

## 9.1 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITIES, ANDHRA PRADESH.

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### Summary

A new innovative approach was adopted by establishing Jawaharlal Nehru Technological University in Andhra Pradesh (A.P.) in the year 1972. The idea was to bring uniform curriculum in the state, Common Affiliation Procedure, Evaluation System, Academic Audit, Faculty Training, Placement and Training and common guidelines and regulations for affiliating Professional Colleges on common bench mark.

The experiment was successful in A.P. and then onwards, other states like Tamilnadu, Karnataka, Madhya Pradesh have established the Technological Universities. Jawaharlal Nehru Technological University, Hyderabad, experiment is very much successful and it's a role model for rest of the Universities. JNTU Hyderabad is conducting common entrance tests in A.P. for last 15 years and merit ranking is given for admission into all Professional Colleges to ensure uniform Academic Calendar. It is also found to be easy for regulating agencies to deal with the issues involved in Professional Education. Apart from Conventional Courses, New Programmes like Double Degree, Integrated Programs, Collaborative Programs, Industry Sponsored Courses and Customized Programs are introduced, without any delay in approval process by the academic bodies; whereas it is much more complex in Conventional Universities.

Technological Universities will have a greater role to play to bridge the gap between advanced institutes like IIT's, IIIT's and NIT's in the country.

### Profile of JNT University Hyderabad

JNT University was established in the year 1972 by an act of A.P. State Assembly. State Government has taken a policy decision to affiliate all self financing Engineering, Pharmacy, MBA, MCA Colleges to the newly established University during 1984-85 academic year onwards. However, the colleges, existing prior to this, continue to be with the territorial Universities in the State. From 2007-08 academic year onwards, the State Government has given an option for self financing

Institutions to opt either with territorial university or JNT University. Now as of 90% Engineering and Pharmacy Colleges are affiliated to Technological Universities. In the year August 2008, the state Government through an ordinance (and later on Act passed by State Legislature) carved out three technological universities at Hyderabad, Kakinada and Ananthapur, retaining the name as JNTUH, JNTUK, JNTUA and the Fourth "JNTU Fine Arts and Architecture university" was created with state wide affiliation and head quarters at

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Hyderabad. These four universities function independently with separate Vice Chancellors from 2008 onwards. Similar model exists in the State of Tamilnadu.

#### **Advantages of Technological University :**

Technological Universities have a major advantage of framing uniform curriculum, common academic calendar, flexibility in introduction of new programs/courses with ease, internal assessment examination and evaluation system faculty development and capacity building academic audit, monitoring and development of affiliated institutions, maintaining quality of teaching and research and self appraisal.

#### **University Constituent and Affiliated Colleges**

JNT University, Hyderabad, has spread over an 90 acre campus and following institutions/units are located in the campus.

- Foreign Student Affairs
- Academic Staff College
- Admissions and Counselling
- Consultancy
- Other service departments like Engineering Department, University Guest House, Health Centre, Sports & Games and Canteen.

University has also established, two rural constituent Engineering colleges at Manthani and Jagityala in Karimnagar Dist.

#### **University Affiliation System**

The university has established separate directorate of Academic Audit cell to monitor the Academic performance of the affiliating institutions on yearly basis. Affiliation is accorded only if the performance of the Institution is satisfactory in respect of infrastructure, classrooms/laboratories equipment, faculty as per norms, students

- JNTU College of Engineering (JNTUCEH)  
(Courses offered - B.Tech., M.Tech., MCA, MS, Ph. D)
- School of Information Technology (SIT)  
(Courses offered - MCA, M. Tech., MSIT, and Cisco Regional Academy Courses)
- Institute of Science and Technology (IST)  
(Courses offered - M.Sc., M.Tech., MS and Ph. D)
- School of Management Studies (SMS)  
(Courses offered - MBA (regular/part time), MBA (International Business)  
MBA (Collaborative)

#### **Directorates / Centres / Units**

- Distance Education
- Research and Development
- Academic Audit
- Examination and Evaluation
- Academic planning

performance including minimum 75% attendance requirement, student amenities like transport, canteen, games and sports facilities teaching and research and quality of the students at the entry level.

The data obtained from the Institution is put on University website and even the examination results declared in every semester are put in the public domain. University approval is required

for Faculty recruitment, including Principal. The affiliation is withdrawn if the institution fails to adhere to AICTE and University norms.

### Academic Collaboration

A. The JNT University Hyderabad has entered into collaboration with BT, Sweeden and introduced

- i) Dual Degree programmes leading to M.Sc. (Engg.) and M.Tech.
- ii) 5 year Integrated dual degree programmes leading to B.Tech., M.Tech. and M.Sc. Engg.

B. The University has entered into MOU with the Central Michigan State University (USA) for Joint MBA programme.

C. The university is offering mainly courses through collaboration in the fields of -

- VLSI and Embedded systems
- Animation and Multi-Media
- Aviation and Aerospace
- Hospitality and Tourism Management
- Pharmacy
- Avionics
- Power systems

### Centres of Academic Excellence

The following research centres are established during last three years to promote research among students and faculty in the emerging areas.

- VLSI and Embedded systems

- CAD/CAM
- E-Learning
- Innovation
- Alternative Energy Options

### Visibility and Quality assurance

The technological university concept is well received in A.P. as well as in the country. Most important aspect which the university is following is the ONLINE Examination Evaluation System using OMR Answer sheet and declaration of results with rapid pace through ensuring transparency, strict adherence to Academic Calendar apart from grievance redressal mechanism, has been put in place.

The visibility and credibility of the University is in high esteem in A.P. and in the country and quality of the Graduates coming of University have a remarkable recognition for placement and guidance in education.

### Conclusion

The experience of establishing Technological University in the State has become imperative in view of the success achieved by earlier technological universities in A.P., Tamilnadu and Karnataka.

New Models of Programmes/Courses, Institutions, collaborations, curriculum and evaluation methods and use of ICT in Teaching - Learning process are welcome features.



## 9.2. VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM, KARNATAKA.

*Prof. H. Maheshappa\**

### **Background**

In India, the state governments are responsible for education in their states. So, development and monitoring of universities is in the mandate of a state government. In view of improving the quality of technical education in Karnataka and recognizing the importance of professional education in knowledge sector, the Karnataka State government passed the Visvesvaraya Technological University (VTU) Act in 1994 which led to formation of VTU and its dedication to technical education. This has ushered in a new paradigm in the field of technical education by bringing all the engineering colleges under a single umbrella. The setting up of VTU has brought uniformity in academic and administrative functions of the engineering colleges in Karnataka.

### **Introduction**

Bharat Ratna Dr. Sir M. Visvesvaraya, illustrious son of Karnataka, early promoter of modern technology in India, advocated the importance of Science & Technology and Higher Education for India nearly a century ago. Visvesvaraya Technological University (VTU) is named after him and was established at Belgaum on April 1, 1998, as per the VTU Act 1994 of the Government of Karnataka. The aim is to promote planned and sustainable development of technical education, consistent with state and national policies, to supply the required manpower of the appropriate kind and quality, to meet the needs of the society and to

establish special high-tech research programmes, inter-disciplinary programmes and knowledge infrastructure through constituent institutions and facilities.

### **Vision**

To become an outstanding Technological University at the cutting edge of Science and Technology that produces world class Knowledge-delivery, Research, Extension and Leadership in Technology innovation for Industry and Society.

### **Mission**

To plan the development of technical education, to establish value-based and need-based education and training in engineering and technology, with a view to generate qualified and competent manpower, responsive to technological and societal needs.

### **Location**

Visvesvaraya Technological University has its Head Office located in Belgaum. Reckoning the fact that University is a seat of confluence of knowledge and as a technological University, Visvesvaraya Technological University does not restrict itself only to curricular activities but emphasizes on the overall growth of knowledge in society and hence its campus in Belgaum is named aptly as "**Jnana Sangama**". The University has jurisdiction over the whole state of Karnataka. For administrative convenience University has four Regional Offices established

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at Bangalore, Mysore, Gulbarga and Belgaum.

“Jnana Sangama”-115 acres of tranquil ambience with modernistic architectural elegance making a quite statement of class and quality in the cubical shaped buildings that carry the essence of technological advancement in their futuristic designs. It houses an Administrative Block, PG Block, Regional office, Senate Hall, Executive Council Hall, Amphitheatre, Auditorium, Girls & Boys Hostels, Guest House, Indoor Sports Complex, Hi-tech Tennis Court, Market square, Bank, Post office and Residential Quarters for smooth function of University.

### **e-Campus**

VTU has made the 115-acre sprawling VTU campus in Belgaum in the state of Karnataka, world class with wireless infrastructure. The full-fledged e-Campus faculties are enabling every student of the master’s programme – (MBA, MCA, M. Tech (VLSI), M. Tech.) and faculty members on the campus to get the best educational service and support. The approach of the University is to “**Go digital**”.

Along with implementation of e-Campus project, the online examination system is introduced. Continuous evaluation using peer networking and online examination has been introduced to expedite announcement of results and to maintain uniformity and transparency in evaluation.

### **Academic Profile**

VTU is one of the prestigious and largest Technological Universities in India with 193 Engineering colleges affiliated to it. VTU imparts technical education to more than Three Lakh students under its 32 Undergraduate and 82 Postgraduate Programs (M. Tech., MBA & MCA) apart from doctoral programs (Ph. D., M. Sc. Engg.) in 300 departments in 100 Colleges which have been designated as research centers covering all disciplines as a forerunner to transform VTU from a teaching centric University into a research and knowledge centric University.

VTU has one constituent college and has given academic autonomy to 17 engineering colleges. 16 Affiliated Colleges are financially aided under TEQIP program of World Bank

Every year VTU is conferring Under Graduate degrees to over 45,000 Engineering students, Post-Graduate degrees to over 7000 students and also awarding Ph. D./M. Sc. (Engg.) degrees to over 100 students.

The revamp of syllabi by VTU is its core competency and is a landmark development in the field of Engineering in the State and also in the Country. The UG Syllabus gets revised every four years and the M. Tech./ MBA syllabi get revised every two years and MCA syllabus every three years. Introduction of flexible syllabi have helped the Engineering students to prepare themselves in tune with the trends of end-users.

Within a short span of 13 years, University has endeared itself to so many professionals all over for its integrity, commitment, belief in change and excellence in every thing it does. VTU and its graduates have contributed tremendously to the state of Karnataka in creating the past, present and future of engineering for the well being of the society at large.

### **Courses**

32 different Under Graduate Courses and 80 Post Graduate Courses are offered.

### **Research Activities**

VTU encourages Research & Development activities in its affiliated colleges. There are over 300 departments of affiliated colleges recognized as research centres across the state of Karnataka. In an attempt to enhance research aspect, the University has created a “Research & Development Fund” with annual budget of Rs. 5 Crores to promote the R&D activities amongst the affiliated engineering colleges. The University also created “Patent Fund” with annual budget of Rs. 10 lakhs.

## Research Portal

VTU has launched Research Portal. This portal is designed to have information such as, List of guides, their research area, research students attached to them and the research centre; Material on Research Methodologies and Report Writing; LATEX templates; Research funding from VTU; List of thesis published by VTU till date. The portal has a built-in search mechanism that facilitates retrieval of any stored information.

## E-Vidya

E-Vidya Media Streaming System of VTU stands first in the country in deploying high speed streaming of video contents of various NPTEL courses. These systems are deployed at college campus LAN so that students have access to the relevant video based lectures any where in the campus without delay or jitter. Currently VTU has distributed the system to 50 Colleges.

## Memorandum of Understanding with Institutions/Industries

VTU has entered into MoUs with leading Institutions/Industries. To name few; IBM India Ltd, INTEL Asia Electronics INC., Microsoft Corporation of India Private Ltd, Ingersoll-Rand (India) Ltd. (IR), Diamant Metaplastic GmbH. Germany and Diamant Triumph Metaplastic Pvt. Ltd, Bangalore, Indian Space Research Organization (ISRO), Karnataka State Remote Sensing Application Center (KSRSAC), Bosch Rexroth, Germany, Honeywell Technologies Pvt. Ltd Intel Technologies Pvt. Ltd, National Aerospace Laboratories (NAL), Bangalore

Mission 10X of Wipro Limited, Robert Bosch Engineering and Business Solutions Ltd (RBEI) Germany. These **MoUs have resulted in the creation of International Centres like:**

- VTU-Microsoft Technology Centre at Belgaum,
- VTU-Indo-German Institute of Technology

(IGIT) at Bangalore,

- VTU-Sun Knowledge Laboratory at Belgaum,
- VTU-UGS PLM Center of Excellence at Belgaum,
- VTU-IBM Centre of Competence at Bangalore,
- VTU-Bosch Rexroth Centre of Competence in Industrial Automation at Mysore, Post Graduate course in Avionics at HONEYWELL, Campus at Bangalore.

## VTU Institute of Advanced Technologies

The University has taken over 200 Acres of land in Muddenhalli, Chikballapur District, the birth place of Sir M. Visvesvaraya for establishment of **VTU Institute of Advanced Technologies**. The curricula and syllabus have been prepared to start M. Tech. programmes under VTU Institute of Advanced Technologies (VIAT) at all its four campuses i.e. Bangalore, Mysore, Gulbarga and Belgaum from the academic year 2011-12 in the disciplines of Control, Communication and Computation, Materials and Manufacturing Technologies, Energy and Environmental Technologies, Resources and Geo-Systems Technologies respectively.

## VTU-Edusat Programme

VTU has, first time, amply demonstrated to the country, the multiple utilization of India's ambitious EDUSAT network, thereby heralding a new phase in Distance Education using satellite. Started in April 2004, jointly with country's prestigious Indian Space Research Organisation (ISRO), VTU is not only transmitting regular syllabus-oriented live video lessons from its state-of-the-art studio situated at Bangalore but also transmitting varied programmes.

The satellite-based education comes under the ambit of the prestigious EDUSAT project

of ISRO, Govt. of India. All the engineering colleges affiliated to VTU have been networked thereby making VTU as the single largest connected University in India. The programmes are being transmitted in two different channels: VSAT-Interactive channel, which is interactive with two-way video and two-way audio, while Channel-2 is DTH-based network with one-way video and one-way audio.

Besides conducting hundreds of classes on varied VTU subjects of different disciplines, VTU-e-Learning Centre is conducting sessions related to technology, soft skills, career development, frontier lectures, exam-revision etc. In novel C<sub>X</sub>O Speaks programme, IBM, Microsoft, Sun Microsystems and Infosys companies have participated in a big way.

### Infrastructure of the University at Belgaum

The University has developed excellent infrastructure facilities both at Head quarters and its Regional-2 centres.

**Digital Classroom:** Multimedia has made the whole experience much better and much easier and remote access is the order of the day. E-Learning is the delivery of content via all electronic media, including the Internet, intranet, extranet, satellite broadcast, audio / video tape, interactive TV, and CD-ROM. It is the use of this network technology to design, deliver, select, administer, and extend learning, using the power of the network to enable learning - anytime, anywhere at an affordable cost. The e-Campus is a unique initiative at VTU Campus at Belgaum, first of its kind in India.

**Library** is well equipped subscribing to various national and International management and technical journals. The wide variety of books available caters to the requirements of all the students of different specializations. **A digital library** is on the anvil to be set with the resources from well known organizations and extend this facility to all its affiliated colleges. Book bank facility, with an access to many books on-line, will be in vogue to all the VTU

students in the near future.

**Hostels:** University has provided excellent single occupancy hostel facilities to both boys and girls who are studying in the Campus at Belgaum

**Sports;** VTU is encourages Sports & Cultural activities with the focal objective of overall personality development of the students. The University has created world class facilities.

**Senate Hall;** Impressive dimensions within the Senate Hall provide video conferencing set-up of the most sophisticated kind with touch-enabled microphones, digital presenter with visualize and other electronic devices.

Synthetic Tennis Court Complex to the International Standard, having four courts with facilities of coach rooms, change rooms etc for men and women and also with spectator gallery capacity about 500 members.

Indoor Sports Facilities Complex provided with facilities of two courts badminton hall, eight table tennis halls, snooker hall, library, chess room and gymnastic for boys and girls etc.

**Auditorium** is a R.C.C framed mammoth structure admeasuring about 3200 sq m in area. It is a centrally air-conditioned building, comprising of large lobby area, visitors lounge within and amenities, with a seating capacity of about 800 as the important aspects of its design. It has been designed as a world class Auditorium keeping in mind the acoustic aspects of state of the art facilities worldwide.

**Amphitheatre** acts more of an informal public zone for open air functions like music concerts, convocations, conventions etc for the students and the staff alike. The Amphitheatre is a R.C.C framed oval shaped structure admeasuring about 5750 Sqm in area. It comprises of important amenities for the public like cafeteria, large outdoor lobby area, exhibition space as the important feature of its design; along with its stupendous seating capacity of more than 1500.

### Infrastructure of the University at Regional Centers

**Bangalore:** VTU has purchased 1.8 acres of Land at Nagarabhavi, Bangalore. The Construction work of Bangalore Regional Center Building will be completed very soon. It is proposed to acquire additional land of 6.30 acres at Banashankari, Bangalore for establishment of Entrepreneurship Development Cell.

**Gulbarga:** VTU has purchased 15 acres of Land at Gulbarga. Construction of Admn Block, PG Centre, Hostels, Guest House, Library buildings are completed.

**Mysore:** VTU has purchased 8.8 acres of Land at Mysore. Administration Block, Training Centre buildings are completed. Proposed to construct Hostels, Guest House, Conference Hall, Library, Mess etc. Recently, VTU has purchased 34 acres of land from Govt. of Karnataka at Chorannahalli Hobli, Mysore for the additional infrastructure at VTU Regional Center Mysore.

**Davangere:** VTU has purchased 13 acres of Land at Davangere. Construction of Valuation Center and Faculty Training Center are under progress.

### Some of the Recent Accomplishments of the University

- University adopted the Digital Evaluation System of answer scripts of UG and PG courses. VTU is the first University in the country to adopt Digital Evaluation System. The students get their results in a record time.
- Adopted the system of ON-LINE delivery of Question Papers to affiliated colleges
- VTU proposed to adopt End-to-End solution in its examinations process. The Automation will be adopted from the stage of filling exam application to the stage of announcement of results.
- VTU has created a "Research & Development Fund" to promote the R&D activities amongst the affiliated Engineering colleges with Rs. 10 Crores Research grant.
- Keeping in view the scarcity of Ph. D. Guides, VTU has revised the existing regulations leading to the Ph. D. Degree. Any person possessing Ph. D. degree working either in Academic institutions or Industries can register with VTU and guide Ph.D. Candidates.
- M. Tech. programmes under VTU Institute of Advanced Technologies (VIAT) at all its four campuses i.e. Bangalore, Mysore, Gulbarga and Belgaum commenced from the academic year 2011-12 in the disciplines of Control, Communication and Computation, Materials and Manufacturing Technologies, Energy and Environmental Technologies, Resources and Geo-Systems Technologies respectively.
- Integrated M. Tech. programme leading to Ph. D. from the academic year 2011-12.
- From the academic year 2011-12, University started MBA, MCA & M. Tech. courses in all the VTU Regional Centers.
- Established Training Center at VTU Regional Center at Mysore in collaboration Bosch Rexorth, Germany to provide training for students and faculty members in the area of hydraulics and pneumatics. From the academic year 2011-12, M. Tech. programme has commenced for 25 candidates fully sponsored by Bosch Rexorth company.
- VTU entered in to Tri-Partite Agreement with Hyderabad Karnataka Area Development Board (HKADB) and e-Health Technology Business Incubator on 20th June 2011. Under this Tri-Partite Agreement, Regional Innovation and Collaboration Hub (RICH) has been set up at VTU Regional Center, Gulbarga with the objectives of creation of technology based new enterprises,
- With the objective of creating the placement opportunities particularly for rural engineering students, the University has taken step to organize Job Fairs at different Revenue Divisions of Karnataka State.
- VTU conducted JOB FAIR on 5th & 6th March

2011 at VTU Regional Centre, Gulbarga for exclusively rural engineering college students. Over 4000 engineering students participated in the Job Fair

- VTU proposes to establish Centres of Excellence jointly with leading industries in all the VTU Regional offices.
- VTU proposes to establish "Centre for Urban Development & Infrastructure Studies"
- In an attempt to popularize science and technology among the common mass, the University is publishing the books in Kannada under "Janapriy Tantrika Shikshana Male". 65 books are already released.
- VTU entered into MoU with Innovent Engineering Solutions Pvt. Ltd., Bangalore. This MOU is for formulating methods of working together for strengthening research aptitude of the students & faculty in Computer Aided Engineering, Computational Fluid Dynamics, Electro Magnetics and Electronic Design Analysis.
- Organizing "Vidyarthi Adalats" every month to listen to the grievances of students, parents, teachers and office staff of colleges at VTU Regional offices at Bangalore, Belgaum, Gulbarga and Mysore.

### **Sports and Cultural activities of VTU**

- Conducts mega events like Annual Athletic Meet and Youth Festival every year.
- VTU conducts every year the Inter Collegiate Tournaments and competitions in twenty disciplines including Annual Athletic Meet and Youth Festival.
- The University distributes Blazers, cash awards and scholarships to those who win medals in Inter University level competitions.
- VTU is awarding Rs.1,00,000 per college for the first five colleges and Rs.50,000 per college for the next five colleges as awards to those excelling in Sports and Cultural activities.

- Organized South Zone and All India Inter-University Table Tennis Tournament for both men and women in February 2011 at "Jnana Sangama", Belgaum.
- Organized South Zone Inter-University Tennis (Women) Tournament in October 2011 at "Jnana Sangama", VTU, Belgaum
- VTU is developing as a centre of Excellent Technical Education with its various innovative programs and multifarious activities and is carving a niche for itself among the world class Universities.

### **Road Map for the Next Three Years**

- To prepare Vision Document of VTU to become outstanding University at the national and international level.
- To organize National & International conferences, seminars & workshops at VTU, Belgaum.
- To start center of excellence in collaboration with Industries
- To float project proposals through VTU to various organisations like AICTE, DST, MHRD, DRDO, GTRE, NAL, ISRO, etc to get funds / grants.
- Planning to organize HR conclave of reputed companies for campus recruitment.

VTU always looks forward to creating a culture of innovation in engineering education and research. These goals will be in order to advance technology and produce engineering graduates who will be creative engineers in a global economy. University is on the path to play a significant role in the development of technical education scenario in the State by providing opportunities for learning and prepare graduates for leadership.



### 9.3. MAHAMAYA TECHNOLOGICAL UNIVERSITY, NOIDA.

Dr. S. K. Kak\*

The growth of Technical Education in India, has seen a massive participation of the private sector in providing Engineering, Technology and Pharmacy seats through colleges at primarily the under graduate level, and later on in management & engineering and even at the post graduate level. It has been estimated that 85 to 90% of the total 1,50,000 B. Tech. seats in India are presently being provided by these institutions. The birth of these private professional educational Institutions, necessitated the creation of Technical Universities for affiliating these institutions within the territorial jurisdiction as provided for by the respective State Govt. Acts. The Technical Universities are largely affiliating in nature and are required to formulate, enforce & facilitate the syllabi, curricula and examinations respectively of these colleges, so as to maintain academic standards and provide degrees to the qualified students from these colleges. Though the mandate of different Technical Universities is varying in some detail, primarily, they are all unitary in nature and have been formulated by the State Act.

While the explosive growth in professional education is necessary as dictated by the National demographic, developmental and economic requirements, it is still low, compared to the developed countries of the world and even less than some of the other developing countries. The GER in higher education in India today stands between 12 to 13% and needs to be

taken to at least 20 to 25% in the coming decade. However, the rapid growth in technical colleges in the past decade, has not been able to assure & maintain the quality of the graduating engineers and managers nor the employability of these graduates in areas demanding engineering competence. The Engineering attributes required by the industry and the attributes of the passing out students have been found to have a huge gap resulting in very poor employability quotient as per the NASSCOM & FICCI reports. They are found to be deficit in domain knowledge, capability in application of even the knowledge they possess and lack the ability to identify, analyse and solve the problems in the field. Continuing addition of colleges and expansion of seats in existing colleges, is only going to make the problem severe and intractable. The rapid expansion in setting up of private & deemed to be universities, is further exacerbating the issue as they do not even have to seek the mandatory approval from AICTE in opening new courses or programs and have thus added all sort of Graduate, Post Graduate & even PhD programs with very little self restrain or quality assurance. A concurrent phenomenon has been the low admission in engineering and management programs in many of the colleges throughout the country resulting in almost 40 to 50% vacancies. This has created the situation where the existing colleges especially in rural areas are trying to close down, while new colleges are coming up in urban areas.

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So, how do we, the Technical University academicians & administrators, propose to overcome the quality & quantity requirements to meet the countries growth, development and progress, is the main source of worry. The Technical Universities have been working almost in isolation and have had very little coordination and cooperation in solving the problems of quality, man power planning, and good teachers.

These endemic issues have been under the close study of almost all the universities as well as AICTE and the UGC. The initiation of programs like Quality Improvement Program (QIP) full time & even part time Post Graduate courses in private colleges, increase in UGC & AICTE scholarships at PG & Ph.D. level and other initiatives have improved the availability of PG trained teachers but at comparatively very low rate. The scarcity in areas like Computer Science & Engineering, Electronics & Communication Engineering and even other related areas has been very severe while the demand from the industry was very high in these very areas at the under graduate level. The situation became so bad that the fresh graduates who could not get any industry job had to be recruited to fill up the teaching vacancies in many of the private colleges. This situation has arisen that the Technical Universities have produced engineers that are unemployable and are also not able to cope up with the demands of industry even for other tasks like BPO & KPO operations. However, even then the private colleges continued to increase the admission capacity in these branches at breakneck speed, without bothering about teaching faculty, infrastructure and the quality of students admitted so long as they could get these seats filled in whatever way possible. Often the standard of admitted students and their capacity to cope up with engineering course demand was overlooked with the result that the passing out percentage came down to almost 40 to 50% at UG level. On the contrary, capacity in many of the core engineering branches like Civil Engineering, Mining Engineering and Chemical

Engineering were reduced or even closed down. The effect of this was an acute shortage for the industry when the infrastructure projects came on the pipeline and needed these personnel to handle the available jobs. The total lack of man power planning and dove tailing of National requirements with the available trained technical man power has taken its toll on the growth and development of these sectors.

Technical Universities have also not been able to steer the growth in other areas of National importance or predicted future focus areas as they lack a proper perspective on National manpower requirements nor are they able to get such a reliable forecast from any Planning wing of the Govt. It will not be out of place to mention, that today, the kind of data coming from state boards of higher secondary education or even CBSE, indicates reduction in enrolment of students in Biological Sciences and also main stream science subjects while the rush for commerce and arts subject is growing and continues to overburden the available infrastructure in colleges mostly government supported or owned. This is a very dangerous and disturbing trend which must be reversed as the coming decades will need large number of trained specialist in Life Sciences and also Physical Sciences, along with Engineers, Technologists and system specialists in the interdisciplinary fields. The expansion in Biotechnology, Bioinformatics and Biomaterials is not only vital for the very survival of the current industries but must be seen as the basis for most of the new products, processes and technologies that will help and sustain industries be it in the manufacturing sector or in services areas. The country will not be able to meet the challenges in creating new materials and processes without using the biological knowledge and techniques.

The explosive growth in knowledge and the continuing acceleration of this growth has forced the developed world to think about remodelling and reshaping the higher education institutions which can equip and train the students to meet

these demands of the coming decades. The National Engineering Foundation (NEF) and National Science Foundation (NSF) have very well defined the attributes and characteristics of the engineers and scientists of the twenty first century and these have been accepted by many in the developed world and the accrediting agencies like ABET. While India became a provisional member of Washington Accord (W.A.) in 2007 it could not graduate into becoming a signatory of the WA in 2009 when it was reviewed, due to non-acceptability of its current Accreditation processes by the other signatories of WA. In the current era of globalization and liberalization and given the demographic advantage India enjoys, the signatory status of India at WA would have helped the graduating engineers from the accredited institutions, be they in govt. or private sector, a global acceptability and employability of its engineers even in MNC's. The Technical Universities in India need to address these issues so that NBA is accepted as a signatory in Washington Accord for which review is due and we all need to ensure that we get there.

However, the quest for excellence and commitment to quality in all aspects of Engineering and Management education can only be fulfilled by having the following three attributes in every college and institute:

1. The teacher to student ratio which stands at 1 : 30 at present, in many of engineering institutions, must be brought down to 1 : 10 with the improved quality of teachers who are with better motivation and commitment to teaching and learning processes.
2. The curricular emphasis must shift from bookish oriented classroom teaching with only end semester examination based assessment, to continuous periodic assessment of classroom teaching with project oriented and knowledge application based learning. Further self learning and self evaluation metrics based on formative & quantitative assessment for graduate attributes of all the graduating engineers

should be ensured.

3. Emphasis must also be on providing e-journals, internet and web based learning resources in every subject for creating state-of art knowledge exposure with self learning at UG level and seminar based course practice for PG students. Students must be encouraged to go beyond the syllabus and explore the subject matter on the net for sharing knowledge at peer level with mentoring by the teacher to ensure depth and level of content being used.

The MTU has been trying to introduce certain changes in syllabi, curricula and the projects being undertaken by the students in colleges affiliated to it. While the changes being introduced will have to be gradual and by stages, the objective has to be clear from the beginning and will need to be in sync with the quality of the students and available faculty who will ultimately role out the curricula. The good heritage handed over from the U. P. Technological University days, has three very important components which will help in introducing these changes.

1. UPTU had been the first to introduce modular M. Tech. program to help the existing teachers with B. Tech. degree to avail the program for improving their qualifications and also attain better domain knowledge across the board.
2. It was also the first Technical University in India to introduce a course on Human Values and Professional Ethics to help the students in understanding and resolving the societal and professional dilemmas with scientific reasoning.
3. The UPTU Excellence Awards for the colleges, based on well defined criteria and open evaluation process, is a very novel and innovative step to encourage affiliating institutions to compete in a healthy manner and give their best performance for providing technical education to the enrolled students.

This is an internal quality assurance mechanism (TQM) which leads to self assessment and continuous improvement in the processes and methodologies as adopted by all the institutes. An important side line of this is that it helps the prospective students in choosing a college on the basis of these rankings. While we are trying to fine tune the method so as to make it more transparent, objective and applicable to different categories of institutions this initiative will go a long way in meeting the requirements of WA in the near future.

At MTU, we have realized the immediate need of strengthening the relationship with industry, R&D organizations and even with other academic institutions in India and abroad. Thus, we have two members from the industry in every Board of Studies (BOS) so that we keep in mind the requirement and aspirations of the connected industry. Also, we have distinguished academicians from other institutions like IIT's and IIM's being members of the BOS. Further, the university has initiated links with industry for undertaking real world problems as projects for its final year projects, based on virtual project teams on which any student from any affiliated college can join with mentors and guides from industry or any other institution. The current technology allows us to explore this global interaction for creating a well controlled but open platform.

The university is trying to establish a Web Portal which can act as a unifying, live, active, collaborative and dynamic virtual interaction space for sharing, serving and learning to explore the world of knowledge as it is going to be or actually as should be, here and now. The details of the same are available on our web site ([www.mtu.ac.in](http://www.mtu.ac.in)) as the road map for MTU Portal. We are also aware that nothing can replace a teacher and face-to-face interaction, but to mitigate the current shortage of good teachers in every college, we have started the experiment to reach out with content and other problems which students can share on the portal and use

the experience to generate special interest groups (SIG's) in different areas of knowledge and come out with new ideas, project schemes, products and even entrepreneurial thoughts.

The PG programs of the university are being remodelled to ensure that we train our PG students also in the art of content generation, content delivery, peer evaluation and collaborative learning. One of the major observation in my past 40 years of teaching has been to understand that while teaching is both a science and an art, but it can be taught and with practice one can become good at it. However, in India we have taken it for granted that if someone has done PG or higher studies, then he or she is fit to teach. This can be relied upon in some of the western countries especially US, where every Graduate student has to do teaching assistantship and thus learn through the hard way the art and craft of teaching but no such training is given to the PG students in India in a systematic and programmed manner. We believe that these are the major deficiencies in the PG programs being offered by the country and that has resulted in the acute shortage of teachers and researchers. The activity to design experiments and critical analysis of obtained results, have been introduced for all relevant courses, and where such practices would be difficult or too costly, the students are required to undertake special projects to strengthen the knowledge application part.

Lastly, the university is instituting the practice of standardized documentation of all its activities, processes and procedures so that all the stakeholders have clarity in interaction with the university and also can help us in fine tuning our activities as it affects them. This is expected to create the background for defining the services charter for all the stakeholders in coming months and encourage all to become partners and share these concepts across the affiliated institutions also.



## 9.4. STATE TECHNOLOGICAL UNIVERSITY, GUJARAT.

*N. R. Dave\**

Established in 2007 by Gujarat Act No.20 of 2007, Gujarat University (GTU) started functioning in August, 2008. The University had its first Vice Chancellor only in 2009. Dr A.K.Aggarwal, the Founder Vice Chancellor, is the renowned academician of international repute. He is slowly, perhaps single-handedly, translating his vision into significant initiatives on the educational arena of Gujarat.

GTU has following categories of institutes affiliated to it. These institutes were earlier affiliated to respective geographical jurisdiction state universities, viz. Gujarat, Saurashtra, Bhavnagar, North Gujarat, South Gujarat, Sardar Patel and Kutchch Universities.

Diploma programmes offered by Polytechnics were under State Technical Examinations Board from 1960.

### **Affiliated Institutes**

- 100 Engineering Colleges
- 90 Polytechnics
- 108 MBA Institutes
- 56 MCA Institutes
- 88 Pharmacy Colleges

**Establishment:** Though funding does not seem to be a problem, the University is inadequately

staffed even after four years.

**Building:** The University is presently housed in the Admission Building of the State College. Land is expected to be allotted in near future.

The University mainly seems to undertake three principal functions: Affiliation, Curriculum and Examination.

The University, in the matter of information flow across the institutions, conducting of examinations, and declaration of results, functions through effective e-governance.

The University has practically implemented paperless office including examinations.

GTU bagged the award of ICT enabled, University of the year, in E-India, 2009.

The University received Manthan Award South Asia, 2009 for the innovation and ICT in its applications.

In July 2011 the University received Best Jury Award for interface between academia and industry in Higher Education for the Project 'GTU Innovation Council'

### **Impact**

Four years is too short a period to evaluate differential impact of a State Technological University. The first batch of B.Tech. and

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*\*Former Vice Chancellor,  
North Gujarat University and Bhavnagar University,  
Formerly Director of Technical Education, Gujarat State*

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B.Pharm is yet to graduate this year. In the System of Several Affiliating Multi-disciplinary Universities (SSAMU) in the state, earlier the Faculties of Technology, Management and Pharmacy in each university enjoyed autonomy in designing curriculum, setting the question papers and undertaking assessment of answer-books. There was no interference whatsoever by any arm of the University. Faculty could undertake revision of curriculum as desired and also frequently if necessary. Teachers who taught the courses had the pride of participation in designing and revising curriculum and thereby owning the philosophy, objectives and instruments of delivery of curriculum. Members of the Faculty, including Dean, had frequent formal and informal interactions with the counterparts in the other universities in the state and also with Faculty in National Institutes and trends envisaged by ISTE. This provided opportunity for innovation and experimentation within the broad framework of AICTE norms. Now affiliating all these to one State Technological University would lead to regimentation and academic alienation, unless procedures of wide spread interactions and deliberations are structured to happen. Freedom to perceive, perform and excel underlined the concept of autonomous institutions advocated in NPE 1986 which did not recommend State Technological Universities, not by default but by design. It was duly deliberated and considered. As NPE recommended autonomous institutions under affiliating university, it was reasonably considered that thrust on autonomy of institutions and the concept of State Technological University are mutually exclusive.

Under the circumstances, the State Technological University is not likely to bring in any visible qualitative change. All important parameters of Institutes are decided by the national statutory council. The format of GTU for Local Inquiry Committee for affiliation is totally based on AICTE norms and requirements. The role of the State Technological University is then restricted to overseeing and monitoring the ground level operations of the institutes. This

was hitherto done effectively by the Dean of Faculty in each University assisted by team of experts for Local Inquiry Committee to review and renew affiliation

*Only positive aspect of the State Technological University is that it provides uniform yardstick of inter se merit, class and ranks, for all graduates of the state in each discipline. Earlier, major variations of standards were noticed among universities of the state, defying moderation of any kind.*

One centrally affiliating University replacing several decentralized affiliating universities does not add to the academic value of courses. The States which established State Technological Universities (Affiliating) have since been wiser and have now partially decentralized as numerous regional universities in the State. This amounts to going back to square one without loss of face.

In fact, contrary to the centralized university concept, the State of Gujarat has, in recent years, taken bold and far-sighted decision to establish Private Universities through the State Acts. Underlying policy thrusts and expectations are to promote autonomous organizational structures-private universities-leading to high quality education and research. They have freedom to perform, to excel and be accountable. As a result, Nirma University, DA-ICT University, Ganpat University, Pandit Deendayal Petroleum University, DD University, CEPT University and several others have been established and they cater to technology, pharmacy, management and sector specific disciplines. They have inherent stake in promoting globally competitive education and satisfying the societal demand of education of international standards. Institutions like this have potential to attract students from abroad, particularly from Asia.

#### **P. G. Departments and Research**

If a State really aimed at improving quality of education and building research culture, the State Technological University should have been

established as the non-affiliating residential University with its own campus and several strong post-graduate departments committed to offer Post-graduate and Doctoral Programmes. These departments would also serve as the apex think-tank for futuristic pursuits, advance training of teachers and linkages with universities abroad and national institutes in the country. Such a University would have the strong research and industrial consultancy work of repute. It may also do hand-holding for innovative projects and experimental initiatives in contents and delivery system for under-graduate education and continuing education. It may also serve as the state level central agency for Institute-Industry Interaction. It may acquire the stature to advise the State in policy formulation and proactively suggest measures of quality improvement.

Effectively, such a University would rate higher than any national institute like IIT.

### **Objects, Powers and Functions of the State Technological University**

Profile of a University is characterized by the objects, functions and powers listed in its Act. It is surprising that the Objects, Functions and Powers of the State Technological University are exactly the same as those of a non-affiliating private University in the State. Thus, there is no distinguishing feature built into the Act, in terms of these parameters.

Thus, neither 'objects' nor 'powers and functions' define distinct role and responsibility of the State Affiliating University for catering to the needs of all Engineering, Pharmacy and other professional institutes through affiliating relationship.

### **Polytechnics**

With the State Technological University Act, in Gujarat all polytechnics are now affiliated to this university. In the Act, 'College' has been defined as 'an institution teaching courses leading to a diploma or a degree'. There used to be the State Technical Examinations Board in Gujarat for more than fifty years. It established

its reputation for credibility, fairness and standards by vigorously enhancing its standards, industrial relevance in course offerings and scientific methods of design of curriculum and delivery system. It also had associated with it very useful organizational components of 'Curriculum Design Centre', 'Learning Resources Development and Deployment Centre', 'Centre for Continuing Education' thanks to the World Bank Assistance in two stages. In the interest of polytechnic education and in the interest of principal focus of the Technological University it would have been pragmatic to retain polytechnics in the fold of State Technical Examination Board, which had the wherewithal, established systems and the trained academia.

### **Concluding Remarks**

In view of the above observations, as stated earlier, it is too early to evaluate the impact of the Gujarat State Technological University. However, before venturing into establishing new State Technological University, a State should pose critical question: Whither State Technical University? What does it seek to achieve that can not be achieved through existing systems and institutions?

What is wrong with the present System of Several Affiliating Multi-Discipline Universities (SSAMU) in the state, each having suitable headquarter and serving higher education needs of its geographical jurisdictional neighbourhood areas?

- Is a University in SSAMU catering to the Faculty of Technology among others unwieldy? No, in fact proposed State Technical University covering all engineering colleges in the State would be too unwieldy for governance, leave apart good and effective governance.
- SSAMU provides for multidisciplinary platform for academics in higher education; State Technical University (STU) would be just isolated one-dimensional institute; it is contradiction in terms and spirit to call it a

'University'.

- SSAMU promotes several real time active nuclei of innovation, experimentation and 'sense of belonging' of faculty and visibility of contributions by the enlightened faculty of each university.
- Uniformity of curriculum and standards of examinations are not positive attributes to be built-in; in fact, it could be counter-productive as run-of-the-mill teaching-learning system. IITs and IIMs do not have any such uniformity by design; yet, they make the mark in the academic and professional world.
- It is often claimed that STU will provide best, modern and relevant curriculum of international standards. For that you don't need STU; 'WWW' can easily fulfil that need through access to this information. Though good, relevant and internationally acceptable curriculum has its merit and today each University under SSAMU is doing its best, what is more important that how well the curriculum is treated at the delivery point—in classrooms, laboratories and project works. University of SSAMU today accomplishes this very effectively.
- In SSAMU in Gujarat we have seen universities experimenting-of course conforming to the macro guidelines of UGC and AICTE - in interdisciplinary electives, credit system, fast-track movements of bright students, choice-based cafeteria system of learning options and various innovative measures for system of examination.
- It is amusing to note that the mother of affiliating university system - British Higher Education System - has done away this affiliating system and transformed institutions into Universities.
- National Policy on Education in mid-eighties has not mentioned STU, not by default but by design. The issue was debated, but in light of its recommendation for promoting as many institutions being made autonomous with all autonomy and accountability, the STU was adjudged to be anathema to the perception of academic decentralized freedom to grow as per collective wisdom of academicians of an institution.
- National Knowledge Commission has also reiterated and reinforced this need to provide autonomy to the institutions.
- No regimentation, No strangulating regulations, No fall-in-the-line commands. Every academician, worth is salt, has intellectual pride, has focus on students and reasonable knowledge of the ground reality. An external regulating system may define mandatory exit attributes of graduates in general terms, it may also specify entry attributes of learners; apart from these external parameters it should be left to the institutions how to design and provide processes within-without compromising standards and credibility.
- It is interesting to note that some of the States which launched State Technical Universities earlier are now decentralizing region wise-realization has dawned on them that STU is not workable proposition to achieve the objectives of quality enhancement.
- Several Universities of different states have international reputation for quality and excellence; they also have eminent alumni all over the world-do we expect these universities to lose their recognition and identity? If so, for what?
- If a State is keen to establish State Technical University, it may be given non-affiliating status, having its own campus with constituent schools and departments of post graduate studies and research. It may also have apex think-tanks to suggest pilot projects of innovations for guidance to the faculty of Technology in the State Universities.



## 9.5. ANNA UNIVERSITY OF TECHNOLOGY, MADURAI, TAMIL NADU.

*Dr. R. Murugesan\**

Anna University of Technology Madurai was established by the Act No. 27 of 2010 by the Government of Tamil Nadu to strengthen and improve the quality of higher education in the State of Tamil Nadu. This University is of affiliating type with over 60,000 students studying in 45 affiliated institutions spread across the districts of Madurai, Sivagangai, Dindigul, Ramanathapuram and Theni. The University has its main campus located at Madurai and two constituent colleges at Ramanathapuram and Dindigul. Besides a Government Aided Institution at Madurai, there is a Government Engineering College and a Central Electro Chemical Research Institute at Karaikudi. The University presently conducts 17 Undergraduate and 32 Postgraduate Programmes. The Anna University of Technology Madurai is also a member of the Association of Indian Universities.

Anna University of Technology Madurai is strategically located in Madurai and it caters to the needs of the southern part of Tamil Nadu where a significant thrust is needed in technical education.

The University envisions to improve the quality of technical education by providing world class teaching facilities with fully trained faculty members, digital libraries, well equipped laboratories and workshops, facilitate institution industry linkage and to encourage collaborative research in emerging areas like Nanotechnology,

Information Technology, Bio-Informatics, Robotics, Medical Electronics, Mechanics, etc. The University also offers unique specialized part-time UG and PG programmes for the working professionals. A Centre for Research has been established to offer M.S. (By Research) and Ph.D programmes in all disciplines

Smart class rooms with state-of-art-technology and world class computer laboratories are established in the University Campus to facilitate the students to update their knowledge at par with international standards. The University plans to have collaboration with National and International Universities and Industries for Research Projects, Student and Faculty Exchange Programmes.

### **Vision**

To make the University a World Class Institution by imparting quality technical education thereby generating efficient technocrats and scientists to cater to the emerging needs of the industry which will steer our country towards global recognition and appreciation.

### **Mission**

To improve the quality and knowledge of the students and faculty by providing world class research infrastructure in collaboration with leading global industries and organizations.

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*\*Vice Chancellor, Anna University, Madurai*

### Objectives of the University

- To provide technical education with an environment for learning.
- To encourage collaborative research in emerging areas like Nanotechnology, Robotics, Bio-Informatics etc.
- To create global partnership with industries and institutions for ensuring student and faculty exchange programmes.

### General

- Anna University of Technology Madurai was established by the Act 27 of 2010 of Government of Tamil Nadu and appointed First Vice-Chancellor on 21-06-2010.
- Within a short span of time the Anna University of Technology Madurai has achieved and established a fully functional University by setting up the Office of Registrar, Controller of Examinations, Centre for Affiliation of Institutions, Centre for Academics, Centre for Research, Centre for Student Affairs, Centre for Distance Education, Entrepreneurship Development Cell, Career Guidance Cell, Women Empowerment Cell and Sports Board.
- This University caters to higher education needs of over 60,000 students studying in 45 institutions.
- The University is empowered to award degrees under Section 22 of UGC Act 1957.
- The University has already been vested with the membership of the Association of Indian Universities.
- The University has made its mark by getting allotment of the Government land spanning around 83 acres for establishing the Madurai Campus and the construction is about to be started for an approximate estimate of Rs.150 Crores.
- Teachers are the pillars of the University and

the University has already completed its recruitment of Professors, Associate Professors and Assistant Professors.

- Recruitment of non-teaching administrative and technical staff was also completed successfully thereby creating a well structured official system.
- Academic schedule of the University is strictly followed and the first semester examinations were completed in January 2011 for the students belonging to various UG and PG degree programmes in 45 constituent and affiliated colleges. The examination and the valuation of answer scripts were carried out effectively and the results were released in a record time of just 12 days after the completion of examinations. This shows the commitment of the University towards building an efficient examination system for speedy valuation and declaration of results.
- The University is moving ahead in setting up of a new constituent college at Theni in the forthcoming academic year.
- The University has also successfully completed the Zonal Sports Meet wherein teams from all the colleges affiliated to Anna University of Technology Madurai had their representations.
- Entrepreneurship Development Cell conducts activities like Entrepreneurship Awareness Programme, NGO's meet and Achievement Motivation Training. Programmes are conducted.
- The Job Expo was organized for the benefit of the students of affiliated colleges in 27 corporate organizations participated. More than 4,000 students attended the Job Fair with 450 students getting their appointment orders and over 750 shortlisted for the final stage of the campus interview.
- International Women's Day was celebrated at the University premises, with all the

students taking an oath for working towards the upliftment and empowerment of women. A rally was organized by the NSS wing of the University with an active participation of over 2000 students. A giant size colorful Rangoli made of flowers spanning 30 feet X 30 feet was setup by the students which depicted the theme of "Save the Girl Child" and "Education for All". This glorious attempt by the students was sent to the Limca Book of Records for appreciation.

- Nine Memoranda of Understanding were signed with leading industries and other Governmental organizations for sharing of knowledge and collaborative development.
- The University plans to have Memoranda of Understanding with Universities across the globe for faculty and student exchange and indulge in collaborative research.
- The University also has introduced a strategy by which the students are sent to industries, leading research organizations, Universities abroad for doing their project works thereby gaining additional knowledge in their area of interest.
- The University is marching ahead in a planned manner with the support of the Syndicate Sub-Committee which meets periodically to manage the affairs related to the University.

### Academics

- The University in its Madurai Campus has started offering Post Graduate courses like M.E., M.B.A., M.C.A in regular and part-time mode and over 250 students are presently pursuing their degree programmes.
- B.E. (Part-Time) courses are offered in the Madurai, Dindigul and Ramanathapuram Campuses and over 450 students are pursuing their UG degree programmes.
- The Centre for Research has started its functioning by offering the Ph.D and M.S

(By Research) programmes over 400 candidates pursuing their research.

- Centre for Distance Education is offering ten specializations in the M.B.A Degree Programmes and M.C.A programme in a fitting manner to help the employed people who are unable to attend regular courses. This will pave way to enhance their qualification to a higher level, thereby catering to the ever increasing demand for professionally qualified and trained personnel in areas like Computer Applications and Business Management.

### Madurai Campus

1. Electrical and Electronics Engineering
2. Electronics and Communication Engineering
3. Computer Science and Engineering
4. Mechanical Engineering
5. Computer Applications
6. Management Studies

### Dindigul Campus

1. Civil Engineering
2. Electronics and Communication Engineering
3. Electrical and Electronics Engineering
4. Mechanical Engineering
5. Mathematics
6. Physics
7. Chemistry
8. English

### Ramanathapuram Campus

1. Civil Engineering
2. Mechanical Engineering
3. Electronics and Communication Engineering
4. Computer Science and Engineering
5. Electrical and Electronics Engineering
6. Mathematics
7. Physics

## 8. Chemistry

Technology for a sum of Rs.1.8 Lakhs.

## 9. English

**MoUs****Efforts**

- The University has sent several project proposals to the UGC and other central funding agencies.
- A proposal has been sent to UGC for Rs.5 Crores as one time catch up grant.
- Establishing a Nano Technology Laboratory at a cost of Rs.7 Crores and the DST has been addressed with the proposal.
- For setting up a digital library a proposal is sent to MIT for 47.58 lakhs and is under process.
- A University E-Governance proposal for 48.99 lakhs has been sent to MIT and is under review.
- A proposal on the research of Carbon Nano tubes at a cost of Rs.33 lakhs for which the DST funding is sought.
- The CSIR has been approached with a project proposal on Hydrogen bonded liquid crystals for a sum of Rs.19 lakhs.
- Proposals have been sent to the Tamilnadu State Council for Science and Technology for Creating Village Information System at a cost of Rs.3 lakhs, Influence of carbon nano tube in nano liquid crystal at a sum of Rs.3 lakhs and a Research Proposal on Development of functionalized Polymeric Material for Selective Fluoride removal at Rs.3 lakhs.
- Under DST Fast Track scheme, a proposal on Novel Mesoporous Material supported Re-Catalyst for Hydro-Denitrogenation reaction is applied for a grant of Rs.19 lakhs.
- A seminar proposal entitled, "Language Learning – Trends, Challenges and Approaches", has been submitted to the Tamilnadu State Council for Science and

1. The University has entered an MoU with the National Institute of Technical Teachers Training and Research to foster the Academic and Research collaboration in the areas of mutual interest, Exchange of academic information, scholarly information, materials and publications, Exchange of students and faculty, Sponsorship of cooperative training programmes, seminars, workshops and other academic meetings.
2. The University also has entered into an MoU with the Board of Apprenticeship and Training to share their Information, Experience, Infrastructure, Organisation of National and International Conferences, Seminars, Workshops, Symposia, Exchange of Faculties for various Academic, Placement & Research, Training for Working Professionals, Students & Corporates, Career Guidance Programmes, Placement Camps with leading Companies and Industries at University, Constituent and Affiliated College Campuses.
3. To develop the Entrepreneurship Development Skills among the students, the University has signed a MoU with the Centre for Entrepreneurship Development, Tamilnadu and has taken up initiatives to set up an Entrepreneurship Development Cell in the University.
4. To motivate and train the aspirants for the Civil Services Examinations, the University has entered upon a MoU with M/s.Alchemist Contemporary Education, Chennai to offer specialized training for the Preliminary and Main Examinations of the IAS programme.
5. A MoU has been signed with the Techno Forum Group, Pondicherry for having collaboration in the research and development, exchange of scientific and technical information, short term education

- and training programmes and supporting the International Journals published by the Anna University of Technology Madurai.
6. The Anna University of Technology Madurai and Enixs Technology Pvt. Ltd, has signed an MoU for jointly establishing the Altera EDA/SOPC Lab focusing on cutting end technologies in the areas of VLSI design. Through this MoU, the company has donated to the University, softwares for the worth of US\$ 25,000 which is being utilized by the students, research scholars and faculties of constituent and affiliated colleges.
  7. A MoU was signed with Sun Online Learning India Pvt. Ltd, for providing students an innovative and modern e-learning training online to students and young professionals aspiring to careers in business and management for career enhancement and personality development.
  8. The University has proposed to join hands with Wipro Technologies to implement the Mission 10X programme, which empowers the engineering faculties with innovative teaching techniques with which they can help learners to imbibe higher levels of understanding of subjects and effectively apply the concepts learnt to develop key behavioral skills required for employability.
  9. The University has joined hands with National Instruments, Bangalore to setup the NI Academy to train the students in the recent trends of virtual instrumentation.

#### **Seminars / Workshops / FDPs**

- Within a short period since its inception, the University has organized over 82 Seminars/ Workshops / National and International Conferences for the benefit of the students.





# Regency Institute of Technology

Approved by AICTE, New Delhi, Affiliated to Pondicherry University

YANAM - 533 464 (U.T. of Puducherry)

YANAM

UG Courses

## Bachelor of Technology (B.Tech.) 4 Years

Mechanical Engg.  
Computer Science & Engg.  
Electrical & Electronics Engg.  
Electronics & Communication Engg.

## Bachelor of Technology (B.Tech.) 4 Years

Proposed for the Academic Year 2012-13

Civil Engineering

PG Courses

## Master of Business Administration

MBA 2 Years

## Master of Technology (M.Tech.) 2 years

Electronics Engineering

## Master of Technology (M.Tech.) 2 years

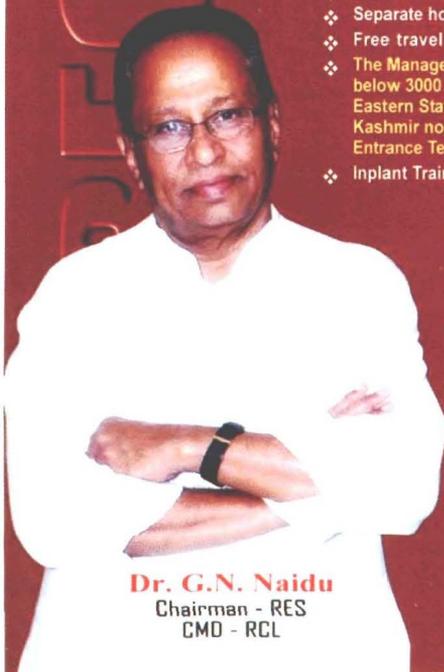
Proposed for the Academic Year 2012-13

Energy Technology

Distributed Computing System

## UNIQUE FEATURES OF THE COLLEGE

- ❖ Excellent Placement Record
- ❖ 8-8 Internet & Library facility
- ❖ 62 acres Pollution free environment
- ❖ Central University Curriculum
- ❖ Totally Ragging Free Campus
- ❖ Medical Officer in the campus
- ❖ Campus with Cultural Blend of Students from differnt parts of India.
- ❖ Highly disciplined and committed to impart education with moral values
- ❖ Separate hostels for Boys & Girls within the campus connected with Wi - Fi
- ❖ Free travel facility to home towns for students from Pondicherry, Karaikal & Mahe
- ❖ The Management is offering free seats upto 5% of total intake to the candidates securing ranks below 3000 in EAMCET, below 500 in CENTAC, also one free seat to each of the eight North-Eastern States of India, Himachal Pradesh, Uttaranchal, Chattishgarh, Jharkhand, Jammu & Kashmir nominated by the respective State Governments and for the top three rankers in RIT Entrance Test.
- ❖ Inplant Training facility in our own industries
- ❖ Committed to impart Quality Education
- ❖ Lab facility after working hours
- ❖ Best infrastructure
- ❖ NSS & NCC activities
- ❖ Best sports facilities, Gym & Yoga for hostellers
- ❖ Transport facility from surrounding areas upto 35 kms.



**Dr. G.N. Naidu**

Chairman - RES  
CMD - RCL



Established in the Year 2000

Adavipolam, Yanam-533 464 (UT of Puducherry),  
Ph: 0884-2314292, 2314307/308, Mob : 94401 78309, 97046 15888, 98661 32669.  
E-mail: principalrit@yahoo.in Website: www.regencyengg.com

# Regency Institute of Technology, Yanam

## INSTITUTE PROFILE

Regency Institute of Technology was established in the year 2000 in a sprawling area of 62 acres with adequate infrastructure facilities, well equipped labs, hostels for 800 students for boys and girls separately and with transport facilities for Day Scholars.



Dr. G. N. Naidu, the Chairman & Managing Director of Regency Ceramics Ltd, Yanam, a multi-core industry, is an Engineer himself and a visionary genius with commitment and service consciousness to the society. He has promoted a series of Industries and Educational Institutions from Primary to Post Graduate Level, creating ample of opportunities for employment and education to the people of this rural area. He has introduced anti-dowry system by offering employment to the couple who married without dowry irrespective of their qualification.

One industry was exclusively planned and established to create employment for widows and helpless women.

Dr. Naidu rendered Medical Services to the public and supplied drinking water to the door steps for the people of Yanam.

The Institute is located at a place with a serene and tranquil environment, free from noise and air pollution, which is an ideal location for an Educational Institution.



Since the College is affiliated to Pondicherry University, which is a Central University, it receives top grade curriculum and excellent academic programmes.

Regency Institute of Technology is an ISO 9001:2008 certified Institution, and is preparing to go for NBA Accreditation in 2012.

The Institute has an elegant state of the art infrastructural facilities including separate academic blocks for Computer Sciences, Electronics and Mechanical Engineering with well equipped laboratories, workshops, and amenities as per the AICTE norms. A large Residential Complex is provided consisting of three hostels – two for boys and one for girls

which can accommodate about 800 students. Faculty quarters with all facilities have been constructed to accommodate the Faculty and the Administrative Staff.



Regency Institute of Technology conducts an Entrance Test and admits the students through rank order taking into account, the marks obtained in the qualifying examination and by giving 50% weightage in the Test Performance.

Regency Institute of Technology encourages meritorious students by providing free education to the toppers at the Higher Secondary Level from all the 23 districts of Andhra Pradesh and also from other four parts of the Union Territory of Puducherry viz., Puducherry, Karaikal, Mahe and Yanam.

The Chairman of the College Dr. G. N. Naidu has introduced a scheme to promote National Integration and Cultural Interaction among the students from all over India by offering free seats to the students from North-Eastern States of India viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and other Northern States.



By virtue of its existence in Pondicherry state, students from Mahe, Karaikal and Puducherry join in RIT through Government Quota. Under National Integration scheme, students from Jammu & Kashmir, Uttaranchal, Chattishgarh, North Eastern states, Gurakland etc. are admitted here. Thus students from almost all over the country live together here in the campus where hostel facilities are also available manifesting a cultural blend by way of exchanging their languages, customs and living habits. Already students from these states have been graduated from this college and well settled in various Multi National Companies. Presently 16 students from these states are studying in various semesters.

Regency Institute of Technology has developed a system of educating students by focusing on the individual student's caliber and providing customized counseling depending on the learning skills of the students. This is the place where students are provided steady growth both personally and professionally with good technical and life skills.

The institute is known for its strict discipline by means of which the attitude of the students is corrected and the right personality traits are induced to enable them to receive Technical Education with values and virtues. RIT campus is totally ragging free.

Since the college is promoted by an Industrialist, the students have the opportunity to undergo in plant training and do live projects to gain practical knowledge of the subject and enhance their employability skills in various Multi National Companies.

A centre by name 'Regency Academy for Career Excellence' (RACE) has been setup in the college campus to provide coaching facility and prepare the students for different Competitive Examinations, viz., Engineering Services, Central Services (IAS, IPS etc.), GRE, TOEFL, GMAT, GATE, etc. The coaching in this centre is provided beyond the college hours by Qualified Faculty.

RIT has a separate cell for Training & Placement where additional training is imparted in the areas of soft skills and technical skills. The placement cell strives to make the students acceptable by the industry.



The Governing Body of Regency Institute of Technology has prominent Industrialists, Educationalists and Professionals as its members with deep commitment for the promotion of Quality Technical Education. Apart from the Management Representatives, the Board has one nominee from AICTE, two nominees from Pondicherry University, one nominee from Government of Puducherry, three Entrepreneurs, and one Educationist apart from three Faculty Representatives.

The institute is presently offering the following UG Courses in Engineering and PG Courses in Engineering and Management:

**U.G. Programmes:**

1. Computer Science and Engg. (CSE)
2. Mechanical Engg. (ME)
3. Electronics and Communication Engg. (ECE)
4. Electrical and Electronics Engg. (EEE)

The Institute is introducing B.Tech programme in CIVIL ENGG from the academic year 2012-13

**P.G Programmes :**

1. M.Tech in Electronics Engineering
2. Master of Business Administration (MBA)

The Institute is introducing M.Tech Programmes in the following disciplines from the academic year 2012-13

1. M.Tech in Distributed Computing System
2. M.Tech in Energy Systems

**Non – Engineering Education**

Regency group is imparting Non – Engineering Education also in the following areas in addition to the Management Course.

1. Nursing (B.Sc)
2. Education (B.Ed.)

We foster the growth of innovative Professionals, Scientists and Engineers who are firmly grounded academically, enjoy the trust and confidence of the community at large. We want Regency Institute of Technology to be the dream of every child who wants to make the world a better place.

The objective of our Institute, in other words, is to nurture the growth of innovative people and to send them into society as outstanding individuals with fundamental knowledge, creative minds and excellent communicative skills.



Year of  
establishment  
1970

## Karmaveer Kakasaheb Wagh Education Society, Nashik

K. K. Wagh Education Society was established in 1970 with the aim of imparting quality education. It was founded by Late Padmashree Karmaveer Kakasaheb Wagh, a well-known social worker.



### A) Technical Institutes run by the Society

<b>1) K. K. Wagh Institute of Engineering Education &amp; Research(4 Yrs. Degree)</b>	<b>Intake</b>	8] Computer Engineering (2 <sup>nd</sup> Shift)	60
		9] Information Technology (2 <sup>nd</sup> Shift)	60
1] Computer Engineering	120	10] Mechanical Engineering (2 <sup>nd</sup> Shift)	60
2] Electronics & Tele-Communication	60	11] Electronics & Telecom. (2 <sup>nd</sup> Shift)	60
3] Production Engineering	60	12] Electrical Engineering (2 <sup>nd</sup> Shift)	60
4] Civil Engineering	60	<b>3) K. K. Wagh Women's Polytechnic, Nashik (3 Years Diploma)</b>	<b>Intake</b>
5] Mechanical Engineering	120	1] Computer Technology	60
6] Electrical Engineering	60	2] Information Technology	60
7] Chemical Engineering	60	3] Electronics Telecommunication	60
8] Information Technology	60	4] Electronics & Communication Engineering	60
9] Electronics Engineering (2 <sup>nd</sup> Shift)	60	<b>4) K. K. Wagh Polytechnic, Chandori, Tal. Niphad, Dist. Nashik. (3 Yrs. Diploma)</b>	<b>Intake</b>
10] Mechanical Engineering (2 <sup>nd</sup> Shift)	60	1] Computer Engineering	60
11] Electrical Engineering (2 <sup>nd</sup> Shift)	60	2] Electrical Engineering	60
12] M.E. Production (Manufg. & Automation)	18	3] Mechanical Engineering	120
13] M.E. Civil (Structures)	18	4] Electronics & Telecomm. Engineering	120
14] M.E. Electrical (Control Systems)	18	5] Civil Engineering	60
15] M.E. Computer	18	<b>5) K. K. Wagh College of Agricultural Engineering and Technology</b>	<b>Intake</b>
16] M.E. Electrical (Power System)	18	B Tech. (Agril. Engg.) (4 yrs.)	80
17] M.E. Electronics & Telecomm. (VLSI & Embedded System)	18	<b>6) K. K. Wagh College of Agriculture.</b>	<b>Intake</b>
18] M. B. A.	60	B.Sc. (Agriculture) (4 yrs.)	120
19] M.C.A.	60	<b>7) K. K. Wagh College of Food Technology.</b>	<b>Intake</b>
<b>2) K. K. Wagh Polytechnic, Nashik (3 Yrs. Diploma)</b>	<b>Intake</b>	B. Sc. (Agri. Food Technology)	40
1] Computer Engineering	120	<b>8) K. K. Wagh College of Agricultural Bio-Technology, Nashik</b>	<b>Intake</b>
2] Information Technology	60	B.Sc. (Agri. Bio-Tech.) (4 yrs.)	40
3] Mechanical Engineering	60	<b>9) K. K. Wagh College of Agriculture Business Management, Nashik</b>	<b>Intake</b>
4] Electronics & Telecom.	60	B. Sc. (Agri. Business Management)	40
5] Electrical Engineering	60		
6] Chemical Engineering	60		
7] Civil Engineering	60		

### **B) Non-Technical Institutes run by the Education Society**

- 10) K.K. Wagh Arts, Commerce, Science and Computer Science colleges, Panchavati, Nashik
- 11) K.K. Wagh Arts, Commerce, Science and Computer Science colleges, Chandori, Tal.Niphad. Dist.Nashik
- 12) K.K. Wagh Arts, Commerce, Science and Computer Science colleges, Kakasaheb Nagar, Tal.Niphad. Dist. Nashik
- 13) K.K. Wagh Arts, Commerce, Science and Computer Science colleges, Bhausaheb Nagar, Tal.Niphad. Dist. Nashik
- 14) K. K. Wagh College of Education, Nashik
- 15) K. K. Wagh College of Fine Arts, Nashik
- 16) K. K. Wagh College of Nursing, Nashik
- 17) K. K. Wagh Vidyabhavan & Junior College, Bhausaheb Nagar, Tal: Niphad.
- 18) Gitai Wagh Kanya Vidyalaya, Bhausaheb Nagar, Tal: Niphad, Dist. Nashik
- 19) K. K. Wagh Secondary School, Pimpalas Ramache, Tal:Niphad.
- 20) K. K. Wagh Secondary School, Panchavati, Nashik.
- 21) K. K. Wagh English School, Amrutdham, Panchavati, Nashik
- 22) K. K. Wagh English School, D.G.P. Nagar, Nashik
- 23) K. K. Wagh English School, Gangapur, Nashik

**: Central Office :**

**Hirabai Haridas Vidyanagari, Amrut Dham, Panchavati, Nashik - 3**  
Ph.No.(0253) 2512876 Ext. 135, 6521455(D.) Fax.(0253) 2621183, 2518870  
**Web :** [www.kkwaghedusoc.org](http://www.kkwaghedusoc.org) **E-mail :** [kkwco@rediffmail.com](mailto:kkwco@rediffmail.com)

### **K. K. Wagh Institute of Engineering Education & Research, Nashik**



#### **VISION**

Empowering through Quality Technical Education

#### **MISSION**

Committed to serve the needs of the society at large by imparting state -of-the-art Engineering education and to provide knowledge and develop Attitudes, Skills and Values, leading to establishment of quality conscious and sustainable research oriented Education Institute.

#### **INTRODUCTION**

The Engineering College was established in the year 1984, by Karmaveer Kakasaheb Wagh Education Society in Niphad Teh asil of Nashik district. However considering demand from students, the college was shifted to Nashik in 1986.

The College which was started with three branches like Computer Engineering, Electronics Engineering & Production Engineering, has now reached to 08 branches in first shift and 03 branches in second shift with the addition of Civil, Mechanical, Electrical, Chemical and IT branches. Initially each of these branches had 60 student annual intake. The demand by students made us to increase the intake of Computer and Mechanical Engineering to 120 and change the nomenclature of Electronics Engineering to Electronics & Tele-Communication Engineering.

In the year 2006-2007 the M.E. Production (Manufacturing & Automation) was introduced as first PG course with intake of 18. Subsequently in the year 2007-2008, M.E. Civil (Structure)-18, M.E. Electrical (Control Systems)-18, along with MCA having 60 as intake were started. MBA (with 60 intake) was introduced from academic year 2008 -2009. In the year 2010 -2011 M.E. Computer & M.E. E&TC (Embedded & VLSI System) with 18 intake each were started. In the year 2011-2012, M.E. Electrical (Power System) with 18 intake was introduced. Two UG courses in second shift (Mechanical and Electronics) were started in 2010 and Electrical Engineering (2<sup>nd</sup> Shift) with 60 intake each was introduced in 2011. This has pushed the annual intake of Institute as 1008 making the Institute, intake wise one of largest Institutes in Maharashtra.

AICTE, New Delhi in 2004, gave its approval to change the Name of college as K. K. Wagh Institute of Engineering Education & Research to focus on research activity. To prove the worth of changed name Institute has started the Research Center from academic year 2008 -09 in Production, Civil and Electrical Engineering.

### **LIBRARY**

The Central Library named after famous poet "Kusumagraj" has infrastructure more than the prescribed by AICTE with almost 2100 Sq. M. area divided in G+3 floors (One of which is over night reading room for students). The e-library facility is available with subscription of multi user journals available through IEL/IEEE, ASME, ASCE, Elsevier (Science Direct) and EBSCO.

### **HOSTEL**

Hostels, with Wi Fi net connection, Hot water for 24 hours and all other modern amenities. Hostel can accommodate 400 Male student and 300 Female Students. There is separate mess for boys and girls with medical facility.

### **TRANSPORT FACILITIES**

The Education Society has started its own bus service for the students of this Institute covering most of the city area.

### **SPORTS / GYMNASIUM**

Ultra modern Gymnasium and Sports facilities are the assets of this Institute and are unique in Nashik Zone. Area of play ground with running track: 2400 Sq.M. A Gymnasium of 639 Sq. M. area is provided with necessary advanced equipments like Multi – Gym, Sauna and Steam Bath.

#### **OUT DOOR GAMES**

Cricket, Volley Ball, Lawn Tennis, Kabaddi, Badminton, Kho -Kho, Basketball, Javelin Throw, Disc Throw, Shot Put, etc.

#### **INDOOR GAMES**

Carom, Table Tennis, Yoga etc.

### **ACADEMIC RECORDS**

#### **Final year University toppers in the last six years**

<b>Year</b>	<b>Branch / Class</b>	<b>Name</b>	<b>Rank</b>
2005	B.E. Chemical	Sandip A. Kadam	1 <sup>st</sup>
2005	B.E. Production	Ms. Puja Safaya	1 <sup>st</sup>
2007	B.E. Electronics	Chairal Purkar	1 <sup>st</sup>
2010	B.E. Electronics	Ms. Harpreet Kaur	1 <sup>st</sup>
2010	B.E. Civil	Mr. Mayur Patil	1 <sup>st</sup>
2011	B.E. Mechanical	Mr. Jaspreet Singh	1 <sup>st</sup>

## PLACEMENTS

Placement section is quite strong. All major corporate players like Reliance Energy, TCS, BOSCH, (formerly MICO), Mahindra & Mahindra, Crompton Greaves, Siemens, Persistent, Sahara Info System, Persistent System Ltd., HSBC S/W Development Pvt. Ltd., HDFC, KPIT Cummins, Torrent, India Bulls Group, Syntel, L&T Infotech, Raymond, Datamatics, Fin IQ, Tech. Mahindra etc. along with many other companies are visiting the Institute regularly for placements.

## EXTRA CURRICULAR ACTIVITIES

- ISTE Student chapter has received best chapter award for four times.
- CSI student branch has bagged best branch award for fourth time.
- IE(I) student chapter won best chapter award twice at National level.
- Industrial tours and field visits are organized regularly.
- IBM Research Center has been established with Computer Engineering Department.
- Guidance for competitive examinations.
- Institute is a recognized TOEFL IBT Center.
- Active NSS unit with enrollment of 250 students.

## PRIZES WON AT NATIONAL LEVEL BY STUDENTS

1. Motorola Scholar award for project on "Interactive video conferencing toolkit for remote health care" (Rs. One lac)
2. Mechanical Engineering students secured position amongst the top 5 teams in the BAJA competition (Making of an All Terrain Vehicle) organized by SAE for first time in India at Nation level. The Event was held at Indore in association with ARAI. The team won SECOND prize for Engineering design and THIRD position in Endurance Race.
3. Master Sanmeel Bhumkar, final year student won the Gold Medal at 1<sup>st</sup> Indian Rim Asian University Games 2005 held at Western Australia in Lawn Tennis.
4. Mechanical Engineering students won third prize (Rs.25,000) at the K. C. Mahindra Award Design Competition
5. Mr. Prathmesh Karmalkar student of our Computer Engineering branch was awarded India patent in the month Dec. 2011.

## NATIONAL LEVEL ACTIVITIES

Every year Institute organizes National & State level activities through different departments. The level of participation in these activities during year 2010-2011 is detailed below:

Event Name	Organizing Department	Level of activity	No. of Participants
Equinox	Computer	National	1500
Itiazza	IT	National	1250
IET-Karmaveer Expo	Electrical	National	460
Mecheaven	Mechanical	National	1700
Force	Civil	National	1000
EUREKA	E & TC	State	150
Invasion	Production	National	900

BALASAHEB D. WAGH

**President**

**K. K. Wagh Education Society, Nashik**

DR.K.N.NANDURKAR

**Principal**

**K. K. Wagh Institute of Engineering  
Education & Research, Nashik**

which can accommodate about 800 students. Faculty quarters with all facilities have been constructed to accommodate the Faculty and the Administrative Staff.



Regency Institute of Technology conducts an Entrance Test and admits the students through rank order taking into account, the marks obtained in the qualifying examination and by giving 50% weightage in the Test Performance.

Regency Institute of Technology encourages meritorious students by providing free education to the toppers at the Higher Secondary Level from all the 23 districts of Andhra Pradesh and also from other four parts of the Union Territory of Puducherry viz., Puducherry, Karaikal, Mahe and Yanam.

The Chairman of the College Dr. G. N. Naidu has introduced a scheme to promote National Integration and Cultural Interaction among the students from all over India by offering free seats to the students from North-Eastern States of India viz., Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and other Northern States.



By virtue of its existence in Pondicherry state, students from Mahe, Karaikal and Puducherry join in RIT through Government Quota. Under National Integration scheme, students from Jammu & Kashmir, Uttaranchal, Chattisgarh, North Eastern states, Gurakland etc. are admitted here. Thus students from almost all over the country live together here in the campus where hostel facilities are also available manifesting a cultural blend by way of exchanging their languages, customs and living habits. Already students from these states have been graduated from this college and well settled in various Multi National Companies. Presently 16 students from these states are studying in various semesters.

Regency Institute of Technology has developed a system of educating students by focusing on the individual student's caliber and providing customized counseling depending on the learning skills of the students. This is the place where students are provided steady growth both personally and professionally with good technical and life skills.

The institute is known for its strict discipline by means of which the attitude of the students is corrected and the right personality traits are induced to enable them to receive Technical Education with values and virtues. RIT campus is totally ragging free.

Since the college is promoted by an Industrialist, the students have the opportunity to undergo in plant training and do live projects to gain practical knowledge of the subject and enhance their employability skills in various Multi National Companies.

A centre by name 'Regency Academy for Career Excellence' (RACE) has been setup in the college campus to provide coaching facility and prepare the students for different Competitive Examinations, viz., Engineering Services, Central Services (IAS, IPS etc.), GRE, TOEFL, GMAT, GATE, etc. The coaching in this centre is provided beyond the college hours by Qualified Faculty.

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The institute is presently offering the following UG Courses in Engineering and PG Courses in Engineering and Management:

**U.G. Programmes:**

1. Computer Science and Engg. (CSE)
2. Mechanical Engg. (ME)
3. Electronics and Communication Engg. (ECE)
4. Electrical and Electronics Engg. (EEE)

The Institute is introducing B.Tech programme in CIVIL ENGG from the academic year 2012-13

**P.G Programmes :**

1. M.Tech in Electronics Engineering
2. Master of Business Administration (MBA)

The Institute is introducing M.Tech Programmes in the following disciplines from the academic year 2012-13

1. M.Tech in Distributed Computing System
2. M.Tech in Energy Systems

**Non – Engineering Education**

Regency group is imparting Non – Engineering Education also in the following areas in addition to the Management Course.

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## 9.6. KONERU LAKSHMAIAH UNIVERSITY, VIJAYWADA, ANDHRA PRADESH.

*Dr. G. L. Datta\**

Koneru Lakshmaiah (KL) University is situated in a spacious 50-acre campus on the banks of Buckingham Canal of River Krishna, eight kilometers from Vijayawada city. Built within a rural setting of lush green fields, the Institute is a virtual paradise of pristine nature and idyllic beauty. The campus has been aptly named "Green Fields" and the splendid avenue of trees and gardens bear testimony to importance of ecology and environment. The campus ambience is most befitting for scholastic pursuits. The Institute has a built up area of around 80,000 sq.m. and has over 84 laboratories.

The University is a pioneer in the field of engineering education and research in private sector in the state of Andhra Pradesh. It was established as Koneru Lakshmaiah College of Engineering in the year 1980. The college was made Autonomous in the year 2006 and in 2009 it is accorded Deemed to be University status.

- All UG programs of the institution are accredited by National Board of Accreditation (NBA) of AICTE, 6 of them for 5 years – only private engineering institution in Andhra Pradesh to get 6 branches accredited for 5 years.
- The institution is accredited by National Assessment and Accreditation Council (NAAC) of UGC with 'A' grade with a CGPA of 3.76 on 4 point scale – the highest CGPA for any engineering institute in India.
- The institute is recognized as a Public Funded Research Institute by DSIR of Government of India- a recognition for the excellent research environment in the institute.
- The faculty of the institute, numbering 470+ out of which 100 doctorates and 180+ pursuing their Ph.Ds is one of the best in any engineering institute.
- The faculty student ratio of 1:13.8 is the best in the state of Andhra Pradesh.
- A mentor is allotted for each 20 students to counsel the student in their academic as well as personal problems
- KLU has a separate Communication & Soft Skills (CSS) Dept. with more than 40 professional trainers.
- KLU is a member in the prestigious "All India Virtual Class Room" initiated by MHRD. This network enables the students to take advantage of the facilities such as virtual class rooms, virtual laboratories, Journal sharing through online, video conference lectures and many more. One Gbps backbone is used for this network
- Advisory board in every department with top academicians from IITs & foreign universities and eminent personalities from industries.
- The University has a strong Industry Relations

*\*Vice Chancellor, K. L. University.*

& Placement Department (IRP) and has been consistent in achieving 100% placements for the past seven years.

- Freshman Engineering Dept. (FED) is a unique feature for 1st year Engineering students.
- A separate student welfare and guidance division headed by Dean-student welfare.
- 110 Mbps hi-speed internet connectivity round the clock in the campus and in the hostels
- Discipline is the hallmark with 100% ragging free environment.
- Special Centres of Excellence in association with Microsoft, IBM, Oracle, CISCO (CCNA), Adobe, ZENSAR Lab in the campus.
- First academic institution in India to have Wi-Fi 'n' enabled campus.
- e-Learning is the mode of teaching in the campus.
- Entrepreneurship Cell in association with IIT Chennai.
- Yoga and Meditation classes for the students.
- Technology forums & hobby clubs for students.
- Excellent facilities with International standards for all kinds of indoor & outdoor games & sports with coaches for all major games & sports.
- Facilities like PCO/STD/ISD, Fax, Post Office, Bank with ATM in the campus.
- Guest houses in the campus in the city.
- Research Oriented Problem Solving Techniques.

### **Industry Relations Department (IRD)**

The IRD caters the following activities to all the Departments of the University

- Industry Participation in Curriculum Planning
- Continuing Education and Internship
- Industrial Training for Students
- Industrial Visits and Tours for Students
- Projects Consultancy
- Collaborative Programmes with Industry
- Guest Lectures from Industry
- Extension Lectures
- Placement
- Student Counseling and Guidance
- Student Career Development
- Entrepreneurship Development Programme
- Coaching Programs
- Alumni Interaction

### **Research at the University**

Quality Research and Consultancy are given top priority in the University Research strength of University covers diverse disciplines. There are 100 faculty members with Doctoral degree and about 180 are pursuing their Research leading to Ph.D. The outcome of some of the funded projects is being submitted as Research thesis by the scholars.

### **Research Admissions**

During the academic year 2010-11 and 2011-12, 72 and 80 scholars respectively covering 15 departments were given admission to take-up their research work. Fellowships are being offered to the full time scholars. Quality research out put is ensured through regular monitoring of the work. Interdisciplinary Research is also encouraged.

### **Research Groups**

In order to enhance R&D and Consultancy

activities within the University, 43 faculty Research groups are functioning effectively. These groups also deliver quality courses and take research into the classroom. Each group is headed by a Senior Professor with Ph.D. These are actively involved in setting Research labs and also obtaining the funded Research and Consultancy projects from Research organization and Industries.

### Library

Central Library occupies a place of pride in KLU and is an essential component of the institute's outstanding research and education mission.

The Central Library has an excellent collection of Books, Journals and Non Book Materials is Science, Engineering, Technology, Humanities and Management. Refer Table 1.

### Library Computerization

The Central Library has computerized all its activities including Acquisition, Cataloguing, Circulation, and stock verification using in-house software. The Online Public Access Catalogue (OPAC) can be accessed on Internet and Intranet. The Central Library used Barcode

and Biometric technology for computerized circulation system and stock verification. The Central Library has developed in-house facility for bar coding of books and ID cards

### Accommodation

The University has separate hostels for boys and girls with well furnished rooms and modern amenities. The overall atmosphere is very conducive for the students to concentrate on studies.

- A state-of-the-art kitchen and spacious dining area has been provided for both the hostels.
- Generators have also been provided as a power back up.
- Emphasis has been laid on hygiene and cleanliness for healthy living. A customized menu caters to the student needs and it keeps changing according to their tastes.
- Teaching staff to address academic and personal problems of the students.
- Round-the-clock security, communication, dispensary facilities are also available.
- Wi-Fi enabled hostels.

Resource	Numbers
No. of Volumes	90,000+
No. of Titles	27500+
Back Volumes	2450+
Project Reports	2420+
No. of CDs & VCDs	4826
No. of Reference Titles	12195
Journals / Magzines / Proceedings	
Online / hardcopy	6706
E-books	1100
Online Lectures	300
Online Courses	2500
Subscriptions : ACM, IEEE, ASME, Springer Link, EBSCO, DELNET, PROWSE	

Table 1. Resources in Library

### The Girls Hostel

The girls hostel is in the campus itself and houses 1200 students. Rooms with attached toilets as well as A.C. rooms and suite rooms with modern furniture and separate study room are also available.

- The University has a spacious canteen with latest equipment and hygienic environment which provides quality food and prompts service and caters to needs of all the students and staff.
- A Cafeteria of 1500 Sq.m. is available for boys and girls and Staff. It has a capacity for 300 boys and 200 girls and 100 staff. Common area for day scholars is also provided.

### Sports

The University encourages students to explore their latent talents by providing good games and sports facilities. The institute is equipped with all indoor and outdoor games facilities

State-of-the-Art Indoor stadium of 3,000 sq.m.with:-

- 4 wooden Shuttle Courts/ Basketball Court
- Yoga and Meditation Center
- Dramatics
- 8 Table Tennis Tables
- Hobby Center
- Gymnasium for Girls
- Gymnasium for Boys
- Multipurpose room with Chess, Carroms etc.

### Awards & Prizes:

Winning the prizes and awards has been a

regular practice at KLU. All the major games and sports are supervised by well trained and qualified coaches because of which, our students have been winning prizes at Zonal, State, National and International levels apart from Inter-University level.

### Recent Achievements in 2010 - 11

- The University is permitted by Association of India Universities (AIU) to participate in All India & South Zone Inter University Tournament (Games & Sports).
- Stood 1st in National Chess Tournament held in Chennai.
- Won Gold Medal in South Zone University Swimming Competition.
- Won Gold Medal in National Level Yoga Competition in Goa.
- Shuttle Badminton Coach worked as an official in Commonwealth Games held in New Delhi in 2010.
- Lady Table Tennis Coach functioned as an important official at National Level Tournament.
- Coaches are available at the University for various sports and games namely Volleyball, Gymnasium (Boys), Table Tennis (Boys & Girls), Shuttle Badminton (Boys & Girls), Yoga, Meditation, Basketball, Football, Cricket, Lawn Tennis.

Table 1 shows medals won during the last four years

Year	Inter University	State	National	International
2010-11	17	5	4	2
2009-10	19	3	1	1
2008-09	15	2	2	-
2007-08	12	2	2	1

Table 1: Medals won during the last four years:

### Transportation

- The institution runs 40 buses covering all the important points in Vijayawada City, Mangalagiri, Guntur & Tenali towns.
- Transport is available 24 hrs in case of any emergency in the institute / hostels.
- Transportation is available for conducting industrial tours and visits etc.
- Regular transport facility available up to 9 pm.

### Open Air Theatre

The college has an open air auditorium, with seating capacity of 3500 for conducting various cultural activities through the year.

### Health Centre

A full-fledged health center with all the facilities is established to cater to the needs of the students, staff, Faculty and to the general

public in the adopted villages. It employs three doctors (Homoeopathy, Ayurvedic & Allopathy). A vehicle is provided for the purpose of emergency. The University has signed an MOU with a multi specialty hospital.

### Safety on Campus

The welfare of the staff and the students is top priority in the University and campus at all times. Adequate safety measures are followed throughout the campus in the best possible manner with well trained security guards. Sophisticated fire alarm systems and foam type fire extinguishers are strategically positioned throughout the campus including canteen, hostels and guest house. Training in safety and first aid is conducted as a routine for the staff and students.



## 9.7. ATAL BIHARI VAJPEYEE INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT, GWALIOR.

*Dr. S. G. Deshmukh\**

### 1. Preamble

Atal Bihari Vajpeyee (ABV) Indian Institute of Information Technology and Management (IIITM), Gwalior, is a premier Institute set up by Ministry of HRD, Government of India in 1997-98, with the objective of imparting quality education and conducting high quality research in the cusp areas of Information Technology and Management. The institute is the first in the series of MHRD institutions in the IIIT family. It is a novel experiment of synergizing IT and Management. The institute is fully residential, spreads across 160 acres of land, and has state-of-the-art infrastructure. The institute exclusively offers postgraduate and doctoral level programmes. The institute got the status of deemed university in 2001. The mandate of the institute is summarized in its vision : "Global Excellence in Knowledge Economy". The institute has academic collaboration with international institutes and universities from abroad. It is the first ISO 9001:2008 certified MHRD institute in IIIT family.

It may be noted that, for a country like India, there is, a huge demand for high quality UG education, and from supply side, there is no dearth of good quality candidates and institutes offering UG programmes. However, good quality candidates at PG level, particularly PhD, are a big challenge. ABV-IITM takes pride in having taken this challenge with a conscious focus on PG education with a deliberate tilt towards PhDs. The institute has contributed to the

technical manpower scenario by offering its doctoral output in IT and Management. The high quality product out of its PhD programme is working in IITs.

It may be worthwhile as to dwell on what are the typical characteristics of a good university?

### A good university must have

- a good governance structure which facilitates decision making, and enables transparency, and wider participation of various stakeholders.
- good academic programmes which enables students to develop a good perspective and instill a sense and commitment towards life long learning.
- faculty who are creating, not just conveying, knowledge in their fields, and who are engaged in their disciplines, beyond the university itself.
- facilities current and adequate to teach the subject matters it offers, including labs, and libraries.
- ties to the fields with which it works - for example, the business school should have connections to the business community.
- a focus on continuous improvement whereby the search for excellence is never ending .
- a global worldview, not just a national one. It should accept students who are eager learners and capable of learning. It should care

*\*Director, ABV-Indian Institute of Information Technology & Management, Gwalior.*

about learning, both for its students and its faculty and staff.

- It should foster a love of learning, not just train people for specific jobs, so there should generally be an atmosphere of intellectual curiosity on campus.

This paper is an account to take stock of above characteristics with reference to ABV-IIIITM Gwalior.

## 2. Governance Structure

The institute has a Board of Governors (BOG) which represents members from Government (Both centre and state), industry, academia and the institute faculty. The BOG sets the policy guidelines and meets periodically.

Finance Committee and Building & Works Committee is responsible for issues related to Finance and building/construction/work related issues. MHRD is represented in these committees. The academic issues are deliberated by the Senate representing faculty members and nominees of BOG representing society, and industry. At the operational level, there are various committees responsible for taking decisions related to purchases, academics, faculty and staff matters.

## 3. Academic Programmes

The academic programme commenced in 1998 with post graduate diploma in IT and Management (as the Institute had not got the deemed university status then). In 2001, the institute was recognized a deemed university by the UGC. It started offering M. Tech, MBA and Ph D programme. It continues to be a postgraduate school with an annual intake of 120 students in integrated PG programmes, 100 M.Tech, and 40 MBA students. The institute has on its roll about 35 Ph. D. students.

### 3.1 Integrated Post-Graduate Programme

The Institute offers a five - year dual degree Integrated Post Graduate (IPG) programme

leading to dual degree of Bachelor of Technology and Master of Technology/ Master of Business Administration. This is a flagship programme of the institute as reflected in terms of its acceptability by industry, parents and high ranked candidates from AIEEE examination.

### 3.2 Master of Technology Programme

The Institute offers a four-semester Master of Technology programme (M.Tech) in Computer Science and Engineering. The programme offers specializations in the areas of VLSI, Digital Communication, Advanced Network, and Information Security.

### 3.3 Master of Business Administration Programme

The Institute offers a four-semester programme in Master of Business Administration (MBA). The focus of the programme is to integrate IT with business processes. The programme offers various courses with focused electives in Marketing, Human Resource Management, IT & Systems, Operations and Finance.

### 3.4 Doctoral Programme

The institute offers structured doctoral programme in the areas of Information and communication Technologies, Management and Applied sciences.

## 4. Critical Success Factors

The institute has earned a place of recognition. Several factors have contributed to this.

### 4.1 Competent Faculty

ABV-IIIITM follows IIT norms in recruitment of faculty. All faculty must have Ph.D. They are selected following a rigorous process including seminar presentation and personal interview before the selection committee. The seminar is attended by all faculty members of the institute. Our faculty is on the editorial boards of several

journals. The faculty has won several professional awards and recognition such as Best Paper Award, Young Scientist Award, Career Award by AICTE etc. The institute is also able to attract adjunct faculty from industry.

#### 4.2 High Quality Students

The institute is able to attract high quality students reflected in their AIEEE Ranks or GATE/CAT/JMET scores. Students have won several competitions and awards. They have also won Open Source Software Competition held at several institutes, and have been at the top position of almost every International and National competition.

#### 4.3 Focused areas of research

The institute has developed strong research themes in IT, Management, and Applied Sciences. The following is an indicative list of these areas.

- Image Processing;
- Biomedical Image Analysis,
- Wireless Ad-hoc Networks,
- Grid computing,
- Quantum computing ,
- Mobile Computing.
- Biometrics,
- Information Security,
- Soft computing,
- Artificial Intelligence,
- Modeling and Simulation of Biological and Environmental Systems,
- Datamining,
- Evolutionary Algorithms,
- VLSI Design,
- Nanoelectronics,
- Robotics
- Supply Chain Management,
- Software Project Management,
- IT Enabled Marketing,
- Customer Relationship Management,
- Human Resource Management,
- Conometrics,
- Social Impact of IT,
- Public Policy and Processes.

The institute has conducted several sponsored research programmes funded by agencies such as DIT, DST, MHRD etc. Its strong focus on research has had to numerous publications during its short period of existence. Its faculty has contributed to over 300 publications in International Journals and Research Conferences.

<b>IITM QUICK Facts</b>	
Publications by faculty in last five years in Refereed Journals/ Conferences/Workshops (as per SCOPUS indexed database)	300+
Ongoing Research Projects from external funding agencies	16
Ongoing Research Projects under Faculty Initiation Grants	06
Ph. D.s Awarded till date	29
Books Published by the Institute Faculty	16
AICTE/MHRD Staff Development Programmes conducted in last 3 years	10
Workshop/Seminar/Conferences conducted in last 3 years	48
Number of Entrepreneurs Developed	22

#### 4.4 Incubation and Innovation

Creating entrepreneurs thriving on innovation and creativity has been the forte of the institute. Right from its inception, the institute has been promoting entrepreneurial spirit of the students and has been nurturing young talent through E-cell and Innovation and Incubation Centre, incubating new enterprises. The institute has a collaboration with Centre for Innovation, Incubation and Entrepreneurship (CIIE) at IIM Ahmdabad. The institute takes pride in developing 22 entrepreneurs till date. In a very short time span since its existence, the Institute has witnessed over many ventures by its students. CEON Solutions, BCube IT Services, ADAVANTAL Technologies, Redonic Care are to name a few such vibrant units. The faculty and students are encouraged to set up new enterprises.

#### 4.5 Enabling Ecosystem

The institute provides an enabling ecosystem for research. This includes well stocked library, state-of-the-laboratories and good computational facilities. The students are encouraged to present papers at national and international conferences/workshops. In last 2 years more than 80 students were funded for such participation. Besides academics, a lively culture of peer-to-peer knowledge sharing, collaborative personality development and skill enhancement ensures a multi-dimensional development of the students as a part of the ecosystem. The following is an indicative list of recent Laurels earned by the institute.

- "National B-School Award of Star News" for B-School with Industry related curriculum in IT.
- "B-School Leadership Award", by DNA and Star of the industry group.
- "Devang Mehta Award" for Curriculum with IT inputs.
- "Award for Excellence in e-governance", Initiative by Madhya Pradesh Government.

#### 4.6 Linkages with Industry & Government

The institute has developed strong linkages for collaboration with the Industry. There is an IBM Centre of Excellence in Software. A start-up ADVANTAL has established strong linkage with the institute. In order to enhance employability, institute has also developed strong ties with CISCO for various professional programmes in networking. The institute has developed strong bond with the Madhya Pradesh government for training various e-governance and IT related programmes for employees.

#### 5. Transfer of Technology know-how and Outreach

Educational institutions are open systems. Thus, institute's technological know-how and managerial wisdom has meaning only when it addresses human and societal problems. The mandate of any academic institution should be the development and skill up-gradation of all the stakeholders by imparting needed knowledge.

Therefore, one of the mandates of ABV-IIITM Gwalior is to create technological and managerial solutions to solve social and economic problems at the grass root level. In particular the institute endeavors to:

- Understand the challenges faced by the populace at large.
- Understand the prevalent governance system (involving citizens, non governmental entities, business and government) and developing ways to make it more effective.
- Gear institute's research and development activities to meet these challenges.
- Develop low cost technology enabled managerial solutions which are modular in nature and have ability to interoperate with broader solutions developed at state/national level.

A number of initiatives are taken by the institute wherein technology transfer is affected.

For example, a software package, named, "File Tracking System" has been developed and sold to various clients. Such initiatives have also resulted in winning the Award for Excellence in e-Governance Initiatives by Government of Madhya Pradesh.

### **5.1 Outreach activity**

As a part of developing faculty, institute has conducted several staff development programmes under the aegis of AICTE/MHRD. Several Management Development Programmes (MDPs) are also conducted for industry executives. The institute has also conducted impact assessment studies to assess the impact of government initiatives in e-governance. A recent assessment of Janmitra scheme of Gwalior district has earned appreciation by local government. The institute has also taken initiative in starting a community radio.

### **6. Social Impact**

As one of the premier IT institutes, ABV-IITM produces a large number of human resource which in turn serve the nation. An alumnus of ABV-IITM is not a human resource for Gwalior or Madhya Pradesh, s/he earned the ability to create and sustain national and international impact. Our alumni are in top leadership roles in corporations (such as TCS, Wipro, Yahoo etc.), educational institutions, (Such as IITs, IIMs), research labs (such as DRDO, NTRO etc.), NGOs, governmental agencies, and as entrepreneurial heads of their own companies. Through community radio, the institute plans to fulfil its social commitment of education to the community. Health Automation and Management Services (HAMS), a portal for providing online medical services to rural/urban areas was in the top 3 finalists for NASSCOM Social Innovation Honors (NSIH) for year 2011.

#### **6.1 Finishing School for Unemployed**

Apart from curriculum, that ABV-IITM is committed to the society through its social obligations. The institute is always eager to take

community led initiatives, extension and outreach programme. One of our flagship programmes is training for professionals. Training for Professionals as a novel concept initiated by the institute based on the idea of Finishing School in association with Department of Information Technology, Government of India is dedicated to guiding the professionals all round the country for excellence in Technology and Management and, to bridge the gap between their education at the undergraduate level and the requirement of Information Technology Enabled Services.

So far, six batches of students have been trained with more than 300 unemployed graduates taking advantage of this programme. The programme started as a response to the NASSCOMs survey that revealed less than 25% of the total professionals in IT are employable. The program is a special initiative of the Institute to strengthen the quality of IT education and to enhance interface with the industry, for those sections of the society who otherwise do not have the access to state-of-the-art facilities and good learning environment. The programme aims to create quality manpower by imparting high quality professional training in the three domains namely technology, management and soft skills for personality development. Active involvement from IIT-Roorkee and IIT-Kanpur and companies like TCS, Infosys, Wipro, SUN Micro Pro, NIIT and Seed Infotech have led to the creation of good content for the program. Trainees are especially encouraged by the hands on training on programming and languages. The training has been made possible by state-of-the-art infrastructure consisting of fully furnished labs, classrooms, hostels, and library, each of which has been especially designed as per training requirements.

#### **6.2 Training Programme for Act NREGA**

In line with the mission of the institute of providing e-governance solutions, the institute has conducted training programme for National Rural Employment Guarantee Act (NREGA)

workers of MP for enhancing their IT skills. This is a first-of-its kind programme wherein large number of employees at the grass root level are being trained.

### 6.3 Environmental Consciousness

ABV-IIITM is committed for a sustainable society for future generation. It promotes environmental awareness in both formal and informal ways. In formal mode, the institute has designed courses like environmental ecology, ecosystem and sustainable development for all the students. In informal mode, students are sensitized towards the present environmental problem by study tours and other participatory activities regarding water conservation, recycle, nature conservation and tree plantation. Students of the institute are encouraged to undertake environmental projects like waste management, environmental hazards of computer and mobile phones, water conservation, tiger reserve etc. as a part of course curriculum.

The institute is first of its kind to initiate a butterfly conservatory on the campus. Butterfly is an indication of environmental health of the campus. With this view and to sensitize student community, a butterfly conservatory was launched on 11 April 2010 on the campus with active support from MP Biodiversity Board and Department of Horticulture, NDMC, new Delhi. The institute has also produced a documentary

called 'Disha' to showcase the biodiversity of the campus.

### 7. Quality Initiatives

1. Documentation and ISO 9001: 2008: The institute has taken several initiatives to promote the message of quality. It is the first in the IIIT series with ISO9001: 2008 certificate. The processes are documented.
2. Feedback Mechanisms: Attempts are being made to take feedback from various customers as shown in Table 2 with the focus on continuous improvement.
3. Suggestion Scheme: The institute has "Suggestion Scheme" wherein any one can give suggestions for improvement. These suggestions are evaluated and if found viable, implemented.
4. Quality Circle: The institute has also evolved various quality circles. The institute has also hosted Quality Circle Convention at city level involving various schools and nearby industries.
5. Training programmes: Institute conducts several training programs for its employees. There is a regular series of such programmes to sensitize employees on time management, stress management, work flow, documentation etc.

Sr. No.	Customer	Feedback on
1	Potential candidate for M. Tech/MBA/ Phd admissions	the selection process, its transparency, infrastructure etc.
2	Students	teacher about teaching-learning Process
3	Trainees	the design, and delivery of the training modules
4	Potential Employers	the quality of students, infrastructure and curriculum
5	Participants of MDPs	the quality of programme, delivery and quality of faculty

Table 2: Feed back mechanism

## 8. Some Connects

Today's universities cannot stay isolated. They impact and get impacted by surrounding environment, ecosystem and society. The institute being in IT and Management has developed strong connections with the surrounding ecosystem. This can be enumerated as connect with:

- a. growing knowledge economy: ABV-IIITM is a deemed university. The institute has acted as a nursery for grooming talent for the knowledge economy. This talent is reflected in terms of a strong alumni base of over 1100 trained manpower spread across various IT and IT enabled services.
- b. the spirit of Entrepreneurship: The institute has also acted as a spring board for entrepreneurs. It has produced entrepreneurs in IT and IT enabled services. The institute is also incubating business ideas which may later become business itself. There is strong foundation laid at the institute to promote the spirit of entrepreneurship through e-cell and *innovation and incubation centre*.
- c. industry: The institute has developed strong liaisons with industry not only local (such as JK Tyres, Godrej, SRF etc,) but at the national level (such as IBM, Cisco, etc.). This helps in developing a real life perspective.
- d. other institutes: The institute has evolved several collaborations with other institutes such as IITs and IImS. It has also developed

research collaborations with institutes/ universities abroad.

- e. the community and society: The institute has started several initiatives to stay connected with the society. Community radio is an initiative in this direction. Conduction of several impact studies (such as assessment of Janmitra, assessment of impact of quality of service act etc.) is a pointer in this direction.

In summary, as a university, ABV-IIITM is attempting to provide an ecosystem to provide space for everyone, be it student, be it faculty or be it staff.

## 9. Summary

ABV-IIITM Gwalior is vibrant with its strong alumni base, competent faculty, good quality students and motivated staff. The institute has created a niche for itself in the cusp areas of IT and IT enabled management. The high impact research conducted by the faculty and students is reflected in terms of both quality and quantity of the papers published, number of training programmes conducted and most importantly social initiatives such as Community Radio, Butterfly conservatory, Finishing school programme. The institute has become a model wherein IT besides its various technology facets, is also perceived as an instrument for social change.



## 9.8. PERIYAR MANIAMMAI UNIVERSITY, VALLAM, TAMILNADU.

*Registrar\**

Periyar Maniammai University named after Thanthai Periyar is located in Vallam, Thanjavur, Tamilnadu. This rural campus is located at 10 km west of Thanjavur and 45 km on the east from Tiruchirapalli. Periyar Maniammai College of Technology for women was established in 1988 which was the first Women Engineering College in the whole of the world. It had been elevated to the status of Periyar Maniammai University (under section 3 of UGC ACT 1956) on 17<sup>th</sup> August 2007 for its constant and steady progress towards fulfilling the local needs and aspirations of the public. The maxim inscribed in the logo of the University is, "Think, Innovate, Transform".

Keeping in pace with the global needs and challenges, the University has been offering several new courses of relevance and contemporary significance.

The University has been receiving accolades for its academic programmes, its computing infrastructure and the beauty of the campus. The sprawling campus of 219.08 acres has a plinth area of 1,26,698 sq.ft. To assure quality in Higher Education, the University has gone through the process of Accreditation by National Assessment and Accreditation Council (NAAC). The Peer Committee has analyzed the strengths and weaknesses of the institution and assessed the University with "B" grade as per

new methodology. All eligible courses have been accredited by the NBA of AICTE. The Quality Management System was implemented successfully and got certified to ISO 9000, ISO 9001, 2000 in 2000 and ISO 9001: 2008 in 2010.

Presently the University is offering 23 courses in Science and Technology, Engineering Education, Architecture and Management studies. In addition to offering full-time and part-time undergraduate, postgraduate and research programmes leading to Bachelor's, Master's and Doctoral degrees, the University also offers part time degrees, Distance education and certificates through its Centre for On-line and Distance Education (COADE). There are 345 teaching faculty and 384 administrative staff. The total number of students is 4941 and the staff student ratio is 1:14.

The University has recently conducted the International Conference on Emerging Green Technologies 2011 from 27 July, 2011 to 30 July, 2011. The Former President of India Dr. APJ. Abdul Kalam inaugurated the conference and remarked that the University has determined to lead the nation to achieve zero carbon status by 2025 and today it deserves to be called as a Carbon Neutral University.



## 9.9. PUNJAB TECHNICAL UNIVERSITY, PUNJAB.

Dr. Rajneesh Arora \*

Punjab Technical University (PTU) was established in the year 1997 under The Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997) to provide for the establishment and incorporation of a University for the advancement of technical education and development thereof, in the State of Punjab and for matters connected therewith. In pursuance of this Act, the University started its journey with 9 engineering colleges and few management colleges affiliated to it. Since then the University has come in a long way and during this Academic Session 2011-12, the University has affiliated 94+ Engineering Colleges, 139 management and Computer Application courses, 37 institutions imparting Pharmacy education, 11 colleges imparting Hotel Management Education, 6 colleges providing Architecture Education and 21 Regional Centres for M.Tech and Ph.D. in different branches of Engineering and Management and a Regional Centre for M. Pharmacy. More than 2013 Learning Centres of PTU are providing professional education through Distance Learning all across the country and abroad.

At the time of inception of the University, the students were doing their engineering courses from the Universities of other states. PTU achieved that height & glory because of which it became successful in winning the faith of the students. At present, after 14 years of its existence, PTU is providing education to approximately Five Lakh students in the fields of Engineering, Management, Architecture and

Pharmacy. This number includes around 50 percent students from the states other than Punjab.

At present, University is working to develop National Level Technical Institutions in the state. The Chain of Punjab Institute of Technology's (PIT's) are the first example of it. University has started PIT in Mansa emerged as premier institute devoted to engineering studies in the hinterland of Malwa. PITs are the dream projects of the University and are being developed on the pattern of Indian Institute of Technology's (IITs). Institute has been envisioned to spearhead a new movement in technical education and project new ideas and innovations in science and technology, capable of bringing a perceptible change in the lives of many deprived from the benefits of science and technology.

We, at Punjab Technical University are propelled by the vision and wisdom of our leaders and are continuously striving to discharge our duties for the overall improvement of quality of education and to make sure that the courses we offer, remain relevant to our society and useful to our students in the globalized work environment.

In Last 2 years, University *has ushered in* many path breaking steps that have catapulted Punjab into an emerging hub of engineering and technical studies in the country. University converged the medical and technical strata by

signing MOU with Baba Farid University of Health Sciences, Faridkot and starting four courses on Health Management and Technology.

Pitching high with its slogan "Go Rural, Go Global", Punjab Technical University has signed bipartite agreement with IT institutions of Nepal and Bangladesh for IT and Applied Technology. Bringing global exposure to indigenous students PTU tied up Pennsylvania State University Harrisburg (USA) and signed a MoU with it to impart Industrial Training to University's B.Tech. final year students in USA. Another initiated by University to translation works under National Translation Mission and now the University is in process of developing translation softwares in cooperation with IIIT Hyderabad and Punjabi University Patiala.

Integrating the concept of entrepreneurship with education, the first incubation centre of PTU was started at Gian Jyoti Institute of Management Technology, Mohali to impart training and assistance to youth to help them start their own business ventures. PTU has taken an initiative in collaboration with CII and PHD Chamber of Commerce and Industry to arrange six month Industrial training for brilliant students of all Engineering Colleges affiliated to PTU.

For the first time in the history of State Technical Education, 5 colleges of PTU got selected for Technical Education Quality Improvement Programme (TEQIP) grant. Each selected college will receive a grant of Rs. 10 Crores for development.

Aimed at faculty development of affiliated institutions by bringing to fore advanced pedagogy, PTU organized many workshops in collaboration with National Institute of Technical Teachers' Training and Research (NITTTR), Chandigarh.

Keeping an eye on the need of proficiency in foreign languages in the era of globalization, PTU started courses in 7 foreign language courses at its Mohali campus viz. French, German, Spanish, Chinese, Korean, Japanese and Italian.

With equal stress on state language, the 9th Convocation of the University was conducted in Punjabi for the first time in the history of the University.

Other important initiatives taken by the University include emergence of Textile Research Institute at Ludhiana and Food Research Institute at Barnala. Stressing on core human values, University pushed ahead with making the subject a compulsory one in all the PTU courses in collaboration with IIT Delhi, Kanpur and IIIT Hyderabad.

With a proclaimed commitment to serve around Five Lakh students technical expertise and raising employability, University has prioritized developing strong interface with the technical and management institutions of national repute for continuous improvement in University's curriculum and pedagogy.

The vision and efforts of the team enabled the University to secure the "e-India 2010 Award" for being the best ICT enabled University of the year and The Best Open and Distance Learning Initiative of the year.

**Financial Stability:** Financially PTU has become a very strong Institution. This is evident from the fact that according to the figures of financial year 2010-11, PTU possess a Corpus fund of Rs. 600 Crores. It is worth mentioning that PTU is a self financed University.

