah with Prof. Dr. Augentein.**

All GTU MBA colleges will be divided into different zones and students and faculties will work in their respective areas. The work then will be compiled, analyzed and sent to GHBW Stuttgart, Germany.

Prepared by Prof. Almas Juneja & Ms. Krutika Desai

Report on Skills Development Councils

GTU has set up three MBA Skill Councils in Financial Services, Human Resources and Marketing Management. Each Council has Sectoral Panel which is Co-Chaired by an MBA College and a leading professional from industries and businesses. GTU plans immersion studies for MBA students and researchers through the three Skill Councils. On 13th May 2011, GTU started the process of setting up the following MBA Skill Councils at a meeting of the Directors and Managing trustees of the Management Institutes, affiliated with GTU:

1. **GTU – Financial Services Skill Council (GTU-FSSC)**
2. **GTU – Council for Human Resource Studies and Organizational Structures (GTU-CHRSOS)**
3. **GTU – Skill Council for Marketing (GTU-SCM)**

The first meeting of the GTU MBA Skill Councils was held jointly with representatives from industries on **25th June 2011 (Saturday) at NICM, Gandhinagar**. The agenda of this meeting was **Nomination of Industry Representatives to the three Councils**. 32 top-notch professionals from industries and 23 Professors and Directors from GTU's Management Institutes of Gujarat were present at the meeting. The objective of these three skill Councils was to study and do research on the skill sets and certifications required in the three areas. GTU students and professors will work with the industries through the Skill Councils to ensure that GTU's MBAs are able to serve our industries competently.

1. **GTU – Financial Services Skills Council (GTU-FSSC)**

- ã **GTU-FSSC** had organized a one day workshop on 'Challenges and Opportunities in Commodity and Currency Markets' with **FTKMC (Financial Technology Management Co.)** FTKMC & GTU endeavor to popularize trading in Commodity and Currency futures by promoting various market concepts and dynamics. The motive behind the workshop was to give in-depth knowledge of commodity and currency. Dr.P.G.K.Murthy, Dean, Faculty of Management, GTU and Director , Parul Institute of Management and Research coordinated the event .

Gujarat Technological University's Financial Skills Council had also organized a one day workshop on “ **Challenges and Opportunities in Equity and Debt Markets jointly with Motilal Oswal Financial Services Ltd , Mumbai**. The objective of this program was to throw light upon the identification and acquisition of knowledge and skill sets required for working in equity and debt markets and expose participants to data packages , market operations etc. Dr.P.G.K.Murthy, Dean, Faculty of Management, GTU and Director , Parul Institute of Management and Research coordinated the event .

- ã Anand Institute of management, a management institute under GTU (Zone 3), had hosted a management talk on “**Financial Services**” under the leadership of **Honorable Director Dr. N. N. Patel**. All the management institutes of Zone 3 were invited to attend the seminar along with directors, faculties and students.

The seminar was held as a part of the initiative by GTU, so that the students gain practical insight about the different facets of the sectors.

2. GTU – Skills Council for Marketing (GTU-SCM)

- ã **GTU – Skills Council for Marketing (GTU-SCM)** organized a one day workshop on “**Challenges of Marketing in Specific Industry Segments.**” The expert speaker was Mr.G.P.Namdeo, Formerly vice president of Piramal Healthcare and currently Executive Director of Baroda Productivity Council and Ms Punita Dave whose present profile is of a soft skill trainer, Mr.Maulik Bhansali, CEO of Netweb software Pvt Ltd. And Mr.S.Sukul who has a rich experience of four decades in India’s leading pharma company - Sarabhai Chemicals which included overseas assignment also.
- ã **GTU’s skill council of Marketing organized a Guest session of Mr. Jitesh Mehta – Sales Head, Radio Mirchi-Gujarat** on 1st October, 2011. This guest session was hosted by S.V. Institute of Management, Kadi.

3. GTU – Council for Human Resource Studies and Organizational Structures (GTU-CHRSOS):

- ã A one day workshop on “APPLICATION OF SIX SIGMA AND INDUSTRIAL RELATIONS IN HUMAN RESOURCE MANAGEMENT” organized by **GTU-SCHR** at Dr. J. K. Patel Institute of Management. The opening session of the workshop was conducted by **Mr. KETAN PATEL, (Deputy General Manager) (Six sigma-master black belt) from Linde Engineering India (LEI)**, the first expert speaker. Mr. Ketan Patel focused on importance of “SIX SIGMA”.
- ã With the objective to enhance the employability of the MBA students of CKSVIM and Gujarat Technological University (GTU) and in order to understand the industry requirements from prospective employers, the ‘**1st Round-table on HR skills**’ was organised by C K Shah Vijapurwala Institute of Management (CKSVIM) on 18th June 2011 at SMJV Campus on R V Desai Road, Vadodara.
- ã Bhagwan Mahavir College of Management, Surat inaugurated the GTU-CHRSOS. Shri Rajesh Jain, Head, Project HCL UK (London) inaugurated it. Mr. Rajesh Jain giving key note address to 200 students on “**Global Business Environment & Challenges before India**” emphasized that communication and negotiation skills were very important today to meet the challenges of global business environment.
- ã **GTU-CHRSOS** had scheduled a “**Research Summit on People Management and Organisation Development Needs of Indian Industry with special reference to Gujarat in November 2012**”. The Aim of this Summit was to Mobilise the HR Faculty of MBA Schools of different towns – small and large – of Gujarat Technological University to work on a common platform for meaningful research & to facilitate HR faculty to enhance their competency levels in Research. Subsequent to this Summit, the HR Skills Council is in the process of designing an HR Conference on the Latest trends in HR at the International level.

Prepared by Prof. Almas Juneja & Ms. Krutika Desai

Report on Vishwakarma Yojna

Approach Towards Rurbanisation

Gujarat Technological University is allotted the prestigious project of Vishwakarma Yojna by the Government of Gujarat through Commissioner of Technical Education for the year 2012-13. The first phase project is aimed to study the present status and techno-economic survey of 85 villages in 25 District of the state in terms of basic and public amenities, essential commodities, other infrastructural facilities for the need of people and to prepare report on adequacy of the available resource with reference to population of the village and growth of the area. With consultation of Local revenue authorities, TDO and DDO, a plan for the village is required to be prepared for execution under this project.

For this work, Nodal Institutions have been identified from Government Engineering College and Diploma Engineering institutions. Each proposed district will be taken up by nodal institute team comprising of Nodal officer and group of students

Talking about the Rurbanisation initiative, Shri Narendrabhai Modi, our Hon'ble Chief Minister pointed, "Rurbanisation is a well thought initiative. Our quest is *Atma Gaav Ki, Suvidha Sheher Ki*. To preserve the spirit of the village is essential but why can't we invigorate them with the facilities associated with the cities?"

Rurbanisation: Planning For Growth

Almost all future population growth in the next 40 years will be absorbed by cities of the developing world, which are unprepared for such rapid expansion.

Cities have long been the engines of economic growth. Densely populated areas can be more environmentally sustainable than sprawling communities and allow for more efficient provision of services. The ideas, connections and activities in cities often generate the solutions to the problems they create.

Rurbanisation :

Summarizes the vision of Hon'ble Chief Minister of Gujarat to reduce and remove the rural-urban divide through infusion of urban patterns and services in rural systems to ensure provision of quality lifestyles and livelihood options while keeping the basic rural soul intact.

Vishwakarma Yojna

The project would provide "Design to Delivery" solution for development of villages in 'Rurban' areas.

The developmental work in villages that could be undertaken as per the need of the village in particular includes Education facilities, Health Facilities, Road network, Physical infrastructural facilities like (Water distribution, Drainage network, Solid Waste Management, Electricity network), Solar street lights, Recreation facilities, Biogas plants and other amenities.

It is proposed to frame “Vishwakarma Yojna” to provide the benefit of real work experience to engineering students and simultaneously apply their technical knowledge in the development of infrastructure in rural development. Under this scheme, the villages of “Rurban” area will be adopted by the engineering colleges under the Gujarat Technical University. The engineering colleges would study the identified villages and make the recommendations for the application of technology to achieve integrated and comprehensive development; through project preparation and management.

Objectives:

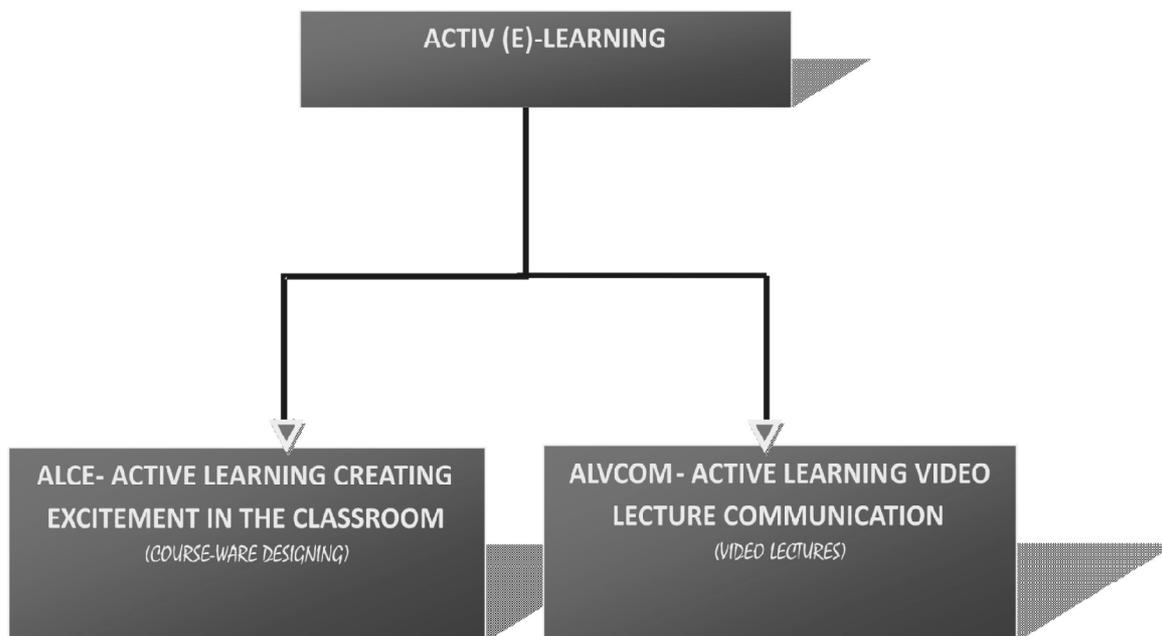
Creation of infrastructure - connectivity, civic and social infrastructure along with provision of alternative employment opportunities are the key pillars that the concept hinges on.

The work and efforts done by all the nodal officers and students is appreciated. The hard work of the students in the field has successfully landed Gujarat Technological University in the final stage of Phase-I of Vishwakarma Yojna. The project will surely help to use the talent and potential of the students in planning and implementing of Vishwakarma Yojna.

**Prepared by Dr. Indrajit Patel, Ms Jagruti Shah,
Ms Usha Banker and Ms Naheda Chhuvara**

Report on Active Learning Video Lecture Communication Series (ALU-ALVCOM)

The Programme by GTU with technical aid from BISAG



Gujarat Technological University has started the Video Lecture Telecasting series from Saturday, 1st September 2012. This venture of GTU is supported with the help of technical facility through **BISAG – Bhaskaracharya Institute for Space Applications and Geo-Informatics, Gandhinagar**.

The Vision: - To enable students of GTU affiliated colleges to have an access to video lectures from eminent faculties all over Gujarat and thus to create a platform of knowledge sharing.

The Objective: - To propagate active Learning and lectures on various subjects by well known experts and to provide a platform for communicating with all colleges, students and teachers simultaneously to disseminate ideas and information of technology domain.

GTU has invited all the professors, lecturers and faculty members, those who are interested, to participate in this project. After conducting a research in various colleges and institutes, four subjects from the **Degree course** and four from the **Diploma course** of engineering were identified wherein there was the highest rate of failure. The subjects that were identified are as follows:

For Diploma Course: Communication Skills, Engineering Drawing, Engineering Mechanics, Mathematics

For Degree Course: Computer Programming and Utilization, Calculus, Mechanics Of Solids, Engineering Graphics

All the videos are also uploaded on www.youtube.com also. Many students have been benefitted from these resources.

The Project in a nutshell:

Sr. No	Name Of the Workshops	Date	No. Of Participants	Subjects Covered Degree & Diploma
1	Active Learning- Creating Excitement In the Classroom-General	13 th May 2012	60 Faculty Members from all over Gujarat	Computer Programming and Utilization, Calculus, Mechanics of Solids, Engineering Graphics, Communication skills, Engineering Drawing, Engineering Mechanics, Mathematics
2	Active Learning- Creating Excitement In the Classroom for the Subject "Engineering Mechanics"	19 th May 2012	6 Faculty Members from all over Gujarat	Engineering Mechanics
3	Visualization of Calculus	4 th - 8 th June 2012	20 Faculty Members from all over Gujarat	Calculus
4	Pedagogy Sessions in Calculus	25 th - 29 th June 2012	70 Faculty Members from all over Gujarat	Calculus
5	Active Learning – Creating Excitement in the Classroom- "Computer Programming and Utilization"	29 th June 2012	27 Faculty Members from all over Gujarat	Computer Programming and Utilization
6	Learning Management System - Web and Mobile Application Development	3 rd July 2012	Students were invited from all over Gujarat	Computer Programming and Utilization
7	Active Learning – Creating Excitement in the Classroom' - "Engineering Graphics (B.E. 1st Year) & Engineering Drawing (Diploma 1st Year)"	9 th July 2012	61 Faculty Members from all over Gujarat	Engineering Graphics and Engineering Drawing
8	Active Learning – Creating Excitement in the Classroom- Report of workshop on Pedagogy Sessions of "Computer Programming" at Diploma Engineering	24 th -26 th July 2012	18 Faculty Members from all over Gujarat	Computer Programming

Prepared by Ms. Roma Thakur

Report on I-TAP Activities:

GTU invited almost 300 training and placement officers from various colleges/institute and HR professional from various industries for constituting the road map of I-TAP cell on 3rd December, 2011. Finally on 3th January, 2012 I-TAP a cluster of 49 Training and placement officers (TPO) spreaded all over state and from different professional institute is formed. I-TAP is formed to build the capacity of TPO at every college and provide common facilities to all the students for getting better placement in best industries. I-TAP make it possible for all TPOs to mutually help through sharing of useful information and best practises by inviting MNC and large companies to offer handsome salary package to our students. I-TAP invites experts from various industries to discuss with the students about the progress of the project and the expectation of the industries from new Engineers. I-TAP develop specialization about needs in particular sector of industries through TPO by preparing a common database format. GTU I-TAP helps students not only for placement but also provide support to the students who may be obtaining for Entrepreneurship/Higher Education and Research. Every month Core Committee members of I-TAP meet to move forward for better placement in Industry.

Prepared by Ms. Usha Banker

Report of IT Section

Development of IT Department (2011-12)

1. Online Enrolment system
2. All marks entry (Mid + Viva) via online application
3. Online grade history
4. Video messages and video tutorial on GTU website
5. ALVCOM – e – learning
6. Shifting of all results to reliable and better cloud server
7. More than one crore plus web-hits within one year
8. Online “exam material stock management” for all Institutes
9. Successful display of results of 168 exams for last year.
10. Four new domains for easy sharing :
 - a) gtuactivelearning.edu.in
 - b) gtuinstitutes.ac.in
 - c) gtupgcenters.edu.in
 - d) gtupgcourses.org.

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 since the inception of GTU.

Automation of all pre exam activities

- Automated Exam form generation (single form for one student)
- On-line Exam-form, Receipt and challan generation
- On-line Hall ticket generation
- On-line Centre list
- Generation of Students Barcodes
- Other examination reports like Zone summaries , Block reports etc..

IT based bar-coded automated systems for post exam management

- Automated examiners Allocation for assessment and their orders.
- Distribution/receipt of answer book to/from examiner at GTU.

- Answer book verification from zone as well as GTU.
- Distribution as well as receipts and other reports.

On-line result declaration with dynamic result analysis

More than 4 lakh students, 78 courses of approx 550 colleges with various analysis. From this winter-12 examination colleges will be able to download results in excel - format. Results are now on reliable and better cloud server.

Allocation of XXX@gtu.edu.in addresses to the entire GTU community

GTU has taken initiatives to allocate e-mail address to all teachers as well as students on its domain gtu.edu.in

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
- ALVCOM – e-learning.
- Video messages and video tutorial on our official web-site.
- 4 New domains for easy information sharing.
- gtuactivelearning.edu.in
- gtuinstitutes.ac.in
- gtupgcenters.edu.in
- gtupgcourses.org
- GTU is broadcast many lecture on every Saturday and Sunday on BISAG Education Channel.
- Video Library can store this type of lecture and streaming this lecture whenever student is want watch.
- Live Webcast from BISAG. Student can watch live lecture from Web. GTU is webcast live lecture from BISAG

GTU Campus Connect

For Continuous Feedback from Students and a help-site (“For the students of the students & By the students”)

GTU WEB-MAIL

GTU issues no hard-copy circulars to its 495 Colleges. These are only issued electronically on its web-site. Each and every colleges uses this web-mail account to communicate with GTU.

On-line teacher data collection and display

GTU has its own system for collection of teacher teaching subject data. Teachers have individual log-in and they can update their profiles. Data is verified by HODs of departments.

On-Line Daily attendance system

GTU collects students attendants through this portal. Every institute can upload excel file or can directly enter attendance data.

Electronics form filling for convocation as well as recruitment

GTU has its own E-application for data collection through form filling. Convocation and recruitment forms are filled through this application.

On-Line verification system for degree/diploma certificates as well as history

GTU has E-application where degree and diploma certificates can be verified on-line.

On-Line uploading of students projects/other projects and display of abstracts

GTU has it's own supporting system for uploading of projects reports of all the students. Facility to display abstract on portal is also developed.

Use of IT in competitive examinations

GTU has developed it's own IT support for competitive examination. More then 2.5 lacks students has taken this competitive examination.

On-Line Internal marks entry System

GTU has its own On-line MID/INTERNAL and VIVA marks entry portal. Institute logs-in and provide students marks. Display of this marks directly on website as soon as locking is done by institute is also facilitated.

E-Inward-Outward System

GTU has it's own E-inward/outward system by which communication is made electronically between institute and GTU.

E-accounting System

To facilitate account department GTU has

- On-line challan entry system for various payments like enrolment/ exam/ affiliation fees. etc..
- Challan are directly imported to telly for better management of account
- Examiners remuneration is also linked with exam data and reports are generated to facilitate account department
- On-line verification of exam bills raised by institute is also facilitated.

E-assessment

E-assessment of answer books for MBA course will be done by GTU these semester.

E-stock management of exam material

GTU has started E-stock management system to manage exam material to facilitate institute for better management of exam material supply.

E-Storage of answer book

- Answer book storage at GTU is managed by dynamic software for better retrieval of answer books
- Automated allocation of LOTS assessed answer book bundles to rack location through 4X4 matrix.
- Verification of placement of assessed answer book bundles to it's proper place.
- Easy retrieval of answer books with linked database for rechecking as well as reassessment.

Prepared by Prof. Ashesh Desai

Appendix 20

Report on Affiliation of Educational Institutional and Staff Endorsement work

Affiliation and Staff Endorsement Department was started in September, 2011. The following staff is working in this department :

- In charge Officer on Special Duty & Chief Account Officer,
- One Admin Cum Account Officer,
- Three Administrative Assistants,
- One Data Entry Operator,
- One Office Assistant.

This department was started for the purpose of the endorsement of faculty members and affiliation of the institutions/ colleges which is now known as a full-fledged Affiliation-Endorsement Department.

Affiliation:

This Department is dealing with the whole process of affiliation of the institutions such as issue of affiliation letters, issue orders for LIC/LAEC (For starting up new institutions) as well as for the Academic Inspection which is mainly done for improvement of academic activities going on in the affiliating institutions. All the reports of the LIC as well as Academic Inspection are checked by this department and deficiency reports are prepared to send to the institutions/ colleges to improve the quality of the teaching for both Theory work as well as Practical session.

Almost all the technical institutions in Gujarat State which mainly offer technical programmes like Degree Engineering, Diploma Engineering, Pharmacy, Management and Computer Application are affiliated to Gujarat Technological University. A total of 580 institutions are affiliated to GTU.

The University has started the Affiliation process for Bachelor of Architecture, and the integrated courses like Master in Applied Management, Master of Technological Management from this academic year 2012-13.

Glance at Affiliating Institutions: (2012-13 Session)

Sr. No.	Name of programme	Affiliating institutions/colleges
1	Degree Engineering	100
2	Master of Engineering	45
2	Diploma Engineering	104
3	Diploma Pharmacy	9
4	B. Pharmacy	77
5	M. Pharmacy	56
6	MBA	115
7	MCA	67
8	Bachelor of Architecture	2
9	MAM/ MTM	2
10	PDDC	3

Endorsement:

The main function of this department is to endorse the staff selected by the affiliated Colleges/Institutions for the process of appointment of the staff. For the process of endorsement, the institutions concerned are required to publish two advertisements: One in Gujarati language Newspaper and the other in an English language Newspaper. The Selection Committee consists of two experts, two Management Representative and one Nominee of the Vice Chancellor. The selection committee is supposed to select candidates, and these candidates are considered for endorsement by the university as per the norms.

All the files received till academic year 2011-12 for each programme like Engineering, Pharmacy, Diploma, MBA, and MCA have been cleared. Endorsement is given to all the faculty members/ candidates who were qualified and experienced as per AICTE norms.

After the speedy and timely completion of the endorsement of all new selectees during the year 2012-13, the cases of the old faculties approved by the previous University concerned in the different Institutions have been received from the institutions and all such cases are under process for confirmation.

Prepared by Mr. Ramsinh H. Rajput

Gujarat Technological Universitys Infrastructure

Gujarat Technological University is administratively functioning at present at the temporary allotted premises in the ACPC Building, L.D. College of Engg. Campus, Navrangpura, Ahmedabad.

- 1.0 The Government of Gujarat has allotted the land of approx. 23.11 acres at Vishwakarma Govt. Engg. College Campus, Chandkheda, Ahmedabad.
- 2.0 At present , construction of building for administration has been completed. This building is having 10,000 sq.mts. of built up area constructed in 3 wings. The Central Wing is 5 storied and Side Wings are 4 storied. About 100 chambers have been constructed in the building for its officers and staff. Four conference rooms , a meeting and committee room, an auditorium hall, canteen, cafeteria are constructed. IT facilities like : CCTV camera, network, video conferencing, communication, etc. are also to be established within a short period.
- 3.0 At the Chandkheda campus, the Government of Gujarat has sanctioned the following new building works in the budget for the year 2012-13.
 - 3.1 Post Graduate Building for GTU. In this building 12 PG Research Courses are to be set up in the coming year. Rs. 26.08 crores are sanctioned in the budget. This building will be 6 storied with 2 PG course on each floor. The building would have a built up area of about 20,000 sq.mts. Detailed Plans are under preparation at present. Each floor will have four class rooms, two admin offices, two research assistant rooms, two lab rooms , four professor's rooms, two assistant professor's rooms, director's room, seminar room, computer room, library room with reading room, store room and other common utilities. This building is likely to be completed before March-2014.
 - 3.2 Laboratories and class rooms building at Chandkheda. Rs. 13.66 crore is sanctioned in the budget. The building will have a built up area of about 7000 sq.m. having lab for Ph.D students of IT system and network security, wireless & mobile computing, lab for Ph.D Students of pharmacy. The building will be of eight stories. The building will have multimedia lab, incubation center, solar power farm, wafer fabrication & PCB fabrication lab. This building is likely to be completed before March-2014.
 - 3.3 Rs. 1.00 crore is sanctioned in the budget for Learning Resource Center Building at the Chandkheda Campus. This building will have a built up area of about 700 sqm. This building will have library room, reading room, central computing room, central server room, data room, audio-visual room, assistant librarian room, catalogue room and librarian room with other common utilities. This building is likely to be completed before December, 2013.
 - 3.4 Building for staff accommodation of GTU at Chandkheda. Rs. 15.97 crores is sanctioned in the budget. This building will have 10 stories with 4 unit quarters at each floor and a total of 40 residential quarters. Each quarter shall have 3 bed rooms, drawing and dining room with kitchen. Total built up area shall be above 7715 sq. mts.

These quarters will be built for the officers/staff of the University, Professors and Faculties. This building is likely to be completed before December, 2013.

3.5 Residential bungalow for the University's Vice Chancellor. This work is sanctioned in the budget at an estimated cost of Rs. 1 crore. Plans and estimates are prepared and are under sanction. This bungalow will have a built up area of about 428 sq.mts with all residential facilities suitable to Vice Chancellor. This bungalow is likely to be completed before December, 2013.

4.0 GTU Satellite campus at Sector-26, Gandhinagar.

4.1 Recently, the Government of Gujarat has allotted to GTU the building vacated by Gujarat National Law University at Sector-26, Electronics Estate, G.I.D.C., Gandhinagar for academic purpose. The plot area of this campus is 4185 sq. mts., The built up area of the building is 4725 sq. mts. The building is having 11 class rooms, 1 conference hall of about 335 sq. mts. at ground floor and 1 conference hall of about 46 sq. mts. On the first floor. The Library Hall is having area of about 335 sq. mts. The chambers for faculties, professors, Vice Chancellor, Registrar and their staff is also available. This is a very good building for teaching purpose. GTU has already shifted the PG Courses for VLSI & Embedded System presently running at VGEC Campus, Chandkheda to this Gandhinagar Campus. IT System and Network Security, Wireless & Mobile Computing PG Courses presently running at BISAG, Gandhinagar is to be shifted to the Gandhinagar Campus in the near future. About 300 students will be taking their P.G. education in a short while at this Campus.

5.0 In addition to Chandkheda and Gandhinagar Campus, the Government of Gujarat is going to allot the land of about 130 acres situated Sargasan Chowkdi and in the new Sector 3 A, B/h. R.T.O. Office at Gandhinagar. The proposal to allot this land is under consideration by the Government of Gujarat and the University is expecting the same in a short while. After the availability of this land, the University will have a total of 150 acres of land making it possible for GTU to get the affiliation with the University Grant Commission (UGC) under the Clause 12-B of UGC. The University has submitted the next 5 years' plan to UGC for the Sargasan Campus at Gandhinagar. In this Campus, it is proposed to construct buildings like Central Computing facility, School of Engineering with separate buildings for Civil, Mechanical, Electrical, Electronics & Communication, Computer Engineering & Applications. Building for School of Pharmacy, School of Business Study, Gymnasium, Swimming Pool, Sports facility, hostel for boys and girls including international hostel facility, Guest house for visiting scholars, health centre, training and placement centre, day care centre, infrastructural facilities like internal roads, boundary wall, entrance, building signage, electrical water supply facility, sewerage lines, plantation, landscaping etc.

Prepared by Mr. Dhruvkumar Bhadrakia

Report of Exam Section

GTU conducted the summer examinations for nearly 3 lac students from 8th May 2012 and completed the same by mid-June 2012. During these exams the first batch (2008-2012) Bachelor of Engineering and Bachelor of Pharmacy students passed out in the month of June 2012. In the interest of failed students of the final semester of all courses, the university conducted the remedial exams in the month of October 2012 and the results were declared in the month of November 2012. Due to this, along with the successful students of main exams, the students who passed in the remedial exams shall also be benefited to get the Degrees in the Second Convocation of GTU which will be held on the 19th January 2013. Due to general election in the State of Gujarat during December 2012, GTU had taken all care to conduct the exams within the shortest duration of nearly 30 days in comparison to 45-50 days in the earlier semester exams.

New Format of Answer book

From winter exams-2012, GTU had introduced a new type of answer book wherein the examiner is supposed to enter the marks in ICR as well as OMR formats in addition to the normal method of entry of marks. The ICR & OMR based entry of marks will be scanned and thus, the result will be processed quickly and declared in the shortest duration. The movement of the answer books will be restricted which will increase the security of the scripts.

Introduction of E-assessment System

GTU has introduced E-assessment in MBA Semester-I exam as a pilot project and if found successful, this system will be introduced gradually for other courses too. In E-assessment system the examiners will be delivered masked answer books electronically directly from the server and the examiners can download the scripts using their personal user-IDs and passwords and they can carry out the assessment work sitting at their homes or in the Institute in front of computer connected with the normal internet connectivity. Due to the introduction of new technology in assessment work, if desired, the coursewise / branchwise results can be declared as and when the assessment of a particular branch is over. Also the delay will be avoided as the Controller of Exams can review the Assessor and he may assign the work to some other examiner if it is delayed. This will also help in declaring the result of reassessment or rechecking faster as the time consumed in pulling out of the answer books will be saved since the soft copy of the scripts would be stored in the secured server. GTU is also planning to introduce assessed answer book viewing to students on chargeable basis. If this is introduced, the students can view the answer books and ultimately the RTI cases will be reduced drastically.

Storage of answer books and result processing

GTU has developed its own in-house method of stacking answer books which will help in locating each and every answer book systematically and entry of marks in more secured manner.

Equivalency and the Award of Degree

GTU vide its Notification:1/2012 Dated : 13/04/2012 has formulated an equation to find equivalency between CPI/CGPA which is as follows:

Percentage Marks = (CPI/CGPA-0.5) X10.

CPI/CGPA Equivalent Class shall be as follows:

Below 5.5: Pass class

5.5 & above: Second class

6.5 & above: First class

7.1 & above: First class with distinction

Award of Degree

For all courses, where the duration of the course was more than 2 years, the Degree shall be awarded to the students on the basis of CGPA (Cumulative Grade Point Average) of the last four semester's performance in the exams.

In case of the courses where the duration is of two years, the degree shall be conferred to students based upon CPI (Cumulative Performance Index) considering all the four semesters performance.

Continuous Evaluation Process of marks(CEP): Internal evaluation and its effect on the result :

The Institutes/ Colleges shall conduct internal evaluation of all semesters (odd or even semester terms) and submit the marks of continuous evaluation of those students who have cleared the backlogs at the Institutes to the University through the University's portal as per the dead line declared by the university at the end of every semester, so that the results for such students may be updated along with the University results. The marks submitted online shall be made available for viewing by the students so that if there are any queries, the students can approach the Institute for correction before the final online submission by the Institute and declaration of the results by the University. The marks submitted after declaration of the results by the University shall be considered for updating only in the next semester's results.

**Prepared by Dr. G P Vadodaria, Controller of Examination,
Gujarat Technological University**

Report of Extra-Curricular Activities

1. Youth Festival

University had organized & finished its second Youth Festival “**XITIJ 2012**” in the month of September - October 2012. Total 23 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) Folk Orchestra
2	Dance	Folk/Tribal Dance Classical Dance (Indian)
3	Literature	Quiz Elocution Debate
4	Theatre	One act play Skits Mime Mimicry
5	Fine Arts	On the Spot Painting Collage Poster Making Rangoli Clay Modeling Cartooning

For Diploma Institutes:

1	Diploma Institutes – Inter zonal	Tolani Foundation Gandhidham Polytechnic, Adipur, Kutch	300	16	22-23-24 Sept 2012
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Sr.No	Level of Competition	Name of host institute	No. of Participants	No. of Participating Institutes	Date of competition
1	Ahmedabad Zone	C U Shah College of Engineering, Wadhwan	765	26	28-29-30 Sept 2012
2	Gandhinagar Zone	Saraswati Institute of Engineering & Management, Rajpur	550	19	04-05-06 Octo 2012
3	VV Nagar Zone	Parul Institute of Engineering & Technology, Limda	775	27	21-22-23 Sept 2012
4	Rajkot Zone	Marwadi Education Foundation Faculty of Engineering, Rajkot	550	26	18-19-20 Sept 2012
5	Surat Zone	Sarvajanik Colleg of Engineering & Technology, Surat	600	16	01-02-03 Octo 2012
6	Inter Zonal	L J Institute of Pharmacy, Ahmedabad	1065	114	11-12-13 Octo 2012

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.

GTU has participated in 28th West Zone Inter University Youth Festival -2012 from 27th December to 31st December – 2012, organised by Association of Indian Universities at Veer Narmad South Gujarat University, Surat. The University has performed excellently well in the youth festival by winning Mime & Debate Competition. Harshal Mehta secured second position in Mimicry. Teams of mime, debate & mimicry will participate in National Youth Festival at Kalyani University, West Bengal in the month of February. The University has finished the year with very positive note & gracefully welcomes year 2013

1. **Blood Donation & Thalassemia Awareness & Testing Program:**

Indian Red Cross Society, Gujarat State appreciated the effort of Gujarat Technological University for excellent contribution in the area of Blood Donation & effective

implementation of Thalassemia Awareness & Testing Program. GTU has received two Awards from Indian Red Cross Society in the year 2011 & 2010 respectively.

2. Sports

Total 17 sports events are included in the 3rd Sports Festival "SPIRIT 20112". Sports Festival is organized at zonal level in the first stage i.e. Ahmedabad, Gandhinagar, Surat, VV Nagar & Rajkot zone. More than 10000 students participated in these events.

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

3. National Service Scheme:

2000 seats have been allotted to GTU by the Central & State Government and the University Advisory Committee has been formed for the smooth function of the NSS activities. Approximately 2000 more vacancy will be allotted to GTU this year & the process is in progress.

4. 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 3600. Five NCC cadets have participated in Republic Day Parade 2012 at New Delhi. Four of them were selected & participated in Inter National Youth Exchange Programme.

5. Sainik Welfare Fund:

7th December is celebrated as **Sainik Welfare Flag Day**. Fund is raised by the nation to help widow of Martyrs of Indian Armed forces. GTU has contributed in Sainik Welfare Fund & total collection of Rs. 1,50,278/- has been made.

1st Award Function – Co-curricular Activities

University has organized its First Award Function – Co-curricular Activities like NCC, Social activities, Sports & Cultural Activities on 7th August 2012. Dignitaries from various fields were invited for the function to motivate students.

- **AIU Sport Participation:**

Team member of GTU team had participated in West Zone / National sports tournament by Association of Indian University during July 2011 to June 2012 & July 2010 to June 2011 have to remain present in the Award Function. Details are given below.

- **'XITIJ' - YOUTH FESTIVAL:**

Team members of GTU Youth Festival Team participated in West Zone Inter University Youth Festival by Association of Indian University at M L Sukhadia University, Udaipur during month of December 2012 were felicitated in the Award Function.

- **GTU Social Activities:**

The Principal/Director, Faculty Coordinator and Student Coordinators of various colleges

were felicitated in the Award Function for their outstanding contribution in the area of Blood Donation & Effective Implementation of Thalassemia Awareness & Testing Programme.

ã **National Cadet Corps:**

NCC Cadets who represented GTU in Republic Day Parade (RDC) and Cadets who participated in “Guard of Honor” ceremony during GTU’s first convocation function were felicitated in the Award Function.



Prepare by Captain Dr. Chaitanya S Sanghvi

Report on GTU's Achievements

I. AWARDS WON BY GUJARAT TECHNOLOGICAL UNIVERSITY

i) AIMS International Innovative University Award

Looking to the multi-faceted activities of Gujarat Technological University (GTU) in improving the technical education in the State of Gujarat, the Association of Indian Management Scholars (AIMS) International nominated GTU for **the AIMS International Innovative University Award** and GTU received the Award at the second day of Tenth AIMS International conference on Management held at Indian Institute of Management, Bangalore on 7th January 2013.

ii) Digital Learning WES – 2011 Award

On April 14, 2011, GTU won the best jury Award under in category of Best Interface between Academia – Industry at the World Education Summit 2011, New Delhi for its GTU Innovation Council project. 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.

iii) GESIA Award – 2011

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

iv) Sherdil 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.

v) 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.

vi) 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.

vi) 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 the 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 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 Award seeks to acknowledge and highlight the achievements of a University in bringing new and innovative endeavors for the benefit of the Higher Education community.

vii) Manthan Award South Asia – 2009

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 had conducted an online entrance test. 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 counseling through online allocation of college seats for admission. GCET 2009 is conducted by GTU for admissions to Masters of Business Administration (MBA) and Masters of Computer Application Gujarat (MCA) courses in all institutions throughout Gujarat. About 25,000 students appear in the entrance test at 25 locations in Gujarat. A student can take the test a second time, if he/ she wants, with the best of the two scores being considered for admission.

It is noteworthy that within three years of start of operations in August 2008, and just within three years, the University has bagged these awards.

viii) AIMS International Innovative University Award

The tenth conference of AIMS (Association of Indian Management Scholars) International was held at IIM, Bangalore. The awards function was held in the presence of the Directors of many IIMs, including the Director of IIM, Bangalore. Shri Om Prakash Gupta, Professor of Management at University of Houston, is the President of AIMS. He had previously established the Management program at Nirma University, Ahmedabad and he was a Professor at IIM, Ahmedabad for more than two decades. Professor Gupta read the citation and delivered the award.

Gujarat Technological University is a relatively new technology University, which caters to the entire field of engineering, pharmacy, business studies (MBA programs) and Computer Applications (MCA) in Gujarat. All the Colleges in the above fields in Gujarat have been affiliated to this University by the Government

of Gujarat. Today the University has about 4, 00,000 students, a large number of Master's programs and a robust doctoral program. It has about 500 Colleges affiliated to it. It is today the largest University in Gujarat.

Looking to the multi-faceted activities and innovative contributions of Gujarat Technological University (GTU) in improving the technical and management education in the State of Gujarat, the Association of Indian Management Scholars (AIMS) International nominated GTU for **the AIMS International Innovative University Award**.

While accepting the Award, Dr Akshai Aggarwal said that GTU is working to become a University, which can attract students and scholars from all over the world. He said that starting from where we are, we have to chart our own path towards excellence. While the goal for GTU is the same as the goals of the best of the Universities of the world, every University begins its journey from where it is situated at a particular time and space. Hence every University, which aims at excellence has to find its own innovative path. Then he talked about the various initiatives that GTU has taken and about the joint research projects with Kellogg School of Business and with a German University. He also discussed about the patents that the students and the faculty members of Colleges, affiliated with GTU had filed during this year and said that GTU expects the number to reach 100 by the end of the academic year.

II. PATENTS FILED BY THE STUDENTS & FACULTIES OF GTU AFFILIATED COLLEGES :

Sixty Six applications for patents have been filed by faculty members and students of eleven colleges of pharmacy and engineering affiliated to the University. Details are furnished in detailed report at www.gtu.ac.in.



III. BOOK PUBLICATIONS BY FACULTIES OF GTU AFFILIATED

Two hundred and thirty four books have been published by faculty members of colleges affiliated the university. Details are furnished in detailed report at www.gtu.ac.in.

IV. RESEARCH GRANTS RECEIVED BY FACULTIES OF GTU AFFILIATED COLLEGES

Fifty five projects of faculty members of various colleges have been granted projects by leading institutions such as AICTE, Commissionerate of Technical Education, Gujarat State, Ministry of Science and Technology, Government of India, New Delhi, GUJCOST, NIF, ICMR, Royal Society of Chemistry etc. Details of projects are furnished at www.gtu.ac.in.

