

# GUJARAT TECHNOLOGICAL UNIVERSITY

## Research project on DESIGNING ORGANIZATIONAL STRUCTURE OF TECHNOLOGICAL UNIVERSITIES (DSTU)

### Report on the Workshop held at Circuit House, Shahi Baug, AHMEDABAD

The workshop On “Designing Organization Structure of Technological Universities (DSTU) was organised by Gujarat Technological University (GTU) on 16<sup>th</sup> June 2012. More than 40 directors and principals of Management and Engineering Colleges affiliated to GTU and invited speakers participated in the Workshop.

#### Inaugural Session

At the outset, **Dr. Gitesh Joshi**, Registrar, GTU welcomed **Padmabhushan Dr. P.V. Indiresan**, Former Director – IIT Madras, **Dr. A.K. Malik**, Registrar of South Asia University, New Delhi, **Dr. Ajit Singh Rana**, former Registrar – Saurashtra University and **Prof. Bharat Dalal**, former Professor of IIM – A. He also welcomed other speakers and participants.



**Dr. Akshai Aggarwal** talked about the vision of DSTU. He further said that Indian Universities are not even in World’s Top 200 Universities ranking, and only three Universities are ranked in Top 500 Universities of the world. He gave a detailed presentation about how GTU was working and the structure, envisaged for GTU.



He expressed his concern that the relative rankings of the Indian treasures (i.e. Universities) was worsening because while the World’s Universities were progressing at a very fast rate, the Indian Universities were not able to keep pace. Thus the ranking of the best University of Thailand, Indonesia, Malaysia and Saudi Arabia was higher than the rank of the best University of India.

He said that if China can, in 25 years, successfully build World Class Universities, if we decide we can also do so in about ten years, since China has already shown us the path.

He ended by giving his own mandate: “If we want to create a World Class University, we must plan innovatively by understanding both the context of where we are and where we want to go. He said that GTU can become a great University by effective networking and teamwork among its large number of faculty members and students.

**Creating Teams as large as GTU has done is difficult. The world has not seen such a large system become a working team. Now, let us immerse and innovate.”**

Dr P.G.K.Murthy, Director, J K. School of Business and Dean, Faculty of Business Studies at GTU, as the anchor of the important workshop, introduced **Dr. P.V. Indiresan** and invited him to deliver the key note address.



Dr Indiresan expressed his thanks for being invited to such a forum and noted with happiness that it is indeed rare to find somebody in India talking about a World Class University. He pointed out that : If we have to create a World Class University , we cannot do it by the UGC system , we cannot do it by copying the IITs **WE WILL HAVE TO DO IT DIFFERENTLY!!**

He went on to say that just 1000 years ago, India’s Technology was world class, but today India does not own even the simplest technology , be it fans, cycles, windows, or even soaps. This is something that must hurt us.

He asked a question,” Why does the WEST dominate in Technology?”



His answer: Western scholars create a paradigm; they validate the paradigm with experiments, whereas we believe what has been told to us by our fore fathers. They look for flaws even in the best of their paradigms and they continuously search for a better paradigm each time. Even after creating a new paradigm themselves, they check it rigorously with new experiments. For example people are still working on disapproving what Einstein said.

He said that if GTU wants to become a World Class University, we will have to aim high, and we must stop emulating Indian Universities like the IITs and for that matter even the World's Best Universities. He further suggested a step by step plan:



## 1. HOW TO SELECT FACULTY: AS FACULTY IS THE KEY:

- \* Select them not so much for past performance but for their future prospects.

Hence they should be below 45 years of age.

- \* Select them on tenure appointment basis. Only after they have proven themselves, they may be confirmed. Like in the American system, Assistant Professors are strictly for 7 years on contract appointment and only after they have proved their research ability, they are confirmed.

- \* Choose the very best teachers from anywhere in the world (that is why USA is the best, they have students and professors from all over the world. )

- \* Invest in their future capability (Robert Reich said in his article “Who is Us”: “A corporation which does invest in training and development of Human Capital is “OURS” even if it is owned by foreigners.”)

## 2. GTU to have various SCIENCE and TECHNOLOGY PARKS:

- \* Great Universities have Science and Technology Parks like the University of Virginia (USA)

- \* GTU must offer R&D infrastructure for small and large Industries



- \* Industries can therefore perform R&D and offer projects and finance to the University. (Industries must be given space only so long as they perform R&D in collaboration with University and its students.

- \* Make researchers feel big like a bird

- \* Have separate career paths for scientists and administrators.

## 3. FUNDING A UNIVERSITY :

\* Capital and running cost – the two should be funded separately

\* The State government should provide for Capital investment.

#### 4. ADMISSION POLICY :

Here he gave a very bold statement saying that whether we like it or not, children of the rich and powerful will influence greatly the future of our country. And therefore they need good Indian Education. Professor P.V. Indiresan advised that the PARETO criteria be applied: Give 20% of the seats to the rich and let them pay for 80% of the running expense of the Colleges. 80% of the remaining students be admitted by merit and they may pay only 20% of the running cost. This will enable the University to attract the best professors from the world and their salaries can be paid through the Pareto system of fee.

#### 5. SELECTION OF THE STUDENTS:

As Prof. J B S Haldane says – examinations are not a mark of good students. Therefore leave it to the professors to select their doctoral students.

#### 6. COUNTER THREAT FROM THE ACTIVISTS :

University should conduct research in humanities and learn to answer activists. If at all activists were as active in the fifties as they have become now, there would have been no Bhakra Nangal Dams.



Dr P V Indiresan quoted Donald Christiansen who had said : “A country that trains its engineers and technologists well, and then rewards them both with real and psychic income should have little trouble competing in a world economy that thrives on trading high quality hi-tech products over international boundaries.”

He encouraged the audience by saying that, we must not lose hope and courage, What we lack is a driving force and we are suffering from an inferiority complex, We need to defeat the defeatist spirit

and have a spirit of victory. He quoted C V Raman who said that: “We need a spirit of victory, a spirit that will carry us to our rightful place under the sun, a spirit which will recognise that we, as inheritors of a proud civilization, are entitled to a rightful place on this planet.” Dr Indiresan saw that GTU has the determination to succeed and it seemed to have an indomitable spirit. He said that he felt that if we continue to work as a team to make GTU a great University, nothing could hold us from achieving our rightful destiny.

He concluded by suggesting the following **mantras**:

- a. Copy the Western scientific temper
- b. Test Science and Technology models

- c. Look for a new model if old one fails
- d. Re-write text books
- e. Observe the principles of our sages, Aim high, choose high quality faculty, establish Science and Technology parks, have a liberal admission policy, learn to resist activists.

He advised us: NOT TO BE AFRAID OF THINKING AND TRYING NEW IDEAS!

In his address he cited Vedas through various shlokas. He said that both Vedas and Bhagwat Gita emphasized the importance of knowledge, skills and human development for the benefit of the humanity at large. He again appreciated GTU for taking leadership for conducting the Research Project of DSTU for the first time in the country. He said that such a project is highly relevant and will prove to be useful to the whole of the nation. He advised to develop GTU



with a vision for 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, where he had taught for 40 years.

### Session I

The second session had three presentations from the three units of GTU, which had worked jointly on the research project. **Dr. Ajit Rana** presented the vision for the Post – graduate Centre for Technology Education, Public Policy and Universities of the 21<sup>st</sup> Century. He suggested an enabling structure for the Center within GTU.



**Prof. Bharat Dalal**, the Honorary Director of the Post – graduate Centre for Governance Systems in Businesses, Industries, Universities, Hospitals, NGOs and Governments discussed about the Center’s plans. He said that there is a dire need to change the mind-sets for proper governance.

**Ms. Trupti Almoula**, I/c Director – Narmada College of Management, Bharuch and the Champion of the GTU Skills Council on Human Resource

Studies & Organizational Structures (GTU – CHR SOS) elaborated on the vision for GTU-CHR SOS. She said that the Council was one of the three Councils established by GTU on 25<sup>th</sup>

June 2011 for promoting immersion studies and for systematizing the profession. She also highlighted its plans for future activities.

**Dr. Rajesh Khajuria** spoke about the work done by the Core Committee of the DSTU Research Project. He briefly mentioned the strategy adopted by Core Committee to undertake DSTU research under 5 groups.



- 1) Ancient Universities of India by Dr. Rajesh Khajuria, Director, SMJV's CKSVIM, Vadodara
- 2) Technological Universities / Technological Institutes of India by Dr. Rajesh Khajuria
- 3) IIT – Kanpur by Dr. K.N. Sheth, Director, Shri Saraswati Group of Colleges, near Ahmedabad
- 4) Global Universities by Dr. Trupti Almoula, In charge Director, Narmada College of Management, Bharuch
- 5) Asian Universities by Dr PGK Murthy, Director, Parul Institute of Management, Waghodia

Dr. Khajuria explained four challenges to GTU and four geographic dimensions, which are being taken into account so that GTU may become a world class University. Finally he presented the draft organisational chart for GTU's development.

Extensive discussions were held throughout the session.

### **Session II (Post Lunch)**

The second session started with the Key Note Address by **Dr. A.K. Malik**. Dr. A K Malik first of all congratulated Hon Vice Chancellor – GTU, Dr Akshai Aggarwal for the excellent work done by him and his team.



**Dr. A.K. Malik** in his key note address talked about his experiences in developing the structure of **South Asia University (SAU)** as a founder Registrar. The South Asia University is being funded by the seven **SAARC Countries**. Therefore, the admissions are at SAARC level, based on the quota reserved for each country. Currently,

the SAU offers 7. It plans to offer undergraduate programs in near future. He emphasized the need for developing an excellent library with online and print media books and journals from around the world.

1. Capital contribution is made by the government.
2. Operational expenses by the member countries are based on a derived formula
3. Soft scholarships are given to a large number of students.
4. Faculty references come from all countries.
5. Entrance exam is held in all the member countries.
6. 7 PG Programs in Humanities are being offered.
7. SAARC has a: Registrar, Director- Finance, Director-Administration, Dy Registrar-systems, etc.
8. Salary of all the faculty members is tax free. Minimum salary for Assistant Professor is Rs 80,000/- p.m., for Associate Professor is RS 1,20,000 p.m. and that of the Professors is Rs 2 lacs a month.
9. There is a provision for professional development allowance of \$ 2000 per year to attend conferences, buy equipment, etc, which they can avail for three years.
10. There is a provision for a start-up Research grant. The research proposal needs to be reviewed by the Peer Group and outside experts. The Research grant is \$ 15,000 per year for three years.
11. SAU aims to attract the best of faculty from all around the world.
12. The campus is with Wi fi facility.
13. Every faculty and student is given a Smart card.

After having described the existing and proposed practices at his University, he went on to say:

- It is a step in the direction of being a world class university
- World Class Universities cannot be built overnight, it requires a different perspective, a commitment from all segments – faculty, students and administration, alike to develop and maintain a world class University.
- Procedures must support fast movement of decisions for the expected output.
- Hence the structure needs to be lean and thin – the routine papers must not pass through more than 2 channels, things should get sorted out at the Dy Registrar and Registrar level.
- Above the registrar, there should be maximum of two levels: the Pro – Vice Chancellor and then the Vice Chancellor.
- There should be tenure appointment of all faculties: 1 year probation + 5 years = 6 years before they are confirmed. At least in case of administrative staff, tenure appointment is a must.



Regarding GTU and its research project, professor A.K. Malik said that the very fact that a research project like DSTU has been taken up shows that there is a strong WILL to develop GTU. He suggested as follows:

- There should be delegation of powers.
- For Policy level decisions, there should be not more than 5 levels and for execution there should be no more than three levels.
- Duplication of work / authority must be avoided.
- ICT policy of GTU is appreciable and indeed a benchmark for most Universities. ICT policies must be at three levels, short term., medium term and long term.
- Working knowledge of ICT should be required for all staff.
- With ICT, due care should be taken especially on level of disposal. Enough checks and balances need to be introduced,
- There has to be academic and administrative freedom with enough clarity and transparency.
- There has to be clear and fast mechanisms inspite of various committees.
- There can be a handbook giving all contact details and the university protocols for reference.
- Career planning, HR Planning and Library must be well thought of.
- International collaborations are a must.
- Periodic reviews must be conducted
- The organization structure should include outsourcing of external services which will help avoid a lot of legal issues.
- Optimal utilizations of all types of resources is very critical – find out where pooling can be done. With Technology – this is possible.



He further stated that GTU has a wide network of around 500 colleges and 4 laces students. To weld them together for joint working, the University should develop software and give to all constituent colleges. He said that



GTU has the potential to become a great University and he expected it to become a leading University.

Detailed Discussions were held throughout the session.

At the end, **Dr. T.D. Tiwari**, Director General, SPEC, Bakrol, VV. Nagar moved the Vote of Thanks.

The workshop started at 9.00 am and ended at 4.30 pm.