

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)
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**Center for Technology Education, Public Policy and Universities of the
21st Century
(GTU-CeTEPU-21)**

**Report on Designing the Structure of Universities of the 21st Century
- GTU Research project**

Most of the larger 631 Universities in India are essentially based on the structure devised by East India Company for Universities of Calcutta, Madras and Bombay¹ (1957), in response to the Wood's note of 1854. None of our Universities has been able to provide world-class education to its students. After 156 years of working with the system, it is very clear that the existing system is unable to provide as good an education to the young in India as the top-most 100 Universities of the world are able to do.

Designing the Structure of Technology Universities (DSTU) - a GTU Research project: A research project on **Designing the Structure of a Technology University (DSTU)** has been taken up by 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)'.

Padmabhushan Dr. P.V. Indiresan, Former Director – IIT Madras appreciated GTU for taking leadership for conducting the Research Project of this kind for the first time in the country.

The aim of the research project is to improve the current set up of India's universities and to create a road map for having universities, which offer the best of learning environment to the students and the faculty members.

A large majority of students (estimated at about 90%), working for obtaining a University degree, are with affiliating type Universities. The central institutions like IITs, IIMs, NITs and IIITs jointly with residential Universities like M. S. University of Baroda and deemed Universities take care of the remaining 10% of University students in India. Hence even though the research project has a focus on affiliating type Universities, some of its findings may be of some use to others also.

In developing countries like India, Egypt and China, middle-class parents push their young to opt for studies in the fields of engineering and medicine. The result is that very few students choose studies in other fields of learning as their first choice, except for a few top-ranking institutions. This has resulted in the winding down of work in the fields of pure science and social science. It is also reflected in the ranking of the Universities, where among the first 400 Universities of the world, the only institutions from India happen to be some of the IITs. None of the other or our older Universities has been able to reach the rank of the first 400 Universities of the world. This research project has named itself as DSTU, only because it has been initiated by a Technology University.

¹The other prominent types are (i) IITs, established on the MIT model, according to the recommendation of the Sarkar Committee (1946) to the Viceroy's Council (ii) Agricultural Universities of 1960s, established on the Land-Grant University model

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The project is studying the work of GeorgiaTech Center for 21st century Universities (C21U)², set up in 2011 and Shanghai Jiao Tong University's Center for World-Class Universities³, set up in 1985. The research project is studying the technology Universities in India and other Universities like Norwegian University of Science & Technology, MIT and Georgia Tech, USA, Imperial College London, as also the structure of the National University of Educational Planning and Administration, New Delhi and the London School of Economics.

The first step for the research project on DSTU was taken on 27th April 2011, when at a meeting of some of the Faculty members, interested in the area of organizational structures, the GTU Forum for **Human Resource and Organizational Structures** was set up. A 2-page Discussion Paper was developed for GTU by Professor Satinder Kumar and DrShweta Patel.

I. On **12th May, 2012** the first meeting of the core group was organized to introduce the Research project on the Design of the Structure of Technology Universities. All the members of the proposed GTU SKILLS COUNCIL for HUMAN RESOURCE STUDIES & ORGANIZATIONAL STRUCTURES (GTU- CHRSOS) and some faculty members of management participated in the meeting under the chairmanship of Hon. Vice Chancellor Dr. Akshai Aggarwal. Dr. Aggarwal initiated the discussion by explaining the concept of DSTU. He said that there were major issues being faced by the Universities all over the world and it was clear that the Universities will have to change a great deal, if the challenges of the 21st century are to be faced squarely. He added, ``In India, the challenges are greater since we have to offer higher education of the same quality, as is available to the young in the developed world and in the best Universities of China, Taiwan, Singapore, Malaysia etc. At the same time, we cannot copy any other country since our journey has to begin from where we are today.`` Even though the design was to be for an affiliating type of technological University, it may turn out to be applicable to the other large comprehensive Universities of India. After a detailed discussion, it was resolved to constitute a Core Committee for this research project. (The Report was published on 15th May, 2012 at: <http://www.gtu.ac.in/circulars/12May/DSTU%20meeting.pdf>)

The next meeting for this project was organized on **2nd June, 2012**. In that meeting, the committee members devised a strategy for conducting the DSTU research at different campuses of GTU and distributed the preliminary work in the following areas:

- Ancient University of India by Dr. Rajesh Khajuria, Director, SMJV's CKSVIM, Vadodara
- Understanding the other Technological Universities of India by Dr. Rajesh Khajuria, Director, SMJV's CKSVIM, Vadodara
- Structure of IIT Khargpur by Dr. K.N. Sheth, Director, ShriSaraswati Group of Colleges, near Ahmedabad
- Asian Universities by Dr PGK Murthy, Director, Parul Institute of Management, Waghodia
- Global Universities by Dr. Trupti Almoula, In charge Director, Narmada College of Management, Bharuch

²The first Director is the Head, Department of Computer Science at GeorgiaTech.

³The first Director is the Head of Department of Chemical Engineering at SJTU.

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On the basis of these studies and the current structure of Gujarat Technological University, the Committee members decided to prepare a draft of the proposed structure of the technological University for the next meeting.

At the meeting of **6th June, 2012** all the committee members discussed the current structure, various academic and administrative functions of GTU and prepared the proposed structure of GTU head office. They also examined and prepared proposed structure for the GTU regional centers, schools and various GTU wings.

During this meeting, the committee members proposed to invite other technological Universities` Vice-Chancellors and registrars so that the research project could get inputs from the other technological Universities of India. The date for the second plenary meeting was decided as 16th June, 2012.

On 9th June, 2012, all the committee members prepared the schedule for the meeting of 16th June, 2012. They also prepared a presentation on a draft of the organizational chart for GTU`s development.

II. At the meeting of **16th June, 2012**, 40 Directors and Principals of management and engineering college participated in the meeting. **Padmabhushan Dr. P.V. Indiresan**, former Director –IIT Madras, Dr. A.K. Malik, Registrar of South Asia University, New Delhi participated in the meeting. After the inauguration Dr. Akshai Aggarwal talked about the vision of DSTU. Dr. P.V. Indiresan drew parallel from Vedas through various Shlokas, which signified the importance of knowledge, skills and human development for the benefit of society at large. He appreciated GTU for taking leadership for conducting the Research Project of DSTU for the first time in the country. He advised GTU to develop a vision for the next 50 – 100 years. He said that GTU should aim at becoming a world class University like **Georgia Tech, USA** surpassing even the best institutions of the country like IITs (and other universities), where he had taught for 40 years. ``But,`` said he, ``do not try to copy an IIT.`` In session-I, Dr. Ajit Rana presented the vision for the Post graduate center for Technological Education, Public Policy and Universities of 21st century. Prof. Bharat Dalal presented ideas about the Post-graduate Center for Governance Systems in Businesses, Industries, Universities, Hospitals, NGOs and Governments. Prof. Trupti moula shared the vision of GTU- CHRSOS.



Dr. A.K. Malik talked about his experiences in developing the structure of **South Asia University (SAU)**, as its founder Registrar. He said, `` The South Asia University is developed and funded by **SAARC Countries**. Therefore, the admissions are at Asia level, based on the quota reserved for each country. Currently, the SAU offers 6 - 7 PG Programs in Humanities. It plans to offer undergraduate programs in the near future.`` He emphasized the need for developing an excellent library with online and print media books and journals from the whole of the world.

Detailed discussions were held throughout the session. The presentations were made by Core Committee Members on the strategy adopted by them for the DSTU research. The Report of the meeting of 16th June was published at: http://www.gtu.ac.in/circulars/12June/report_26612.pdf

A post- 16th June, discussion meeting of the Core Committee was held on **7th July, 2012** at Ahmedabad Management Association, Ahmedabad. Hon. Vice chancellor said that the aim should be to publish a book on this research project. As a first step, it was decided that the Committee members would prepare the material according to the allocation in the meeting of 2nd June 2012.

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III. At the 18th August meeting, **Dr. H. Maheshappa, Hon'ble Vice Chancellor, Visvesvaraya Technological University, Karnataka, Dr. M.L. Ranga Hon.ble Vice Chancellor Guru Jambheshwer University of Science & Technology, Haryana, Prof. V.K.Kathal, Director, Academic Staff College, Dr. Harisingh Gour University, Sagar and Dr. A.K.Malik Registrar, South Asia University** were present and there were interesting presentations by all the distinguished participants. (The Report of the meeting of 18th August was published at:

<http://www.gtu.ac.in/circulars/12Aug/28082012.pdf>)

IV. At the 29th September 2012 meeting, **Dr Akshai Aggarwal** gave a brief idea about the best universities in Asia. He said that a university, while conveying the knowledge to the next generation, must critically examine it for its relevance and truth and it must contribute to generation of new knowledge. He described GTU's project on Active Learning and Creating Excitement in Classes, Laboratories and Workshops (ALCE). He said, " Under ALCE, it is proposed to develop excellent courseware through joint efforts. Under Active Learning Video lecture Communication (ALVCOM) – a telecast program of lectures has been started with technical support from BISAG." Dr. Aggarwal also talked about the 'Networking of Colleges for joint research.' **Kotler's Incubator on Ayurvedic Medicines** is one such project, taken up under the World Marketing Summit projects. He said that on 16th August 2012, GTU had joined two research projects, for which the Chief Investigators are Professors **Dr. Friedrich Augenstein** and **Dr. Ramesh Shah** from DHBW. For promoting joint research, the GTU Board for Mobile Computing and Wireless Technologies had issued a Request for Collaborative Research Proposals (RCRP) in the area of Mobile Computing, Networking and Applications (MNA). Subsequent to the address made by **Dr. Akshai Aggarwal**, the core committee members were invited to give the presentations on DSTU project.



In the post Lunch Session **Dr. Anirudh Pratap Singh, Dean – Research and Consultancy and Director – Punjab Technological University Campus** made very systematic presentation on the following aspects:

- Brief Introduction of PTU
- Regular Academic and Distance
- Education Programs
- Examination system of PTU,
- Constituent college system and,
- Finance system in particular.

While concluding **Dr. A. P. Singh** gave the information about Breaking of Language Barrier project of PTU. He said that all the developed countries used their native language in higher education. The second important interesting matter that **Dr. A. P. Singh** discussed was about "PITs" i.e. Punjab Institutes of Technology, which were designed to be similar to IITs. The University has plans to establish the first PIT

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at Kapurthala (only for PG Programs) and three other PITs for Under-Graduate programs at Mansa, Nandgarh and Rajpura.

At the end Dr. Kamal Taori, former IAS officer and Ms. Irma Marla, from Germany, made presentations. The Report of the meeting of 29th September was published at: <http://www.gtu.ac.in/circulars/12Oct/15102012.pdf>.

V. On **24th November, 2012**, another plenary meeting on DSTU was organized at Gujarat Technological University at GTU, Gandhinagar Campus. More than 45 Directors and Principals of



Management and Engineering colleges, senior faculty members and GTU officials participated in the meeting of this research project. **Dr. K. L. Chopra (Padmashri)**, Former Professor, IITD & Former Director, Indian Institute of Technology, Kharagpur, **Dr. Akshai Aggarwal**, Honorable Vice Chancellor of Gujarat Technological University, **Dr. D. S. Chauhan**, Vice Chancellor, Uttarakhand University, Dehradun, **Dr. Premalatha Rajan**, Director, Academic Courses, Anna University, Chennai and **Dr. H. P. Khincha**, former Vice Chancellor of Vishwasaraya Technological University, the

Technological University of Karnataka, Principals and other invited guests and core committee members, DSTU core committee member were present in the meeting.

While giving a brief account of today's environment Dr. Aggarwal stated that after 2000, India has started being counted along with China as the upcoming countries. He said, "Our industries are able to compete with the world at least within India very successfully now." In Gujarat, during the last decade, the number of seats for technology education has been increased eightfold. But our technology teachers have no practical experience and not ready to be evaluated by their peers for research or by students for their teaching skills. Dr. Aggarwal gave the report on Research output on China and India.

Dr. Akshai Aggarwal stated that GTU and its Colleges jointly perform Quality Assurance in studies, teaching and research. Dr. Akshai Aggarwal briefly stated the measures taken in creating joint networking systems among Colleges.

Prof. K. L. Chopra (Padmashri), Former Professor, IITD & Former Director, Indian Institute of Technology, Kharagpur gave an address on Technical Education in knowledge era. He then stated that the educational models go on changing as rightly stated by Dr. Aggarwal. Guru-Shishya Parampara is augmented with Data and Skill-based, Information-based (Broadcast Teaching Model) and Knowledge-based (Outcome –based) models. He further said that to create, innovate or discover something hitherto unknown which will enhance our knowledge of nature in its various manifestations, and/or which will benefit the society in some ways "Any innovation or creativity of knowledge is good research, neither low or high, nor basic or applied".

In Afternoon Session **Dr. D. S. Chauhan**, Vice Chancellor, Uttarakhand University, Dehradun, said that Dr. Chopra presented input on favorable Governance. When the universities are funded by the Government, it becomes very difficult to design the structure. Dr. D. S. Chauhan said that when he joined as Vice Chancellor, no single person was Ph.D but more than 730 teachers were B.Tech in 19 colleges. It was difficult in the beginning for him to understand the ordinance of UP Technological University.

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Dr. PremlathaRajan, Director, Academic Courses, Anna University, Chennai, started addressing the session by introducing the Anna University which includes:

Established on 4th September 1978 as a unitary type of University for Engineering, Technology and Applied Sciences.

Currently there are 8 Faculties, 30 Departments and 46 Centres on the campus.

Over 550 engineering colleges in Tamil Nadu State are affiliated to Anna University making it the largest technological University.

Dr. Premlatha gave a brief account of broad research areas covered by Anna University, Tamilnadu. She also gave details of centers promoting the research in the University.

Dr. H. P. Khincha, Former Vice Chancellor of Vishwasaraya Technological University, Technological University of Karnataka State, said that there are two critical points for consideration – the Vision of the University and the Mission of the University. He gave the example of the Vision and Mission of the Harvard University.

In session 3 On behalf of DSTU Core Committee, the presentation was made by Dr. Rajesh Khajuria. On account of shortage of time, Dr. Khajuria made efforts to be as brief as possible. He stated that following are the objectives of DSTU research project, prevailing structure of GTU, and proposed structure of GTU. At the end Dr. TruptiAlmoula gave vote of thanks.

(The report of the event is available at: http://www.gtu.ac.in/circulars/12DEC/20121124_Report.pdf)

VI. The next plenary meeting on DSTU was organized by Gujarat Technological University on Saturday, 18th May 2013 at ParyavaranMandir, Naroda, Sardar Patel Ring Road, Ahmedabad. More than 70 Directors and Principals of Management and Engineering colleges, senior faculty members and GTU officials participated in this meeting. 10 Vice Chancellors / Pro- Vice Chancellors / Registrars from various universities across the country were also present. Dr Akshai Aggarwal, GTU's Vice-Chancellor welcomed all, introduced DSTU and described GTU's own work for offering a high quality learning environment to its students.

He explained the definition and characteristics of a World Class University taking reference from "Centre for World-Class Universities (CWCU) at Shanghai Jiao Tong University's (SJTU) -a strategic research unit of the Chinese Ministry of Education (<http://gse.sjtu.edu.cn/EN/centers.htm>)

He quoted the 9-point agenda developed by Aghion, Dewatripont et al. 2010 for a University to be more competitive and autonomous.

He shared that GTU had been working on the challenge of creating a team of Students, Researchers, and Faculty members, which could work collaboratively even though they might be working in different Colleges. "GTU," he said, "is now working for leadership in learning outcomes, research and industrial collaboration; relevant research and development of systematic study and creating a ranking system. GTU has created networking of Colleges for jointly improving the quality of learning processes through ALCE (Active Learning and Creating Excitement in classes, laboratories and workshops) and ALVCOM (Active Learning Video lecture Communication) – a telecast program started with technical support from BISAG, for preparing Courseware through joint efforts (Design Your Courseware competition for students) , for doing Joint Research projects etc.

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Prof. P. B. Sharma, Vice Chancellor of Delhi Technological University, gave examples of premier technological Institutions of India and he very appreciatively said that GTU is one of them! He said that almost 90% of India's higher technical education (degree level onwards) was under private ownership. But he said, "The underlying assumption for bringing private ownership in technical education was that it would promote quality and relevance much better than the Institutions under the public ownership system. This objective has however not been realized to a large extent."

He suggested some major attributes and structural dimensions of Technological University in 21st Century and suggested Five Vital Connects for a Technological University in 21st Century. He emphasised that research cannot flourish without effective linkages and mechanisms for collaboration and cooperation between Universities and Institutions in India and at the global levels.

His Excellency Mr. Ndubuisi Vitus Amaku, The High Commissioner of Nigeria, Prof. P.P.Mathur, Vice Chancellor of Kalinga Institute of Industrial Technology, Prof. S. Narayanan, Pro-Vice Chancellor VIT University and Mr. Harishkumar Sharma, Registrar, MaharshiMarkendeshwar University and many Directors of GTU Colleges, industrialists from Naroda engineering estate and others also participated in the event. A detailed report of the plenary session was published at:



http://www.gtu.ac.in/circulars/13June/Report%20DSTU_18052013.pdf.

A Report on the meetings, described above was published at http://www.gtu.ac.in/circulars/13Dec/DSTU_AGTU.pdf.

On the basis of this study the core committee members of DSTU have prepared the proposed structure of GTU Regional Centers, Schools and various GTU wings. And in this meeting of DSTU, a compile book of DSTU research work was presented to Dr. Akshai Aggarwal by DSTU core committee member.



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Since the work for DSTU was applicable for the other affiliating type universities also, it was decided to organize a seminar for all the Universities in India. At this seminar of 8th-9th of January 2014, representatives from 108 universities, including 44 Vice-Chancellors and many from the Research, Development and Innovation wings of industries were present. A brief report of the seminar is given on the next three pages.

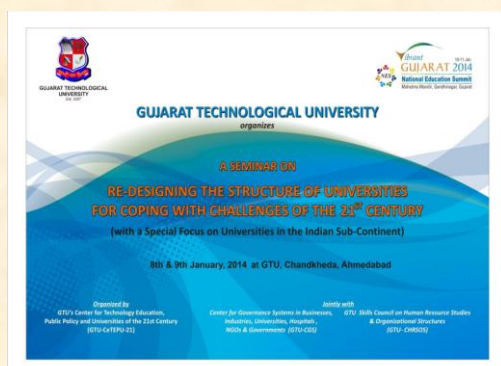
Seminar on Re-designing the Structure of Universities for coping with Challenges of the 21st Century (RSUC)

(with a special focus on Universities in the Indian sub-continent)

<http://projects.gtu.ac.in/DSTU>

8th & 9th January, 2014

The Seminar was organized by 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 & Governments (GTU-CGS) and GTU Skills Council on Human Resource Studies & Organizational Structures (GTU-CHRSOS) along with Department of Education, Govt. of Gujarat as a pre-summit event of National Education Summit (<http://www.vibrantgujarat.com/nes.htm>).



A two day seminar on Re-designing the Structure of Universities for coping with Challenges of the 21st Century (with a special focus on Universities in the Indian sub-continent) was organized on 8th and 9th January, 2014. The seminar was organized as a pre- education summit event for the National Education Summit (NES) by the Department of Education, Government of Gujarat. During this Seminar, the entire body of work, done since April 2011 to till date was presented –including the contribution made to DSTU by the leaders of Higher Education in India. To the seminar were invited all the Vice-Chancellors, Deans and Directors and

some Ex-Directors/Vice-Chancellors. The objective of the seminar was to provide a platform for thinkers, policy makers, academicians and other stake holders, to come together to develop a roadmap for higher education, to design the structure of the higher education system and the Universities for the 21st Century and also to formulate a set of policies, which can bring innovation and unleash the creative spirits at the Universities in India.

The seminar was inaugurated by Shri Bhupendrasinhji Chudasamaji, Hon. Minister of Education, Government of Gujarat in the presence of 44 Vice Chancellors / Pro- Vice Chancellors from various universities across the country. Dr. Jayanti Ravi, Commissioner, Hon. Technical Education, Govt. of Gujarat was also present.



The seminar had four sessions :

- 1. The Existing state of higher education, policy regime and eco- system on the theme of the Seminar and the new directions, required by the system:** Prof. Wasudev Gade, Vice Chancellor, University of Pune, Pune said that education is the basis of National Development – economic, social, political, industrial, and cultural and shared the reasons for declining research quality in Universities and the current status of Research in India.
Dr. Ganesh Natarajan, Vice Chairman and CEO, Zensar Technologies, Sensar Knowledge Park, Pune said that Professor should have passion to change the life of the 100 to 1000 peoples of the society and gave proposal of creating joint activity between industry and university in terms of research, mentoring, teaching, Faculty development programs and to jointly create skills development center within university or out of the country for vocational education qualification through Active learning, distance learning etc.
Dr. Shailesh Takker, Hon. Director, GTU Post-graduate Research Center for Business Ethics and CSR said leadership is nothing but results (performance). Stressing on the importance of good leadership at Universities, he said leadership requires a vision and a focus on change and development.
- 2. Innovations, Linking Academia to Industry and Creating Supportive Ecosystem, Creating facilities for creative work, IPR and Entrepreneurial Systems at Universities was chaired and co - chaired respectively by Professor Anil Gupta, IIM Ahmedabad and Dr. Harkesh Mittal**, Member Secretary & Head, National S & T Entrepreneurship Development Board, Secretary, Technology Development Board. The speakers at the session were from different fields. **Dr. Rameshwar Rao**, Vice – Chancellor, JNTU, Hyderabad, **Prof. H.P Khincha**, Chairman, Karnataka State Innovation Council, **Dr. Kumar Iyer**, JSW Steel LTD, Vijaynagar, **Mr. S. A. Nayak**, Co-founder, MD, CEO - Tejas Networks Ltd, **Dr. R. Venkata Rao**, Vice Chancellor, National Law School of India University, Bangalore. **Dr. Uma Ganesh**, Global Talent Track, **Dr. Dipankar Pal**, Director, Northern Eastern Regional Institute of Science and Technology, Arunachal Pradesh and **Prof. Prabodh Shukla**, North Eastern Hill University Meghalaya, **Dr. D. P. Lokwani**, Vice Chancellor, M.P. Medical University, **Prof. S.P Bansal**, Founder Vice Chancellor, Maharaja Agrasen University, **Dr. A.K Malik**, Registrar, South Asia University jointly with creative interventions by the Chair, made the session highly interesting and inter-active.
- 3. Project-based learning, Design-oriented Education and Making the work - in classrooms, laboratories and workshops- exciting** was chaired by **Prof. C Amarnath**, Professor (Retd) Department of Mechanical Engineering, IIT Bombay. It was co-chaired by **Dr. Swami Manohar**, JED-I, Bangalore, Karnataka along with **Prof. Amaresh Chakrabarti**, Professor at Centre for Product Design and Manufacturing Indian Institute of Science Bangalore. The participants were **Padmashri Dr. K.L Chopra**, President, Society for scientific values, New Delhi & Retd Director, IIT Kharagpur, **Prof. P.P. Mathur**, Vice-chancellor, KIIT University, **Dr. Diapankar Pal**, Director, North Eastern Regional Institute of Science and Technology, Arunachal Pradesh, **Mr. Ravi Kuke**, Vice President, Microsoft, **Mr. Hasit Kaji**, Vice President, Tata Consultancy Services, **Dr. K.K Raina**, Director – Thapar University, **Prof. Milind Atrey**, Professor-In-Charge, SINE (Society for Innovation and Entrepreneurship) and Professor in Mechanical Department, IIT Bombay, **Prof. N. K. Goyal**, President CMAI and **Mr. Saket Modi**, CEO & Co-Founder, Lucidius, Director CMAI.

The session showcased best practices of project based learning for the students. The projects should be based on authentic and real world problems which will make the education more exciting. It also included some of the innovative initiatives to make education interesting rather than burdensome by leveraging the use of IT.

4. Re-designing the Structure of Universities and Public Policy Regime in India for coping with Challenges of the 21st Century was chaired and co- chaired by **Prof. B. Thimme Gowda**, Vice-Chancellor, Bangalore University, Bangalore and **Prof. Shashi Kumar Dhiman**, Vice Chancellor, Himachal Pradesh Technical University, Hamirpur, Himachal Pradesh respectively.

Dr. A. D. N Bajpai, Secretary General, AIU and Vice Chancellor of Himachal Pradesh University, **Prof. K Lal Kishore**, Vice Chancellor, Jawaharlal Nehru Technological University, Anantapur, **Maj.Gen. (Dr) Ranjit Singh**, Vice Chancellor, Central University of Haryana, **Prof. D T Khathing**, Vice Chancellor, Central University of Jharkhand, Ranchi, **Prof. K. C. Singhal**, Vice-Chancellor, NIIMS University, Jaipur, **Mr. Mukul Kanitkar**, Bharatiya Shikshan Mandal, Nagpur, **Dr. Bhushan Dewan**, Pro Vice Chancellor, AKS University, Satna, **Prof. Manzoor Ahmed**, Vice Chancellor, Swami Vivekanand Subharti University, Meerut, **Prof. R P Bajpai**, Chancellor, Vel Tech University, **Dr. Anju Singh**, Provost JJT University, **Dr. Gopal Trivedi**, Former Vice Chancellor, Rajendra Agricultural University, Pusa, **Prof. A.P. Singh**, Dean, Panjab Technological University and **Dr. A.K. Malik**, Registrar of South Asia University were the learned speakers and they discussed the issues of policies, powers of Vice chancellors, bureaucratic hurdles at university level, political interventions, technological advancement and implementation issues. In order to become a world class university, the speakers said that the leaders at Universities have

- to find innovative ways to improve performance and services,
- to encourage innovation and research activity amongst the students and faculty members,
- to train the trainers by conducting large-scale FDP's,
- to build strong relationship between industry – academia (The successful example of the work at GTU was cited as an example.),
- to build collaborations with the other universities and to create a synergical brick and click model,
- to adopt concept based learning and problem based learning,
- to improve the governance systems at Universities.



For the Seminar of 8th and 9th January 2014, you may contact Mr Naresh Jadeja at deputy_dir2@gtu.edu.in or Ms Almas Juneja at almasjuneja@yahoo.co.in.