



*VJTI in
Post Autonomy era
(2004-09)*

PREAMBLE

*In 2004 VJTI received
autonomy.*

*Since then the institute has witnessed
several transformations. VJTI now
function with a determined
vision and mission.*

*Current presentation gives a comparative account of
those systems, improvements, approaches and
activities in diverse areas
which are adopted by the institute
over the years*

CONTENT

1. Academic Programmes
2. Examination and evaluation
3. Research
4. Networking
5. TEQIP
6. Scholarships and Awards
7. Best practices in VJTI
8. Pre-autonomy Vs. Post-autonomy
9. Future Plan

Academic Programmes

- ◆ Post graduate
 - Masters Programme
 - Doctoral programme
- ◆ Undergraduate
- ◆ Diploma

Introduction *(Academic prog.)*

- ◆ VJTI, Mumbai was under University system till 2004
- ◆ More class-room TEACHING approach
- ◆ Autonomy helped improving academic performance
- ◆ Higher emphasis on LEARNING process
- ◆ Followed recommendations of National Knowledge Commission (NKC) Report
- ◆ Adopted for VJTI curriculum
- ◆ Devised new scheme and curriculum

New Scheme and curriculum

Objectives

- ◆ Help VJTI to be at par with national level engineering institutes like IITs
- ◆ Future upgradation open for international acceptability
- ◆ More room for faculty to augment activity towards research, consultancy and related activities
- ◆ Effective utilization of infrastructures like library, e-library, learning resources, internet, intranet etc.

HIGHLIGHTS

- ◆ Credit based grading system instead of marking (*old pattern*)
- ◆ Schemes are implemented only after approvals of SENATE
- ◆ Online Students' Feedback
- ◆ Introduction of Academic Audit
- ◆ Re-examination system introduced
 - *Helps students clear the subject early instead of waiting for one full semester/year*
- ◆ Winter and summer terms introduced
 - *Academically weaker students reap benefit*
- ◆ Introduction of interdisciplinary elective courses
- ◆ Full-time Ph. D. programme started from 2006-07
- ◆ Continuous Evaluation(*term work, seminar, MST etc.*)
- ◆ Academic Diary
- ◆ Industry Interaction for half day on Wednesday
- ◆ On-line courses from IIT Mumbai

New course structure Highlights (PG)

Acad Prog. Contd...

- ◆ Laboratory papers with individual passing introduced
- ◆ Industry Interaction as part of scheme
- ◆ Communication Skills Course for all disciplines
- ◆ Term Paper for MCA

Guidance Recognition for Faculty Members

RESEARCH contd..

- P. G. teacher recognition to all teachers with P.G. qualification – 75
- Ph.D. Guide recognition for all Ph. D. faculty members - 24
- External Ph.D. Guides – All IIT faculty members, 5 other members from Nanded, ex-IIT faculty, BARC etc.

◆ Resolved in 12th Senate meeting

MoU with industries

- ◆ Industrial Projects for M. Tech. students are instituted with financial benefits to the student and institute
 - Comp. Tech. Dept. & Nevis Networks, Pune
 - Mechanical Engg. Dept. & S. B. Mech, Mumbai

Ph. D. Students Enrolled

- ◆ VJTI started its full-time Ph. D. program during 2006-07 with intake – 8
- ◆ 24 students registered for Ph. D. in 2009

Department	2009-10
Mechanical	2
Civil	2
Computer	4
Textile	1
Electrical	18
Production	5

Total : 32

Research Initiatives & Incentives

- ◆ All M. Tech. dissertations are submitted along with a soft copy of a paper for publication.
- ◆ Incentives for Research Publications in International Journal, International Conference, National Journal, National Conference

PUBLICATIONS

PUBLICATIONS	Year 2004-05	Year 2005-06	Year 2006-07	Year 2007-08	Year 2008-09
National Journal	02	03	06	05	09
National Conference Proceedings	05	09	05	09	25
International Journal	01	01	02	02	05
International Conference Proceedings	02	05	06	05	16
<i>TOTAL</i>	<i>09</i>	<i>18</i>	<i>19</i>	<i>21</i>	<i>55</i>
Books Published	01	02	04	04	Nil

Patents and Projects

- ◆ **Patents** – Applications for **TWO** US patents have been filed Dr. Wavhal. The results are awaited.
- ◆ Faculty Development Program received from AICTE – Dr. B. B. Meshram
- ◆ Second phase of BRNS project on CFD accepted – 45 lakhs – Prof. A. V. Deshpande and Prof. N. M. Singh

Inter-Disciplinary Elective Courses introduced (PG)

- ◆ Nanotechnology
- ◆ Value Engineering
- ◆ CFD

Although the courses are offered at P.G. Level, students at UG level with high CPI can opt for the courses

Elective Courses introduced (UG)

- Piping Engineering

Diploma programme

- ◆ **Oldest LICENTIATE Course in VJTI (since 1887)**
- ◆ **FOUR years prog. - modified to THREE years DIPLOMA since 2007 adopting MSBTE and AICTE norms**
 - **Saves a year in professional lives of students**
 - **At par with other institutes**
 - **Intake revision in Electronics(30),Electrical(30), Textile (40) and Technical Chemistry (20)discipline**
- ◆ **Diploma syllabus revision from 2008-2009 as per MSBTE**

Examination and evaluation

- ◆ Absolute marking since inception
- ◆ Grading system introduced after autonomy since 2004

Issues in Marking system

- ◆ Based on Absolute marks obtained by the candidate
- ◆ Accuracy of evaluator can change the future of candidate
- ◆ Is it really that candidate with 93% and 93.1% have marked difference in intelligence?
- ◆ Can one say that candidate with 60 marks is a "first" class candidate and with 59 marks is a "second" class candidate
- ◆ Absolute evaluation depends upon the syllabus, the question paper and the leniency in awarding marks, all of which may vary from one examiner to another and also one institute to another.

What experts say ...

It is desirable that the performance evaluation be grade based rather than on absolute marks. Grades allow the possibility of reflecting in them a combination of relative and absolute performance. Also, grades normalize over different instructors, toughness of the question papers, and variations in the quality of assessment within a course. They are better indicators for comparison in case comparisons need to be made for any of a variety of reasons....

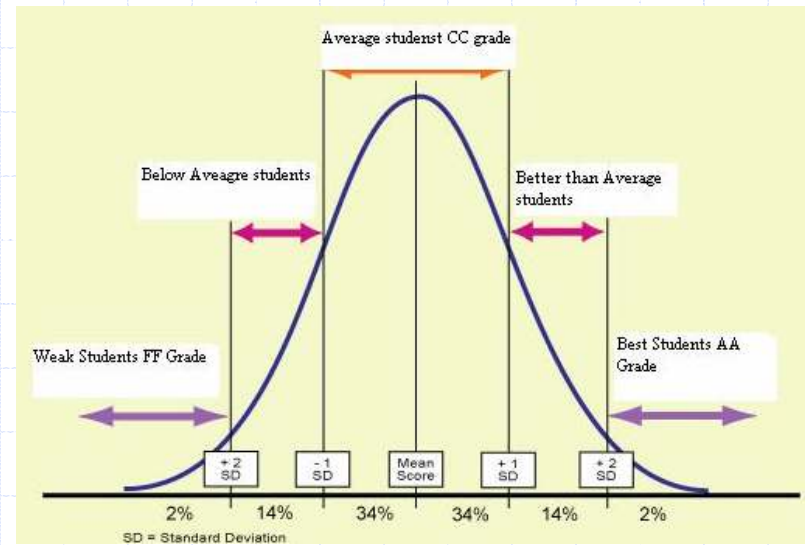
- Knowledge Commission Report

Advantages of grading system

- ◆ Removes subjectivity of subject (mathematical v/s descriptive subjects)
- ◆ Removes subjectivity of imbalances in Q paper
- ◆ Followed world over and also in India in prestigious institutes like IITs, NITs
- ◆ Works on ranges and so students falling in a specific band are all rated at same level removing the fine edge of cut-throat competition for marks

When things fit...

If the Q. paper is set properly (with proper weight ages to topics and the evaluation is also done properly, then the nature of curve expected is "Gaussian Normal distribution curve". Most of the students lie in the average range, Very few in the very high marks range and very few students in very low range.



Average (Mean): Sum all of all the marks obtained divided by the number of students

Standard deviation (SD or σ): A calculation of how far, on average, every data point is from the mean.

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

Relative grading at VJTI since 2004 - 05

◆ AA- 10	◆ CC- 6
◆ AB- 9	◆ CD- 5
◆ BB- 8	◆ DD- 4
◆ BC- 7	◆ EE- 2
	◆ FF- 0

- The grade bands are decided based on Class Average, Maximum and Minimum marks obtained
- In rare cases of skewed distribution manual intervention for grading is being followed

Performance measured by...

◆ **SPI – Semester performance index**

= Credits earned in semester/ No. of credit hours attempted

◆ **CPI – Cumulative performance index**

= Total credits earned / Total credit hours earned

◆ (Credits earned = gradepoints * credit hours, eg. Grade point = 8 and credits 8 then credit earned = 64)

◆ CPI of 6.5 and above is considered as equivalent to First Class in marking system

Process followed at VJTI

The grading obtained through software is subjected to checks and balances

- ◆ The grading software generates grades
- ◆ The faculty / instructor approves or modifies the grades if required
- ◆ The grade sheets are recalculated based on instructor's modifications
- ◆ The APEC bodies scan through the entire results to check for discrepancies
- ◆ The results are then finalized and displayed.

Research

R&D Projects

- **COMPLETED**
 - Devising & Validation of Capacitively Coupled Plasma (*BRNS Project*) (*Rs. 25 Lakhs*)
 - Devising & Validation of Inductively Coupled Plasma (*BRNS Project*) (*Rs. 25 Lakhs*)
 - Design & Fabrication of Pulse Power Modulator of 100 kV for 1 microsecond (Product Design & Fabrication for BARC) (*Rs. 25 Lakhs*)
 - DST project on Computerized Drives - (*Rs. 40 Lakhs*)
 - Computational Fluid Dynamics Laboratory (BARC Sponsored facility – PHASE – I) (*Rs. 50 Lakhs*)
- **ONGOING**
 - Computational Fluid Dynamics Laboratory (BARC Sponsored facility – PHASE – II) (*Rs. 45 Lakhs*)

Research projects *contd...*

Selected projects completed using CFD facility in PHASE - I

1. Simulation and Analysis of Fluid Flow & Heat Transfer in a Non-transferred Arc Plasma Torch
2. CFD Analysis of a Plasma Chemical Reactor
3. Simulation Study Related to Windowless ADS Target Module
4. K- ϵ and LES Model for Spallation Region of LBE ADS Target Module
5. Aerodynamic Analysis of an Aerofoil and Car Body
6. Analysis of Cooling System of Plasma Chemical Reactor for UF₆-UF₄ conversion using CFD Technique

Networking

Following MoUs have been Signed

- Delaware University USA (Centre for Energy & Environment Policy)
- IIT Bombay (For joint project guidance)
- BARC for CFD Activity
- University of Technology De Belfort (UTBM), France
- Indian Textile Accessories & Machinery Manufacturer's Association (ITAMMA), Mumbai

TEQIP

Project Allocation and Expenditure (2004-09)

Rs. millions

Sr. No.	Project Allocation Head	Total Head wise allocation
01	Civil Works	20.520
02	Equipment	116.109
03	Books & Learning Resources (LRs)	9.553
04	Training & Study Tours	12.053
05	Other heads	13.891
	<i>TOTAL</i>	<i>172.126</i>

Centers of Excellence

1. Center of Excellence in Communication
 - Spectrum Analyzer
 - Logic Analyzer
 - Network Signal Generator/Analyzer
2. Center of excellence in Mechanical Engg.
 - Rapid prototype Machine &
 - Coordinate measuring Machine

These centers expose our students to the state of art technology and support the research activities on campus. The facilities are attracting consultancy from different sectors as well.

New Laboratories Created

- Virtual Instrumentation Laboratory
- Cluster Computing Facility
- Digital Logic and Microprocessor Laboratory
- Communication Network Laboratory
- Multimedia Laboratory
- Control Dynamics Laboratory
- Cryogenics Laboratories

These new laboratories influenced teaching learning process and help the organization to reorient the courses as per the need of Industry by way of adding new electives.

Upgradation of LIBRARY facilities

- ***Modernization of Library***
 - **Slim 21 Library Management Software**
 - **Magnetic Coding for the books**
 - **Smart Library Card**
- ***e-Library Facility***
 - **INDEST Online**
 - **Springer Link with e-books**

Dedicated facility with 35 PCs on net is created for e-library

Learning Resources (LRs)

- **Distant Learning Centre of IIT Mumbai** is established and the courses online are incorporated in the curriculum.
- **Centralized Computing Facility** with 100 computers on net and different software useful across the Institute is established.
- **87 video courses from IIT Mumbai** and **57 from IIT Kharagpur** are available on intranet through streaming for student.
- ***Software procured are***
 - ***Matlab*** ***60 user***
 - ***Labview*** ***50 users***
 - ***Multisim*** ***10 user***
 - ***Qualnet*** ***01 user***
 - ***Tksolver*** ***10 user***
 - ***Catia*** ***05 user***
 - ***Hypermesh*** ***05 user***
 - ***GPS Radar*** ***02 user***

FACULTY DEVELOPMENT

- Deputation of Faculty members for **M Tech & Ph D** programmes to prestigious organizations in India & Abroad

Prof D S Wavhal	Post Doc	Texas University USA (2006-07)
Prof (Ms) Sushma Wagh	Ph D	University of Western Australia (2006-07)
Prof V M Phalle	Ph D(QIP)	IIT Roorkey (2007-10)
Prof R A Patil	Ph D (QIP)	IIT Bombay (2009-12)
Prof (Mrs) Deepa Raisinghani	Ph D	IIT Bombay (2007-10)
Prof M R Shirole	P h D (QIP)	IIT Kharagpur (2009-12)
Prof P S Choudhary	M Tech	IIT Bombay (2008-10)
Prof K K Sangle	Ph D (CTC)	IIT Bombay (2007-08)
Prof S Y Maske	Ph D (CTC)	IIT Bombay (2007-08)
Prof S A Mastud	Ph D (CTC)	IIT Bombay (2008-09)

Delegations sent abroad

- **DELEGATION – I (USA/UK)**

- **Led by Dr K G Narayankhedkar, Director VJTI, visited 11 universities. The members were**

- | | |
|-------------------|------------------------|
| • Prof Sanjay M G | Mechanical Department |
| • Prof K P Patil | Mathematics Department |
| • Dr D S Wavhal | Physics Department |
| • Dr B B Meshram | Computer Department |
| • Dr B E Narkhede | Production Engineering |

- **DELEGATION – II (Australia)**

- **Led by Dr B K Lande Dy. Director, VJTI, visited 07 universities. Other members were**

- | | |
|-----------------------|------------------------|
| • Dr. Medha Dharap | Mechanical Department |
| • Prof Shashi Agrawal | Humanities Department |
| • Dr S P Borkar | Textile Department |
| • Dr P P Bhawe | Civil Department |
| • Prof M R Nagare | Production Engineering |
| • Prof M R Shirole | Computer Department |
| • Prof P B Borole | Electrical Department |

Visits to Foreign Universities & Industries

- ◆ **Dr K G Narayankhedkar**
 - ◆ Attended International Conference on Cryogenics (17th -21st July06)
 - ◆ Paper presentation at China & Visit to Singapore (20th Aug – 9th Sept 07)

- ◆ **Prof B K Lande** Visited Southampton University UK (16TH Oct – 08th Nov 07)

- ◆ **Prof Sanjay M G**
 - ◆ Attend workshop on Air-conditioning Systems at Abu Dhabi, UAE, 25th – 29th Mar 06
 - ◆ Visit to Centre of Energy & Environment at University of Delaware, USA,17th Jun-10th Jul07

- ◆ **Dr.(Ms) Nisha Sarwade** Visited Princeton University USA (16th Nov – 14th Dec 2007)

- ◆ **Dr. (Ms) P Nambiar** Visited Virginia Tech University, USA, (21st Sept. – 15th Oct 07)

- ◆ **Dr. N M Singh** Visited Melbourne University, Australia, (27th Jul – 21st Aug 07)

- ◆ **Dr H A Mangalvedekar** Attend advance Technology workshop, Spain (26th oct – 2nd Nov 07)

- ◆ **Dr V M Topkar** Attend course on Risk Mgmt at University of Dundee & Loughborough atUK (8th Jul – 22nd Jul 07)

- ◆ **Dr P P Bhawe** Attended International Conference on Risk & Value Mgmt at University of South Africa, (20th Aug – 8th May 07)

Visits to Foreign Universities & Industries

- ◆ **Prof (Ms) A Jeyakumar** Visit University of Western Australia, Perth, 22nd Nov-7th Dec08
- ◆ **Dr. (Ms) A N Cheeran** Visit University of Western Australia, Perth, 22nd Nov-7th Dec08
- ◆ **Prof D K Shinde** Visited University of Michigan, USA (1st Nov – 27th Nov 08)
- ◆ **Prof P A Wankhede** Visited Cranefield University UK, (9th Nov – 23rd Nov 08)
- ◆ **Dr.(Ms)M A Chakraborty** Attend International Conference at Taiwan National University (18th Nov – 30th Nov 08)
- ◆ **Prof K K Sangle** Attend International Conference at Beijing, China (12th Oct – 24th Oct 08)
- ◆ **Dr A K Rakshit** Attend training at Mont Bonnet,France, Dulmen & Egelsbuch Germany (10th Nov – 30th Nov 08)
- ◆ **Prof. (Ms) S. Gangopadhyay** Attend training at ACIMIT, Italy (30th Nov -10th Dec 08)
- ◆ **Dr V D Gotmare** Attend training at College of Textile NC state University, USA (30th Nov-23rd Dec 08)
- ◆ **Dr (Ms) S S Sane** Visited University of Missouri, Cansas, USA (23rdJan-22nd Feb09)
- ◆ **Dr D N Raut** Attended training on CAD/CAM at Cranefield University UK, (18th Jan – 5th Feb 09)
- ◆ **Dr S G Bhirud** Visited Austria Microsystems, Graz, (16th – 27th Mar 09)
- ◆ **Dr R N Awale** Visited Austria Microsystems, Graz, (16th – 27th Mar 09)

Visits of Professors from universities abroad to VJTI

- **Prof. H Quack, Technical University Dresden, Germany** visited Institute on 31st Aug & 1st Sept. 2007.
 - One day Seminar on "CO₂ as a Refrigerant was organized for n/w organizations, and faculty from near by colleges (40 participants)
 - A day seminar on " Use of Hydrogen in Car Industry" in Mechanical Department
- **Prof Eric Rogers, Southampton University, UK** visited Institute on 16th Feb to 29th Feb 2008 and interact with the PG students and researcher in the field of control theory
- **Dr. R. Ragade, University of Louisville, USA** on "Computer Networking " for M. Tech students, Research scholars and faculty of Comp. Engg. Dept., on Dec 12, 2008
- **Prof. ROGER HALDENBY, Texas Tech Univ., Lubbock, USA** visited Textile Department and delivered a talk on Cotton Quality and Management –global scenario, on 21st April 2009
- **Prof. Michel Pavageau, Ecole Des Mines DE Nantes, France,** visited VJTI to discuss collaborative programmes in UG, PG, Doctoral and post-doctoral studies between the two institutions on 4th May 2009
- **Prof. Otkay Alkin, Southern Illinois University, Edwardsville, US** visited VJTI to discuss collaborative programmes in UG, PG, Doctoral and post-doctoral studies between the two institutions on 4th May 2009

CEP Courses

- ❑ CEP on, "Cryogenics Engg", by Dr K G Narayankhedkar, Director VJTI, 04 - 05 Nov 2006.
- ❑ Short Term Training Program on, "Advances in Control Theory", by Electrical Engg Dept., Oct 04 - 05, 2007
- ❑ "Cyber Security Workshop" at VJTI- Library Department, Matunga, February 28-29, 2008
- ❑ Training programme on "Inter Networking" at VJTI, Computer Engg. Department, Aug 19 - 23, 2008.
- ❑ 05 day workshop on, "Voice Culture & Speaking Skills –Train the Trainer Programme" at (Language Lab) Humanities Department, VJTI., 27 Aug 01 Oct .2008)
- ❑ Training W/s for Faculty Development "Build People to Build the Institute" at VJTI, Sept 6- Oct 18, 2008 (07 Saturdays)
- ❑ "Faculty Induction programme for fresher" at for new faculty of VJTI and n/w Institutions, Nov 27, 2008
- ❑ 05 days Training program on "Statistics and its Applications to Engineering" by Mathematics Dept., VJIT, Dec 1 - 5, 2008
- ❑ 03 days symposium on "Value Engineering for Competitiveness" by Production Engg. Dept., Dec 29 - 31, 2009

CEP Courses *contd...*

- ◆ 05 days program on "Computational Fluid Dynamics (CFD)" by Mechanical Engg Dept., Dec 29, 2008 - Jan. 02, 2009
- ◆ Workshop on "Current Trends in Information Technology" by Computer Dept., Jan.03 - 07, 2009
- ◆ Conducted a "Short term training Programme on Multimedia" by Computer Engg. Dept., Feb. 02 -07, 2009
- ◆ 03 days workshop on, "Entrepreneurs Development and Meets of successful Entrepreneurs" by VJTI Feb. 13, 20, 27, 2009
- ◆ 02 days workshop on "Electromagnetic Waves and Application" at Electrical Engg. Dept., Feb. 13 - 14, 2009
- ◆ Short Term Training Program on "Modern Trends in Machining and Materials (MTMM)", by Production Engg. Dept., Feb. 16 - 20, 2009
- ◆ Short Term Training Program on "Multimedia Systems and its Applications" Computer Engg. Dept., Feb. 21 - 26, 2009
- ◆ 03 days workshop on "High Voltage and Insulation Technology", Electrical Engineering Dept., Mar 05 - 07, 2009

RECRUITMENT OF FACULTY

- **Vacancy position in 2000** = 88 (UG+PG); 15 (Diploma) --- **TOTAL : 103**
- No recruitment till 2007 (retirement on)
- **Vacancy position in 2007** = 93 (UG+PG); 17 (Diploma) --- **TOTAL : 110**
- In 2007 recruitment process resulted in induction of 18 new faculty members
- CAS Implemented (*07 Profs, 02 AP and 01 Selection grade*)
- **Still vacancy position in 2009** = 85 (UG+PG); 23 (Diploma) --- **TOTAL : 108**
- Process of fresh recruitment is underway

INTERNAL REVENUE GENERATION (IRG)

Rs. In Lakhs

<i>Head</i>	<i>Amount for 2005-06</i>	<i>Amount for 2006-07</i>	<i>Amount for 2007-08</i>	<i>Amount for 2008-09</i>
<i>Testing</i>	34.10	34.32	47.12	40.61
<i>Projects & Consultancy</i>	16.61	33.04	25.92	36.26
<i>TOTAL</i>	<i>50.70</i>	<i>67.36</i>	<i>73.04</i>	<i>76.87</i>

TEQIP AUDIT RATING*

	1st Audit	2nd Audit	3rd Audit	4th Audit	5th Audit	6th Audit	7th Audit
Dates	14.10. 2005	08.08. 2006	14.10. 2006	04.04. 2007	10.09. 2007	03.03. 2008	16.09. 2008
Overall Scores	<i>6.0</i>	<i>6.3</i>	<i>6.7</i>	<i>7.2</i>	<i>7.2</i>	<i>7.8</i>	<i>8.0</i>

** By an independent expert appointed by National Project
Implementation Unit (NPIU), Delhi*

Students' achievements

NATIONAL/INTERNATIONAL LEVEL PARTICIPATION

Year	Department	Activity
2008-09 and 2007-08	Mechanical	Students' project short-listed among top 10 projects by DRDO on national level and received grant of Rs. 50,000/- for completion of the project
	Mechanical	Development of automobile for International contest BAHA . Project Outlay Rs. 2.00 Lakhs
	Mechanical	Formation of Society for ROBOTICS and AUTOMATION
	Electrical	1 st Prize on Project " Multilevel Car Parking " at Bharti Vidyapeeth, Navi mumbai
	Computer	IBM TGMC's The Great Minds Challenge '07 – 1 project team selected in top 20
	Computer	GOOGLE Woman in Engineering award to Vaibhavi Kamath, (March 2008)
	Computer	Microsoft student to business programming contest a software development contest – team own position in top 5 in India (March 2008)
	Computer	Mr. Anant Shekdar received cash prize of Rs. 75,000/- as EXCELLENCE award by Narottam Sekhsaria foundation
	Computer	IBM TGMC's The Great Minds Challenge '08 – 1 project team selected in top 20 at national level among over 1000 teams, 2 more teams selected in top 50.

Students' achievements

NATIONAL/INTERNATIONAL LEVEL PARTICIPATION

Year	Department	Activity
2008-09 and 2007-08	Textile	All India Young Talent Search Competition organised by SDC, UK, India Chapter – won First Prize with Cash award of Rs. 60,000/- by Jivraj Taralkar
	Textile	Prize winner in International Conference of Textiles and polymers at Indian Institute of Technology Delhi(IITD) , November 2008 by Abhijit Phadtare Final Year B. Tech (Textile)
	Textile	1st Prize winner National Conference on Technical textiles and Nanotechnology , Osmania University, Hyderabad March 2009 by Pawan Desai, Final Year B. Tech (Textile)
	Textile	1st Prize winner National Conference on Speciality Textiles material and future trends, Bapuji Institute of Textile, Davanagare. March 2009 by Saket Upadhyay, 3rd Year B. Tech (Textile)
	Textile	3 students from 2009 batch selected for MS programme in various universities of US.

Students' achievements

NATIONAL/INTERNATIONAL LEVEL PARTICIPATION

Year	Department	Activity
2006-07	Civil	Constructed world's longest Paper Bridge,3D Model of the project Interlinking of Rivers,at Technovanza in 2008
2005-06	Computer	Code-4 Bill(50) :selected for final screening among top 400 held at Bangalore
	Computer	Honorable mention in ACM International programming contest ASIA region finals
	Computer	CSI 2005 and 2006 festival-Prog.and Debugging contest - First & Second prize
	Electrical and Electronics Dept	Received First Prize at ISTE National Convention for best M.Tech.project
	Electrical and Electronics Dept	Received Special prize in project exhibition held by Indian Institute of Engineers;M.S. 2007

Students' achievements

NATIONAL/INTERNATIONAL LEVEL PARTICIPATION

Year	Department	Activity
2005-06	Mechanical	ISHARE Quiz competition – acquired First Prize out of 11 colleges
	Mechanical	Jadhavpur University Alumni association launched merit prize & Plaque to Highest marks Securing student in S.e.Mechanical class to Mr.A.P.Gore
2004-05	Computer	TCS Best Student Project Award to group of students
	Computer	Linux Challenge Scholar 2004 (One among 20 students world wide) to Mr.Shravan Singh
	Computer	A group of students selected for ACM international programming contest Asia Region final
	Electrical	Development of Ferrite Based pulse power transformer up to 20KV and Amorphous pulse power transformer up to 30KV under BRNS project

Faculty achievements

Year	Department	Activity
2008-09	Director	Dr. K. G. Narayankhedkar, Director - Chairman of NBA and member of its Sectoral Committee
	Mechanical	Dr S. S. Mantha appointed as Vice Chairman, AICTE, MHRD, Govt. of India
	Textile	Dr. A. K. Rakshit appointed as Consultant for Textile Industry segment for the Western Regional Council of Federation of Indian Chamber of Commerce and Industries (FICCI)
	Computer	Prof. (Ms) A. A. Pandit Invited to deliver lectures and to judge an Expo at University of Louisville, USA
	Textile	Dr. A. K. Rakshit appointed as Member of Research Advisory Committee for BTRA, under Ministry of Textiles, Govt. of India
2007-08	Electrical	Dr. B K Lande, Dr H M Mangalvedekar and Dr R H Daruwala appointed as Member of NBA (AICTE)
	Electrical	Dr.H.A.Mangalvedekar & Prof.H.B.Choudhari,presented paper at Beijing,China in April 2008
	Structural	Prof..K.K.,Sangle, presented paper at fifth International conference on Thin Wall Structure, Brisbane,Australia and14th World Conference on Earthquake Engineering,Beijing,China, 2008
	Structural	Prof..K.K.,Sangle, presented paper at14th World Conference on Earthquake Engineering, Beiiina. China. 2008

Faculty achievements contd...

Year	Department	Activity
2006-07	Civil	Dr.P.P.Bhave presented paper at IIFS;XIX World Congress, Durban,South Africa May 2007
		Dr.P.P.Bhave,, Partner professor on ECPSAN project for two students of MTech degree of University Basel,Switzerland
	Computer	Dr.S.S.Sane visited SPAIN in Dec.2006 for attending and presenting paper at WEAS International conference on ACS 06
	Textile	Dr V D Gotmare, elected Managing Committee member for Textile Association of India (National level body and appointed as Hon.Editor of its News Letter
2005-06	Computer	Dr..S.A. Patekar,Prof.and Head,has been selected for BEST Teacher Award by State Government of Maharashtra
	Electrical	Dr.H.A.Mangalvedekar received the first prize at the ISTE National Convention for the best M.Tech.Project guidance
	Electrical	Dr.B.K.Lande worked as principal Investigator on the Numerical Modelling and Experimental Validation of the Inductively coupled Plasma Torch funded by BRNS

Faculty achievements contd...

Year	Department	Activity
2005-06	Production	Prof.B.E.Narkhede received "Best Paper Award" for his paper published in Journal of Industrial Engg.
	Mechanical	Dr.S.S.Mantha authored a book on Business Process Re-engineering (in press)
	Mechanical	Prof..S.N.Nakhare authored a book on "Finite Element method" (in press)
	Civil	Prof.P.P.Bhave's published technical paper on "In-Vessel Composting of Household waste"; International journal of "Waste Management",UK
	Production	Prof.B.E.Narkhede received "Best Paper Award" for his paper published in Journal of Industrial Engg,
	Electrical	Dr.R.N.Awale presented paper on 'Energy and peak forecasting" at "International Conference of energy requirement and forecasting', Nepal in 2006

Internships

- ◆ Dhairya Dand – Internship at Google – May '08
- ◆ 7 students Internship at Microsoft – May 09 (Mini Nair, Ravi Mangal, Prashant Maheshwari, Rakesh Gupta, Namrata Keshwala, Nilima Patil, Shilpi Goel)
- ◆ Internship at IIT's (Amit Chavan, Tanav Bhole, Tanvi Motwani)
- ◆ Internships at various other research organisations
- ◆ Dhairya Dand – Internship at Harvard

Innovation and Creativity Cell

As a premier research educational institute having various disciplines in area of engineering and technology ,we strongly feel that this newly admitted students must be given an opportunity to percolate their innovative and creative concepts in areas of science, engineering and technology and fructify them as a long term project during their tenure in the institute.

Selected projects under Innovation and Creativity Cell

- ◆ **Effective utilization of Biogas**
- ◆ **Scientific way to predict future**
- ◆ **Novel approach of mobile charging**
- ◆ **Solution to get clean air**
- ◆ **Pollution free car**
- ◆ **Signal less traffic Junctions for Indian cities**
- ◆ **Designing cost effective and efficient training equipments for athletes**
- ◆ **Digital Signature**
- ◆ **Human power mass transfer vehicle**
- ◆ **Future in Bluetooth**

Best practices

- ◆ Faculty Diary system
- ◆ Academic audit
- ◆ Online student feedback system
- ◆ Wednesday afternoon slot introduced for institute-industry interaction
- ◆ Appreciation for research achievement on Veermata Jijabai technology Day
- ◆ Induction of Emeritus Fellow and Adjunct Professor
- ◆ Departmental Advisory Committee with participation from distinguished representatives from industry, academia and alumni

Best practices contd...

- ◆ Important days celebrated
 - *Veermata Jijabai Technology Day (12th Jan)*
 - *National Science Day (28th Feb)*
 - *Foundation Day (10th April)*
- ◆ Financial support for attending conference and presentation of research paper both in India and abroad
- ◆ Faculty share enhanced from 50% to 70% for consultancy and project activities with no upper limit and for testing services, the upper limit increased from Rs. 15000/- to of Rs. 3.00 Lakhs
- ◆ Merit prizes, scholarship and financial aid to needy students are distributed on National Science Day
- ◆ Long service (30 yrs.) recognition for employees on foundation day
- ◆ Interest free loan for staff (*Rs. 1.00 Lakh for housing*)
- ◆ Alumni activity
 - *Monthly meet on last Tuesday evening*
 - *Annual meet in December*

Pre-autonomy Vs. Post-autonomy

- ◆ Students' input quality
- ◆ Placement & package
- ◆ Result

Pre-autonomy Vs. Post-autonomy

Students' Input Quality

- ◆ Merit rank ONE (MHT-CET) admitted to VJTI for the past consecutive 3 years
- ◆ First batch admitted to F Y B Tech in 2004-05 in autonomous system
- ◆ VJTI contain highest priority by the students all over the state during the centralised admission process

MHT-CET Marks out of 200

Branches	Highest 2004-05	Highest 2008-09	Lowest 2004-05	Lowest 2008-09
Computer	145	200	113	189
Information Technology	149	194	110	181
Electronics	146	198	113	188
Mechanical	142	192	101	176
Electrical	145	185	104	162
Civil	142	197	94	157
Production	143	175	75	143
Textile	143	152	97	124

Pre-autonomy Vs. Post-autonomy

Placement & Package

- *Highest Salary for three consecutive years Rs. 9.1 Lacs (17students per year)*
- *This year's (2009) Maximum package Rs. 18 Lacs (4 students)*

Year	2004-05	2008-09
Min Salary (Lakhs)	1.2	2.0
Max Salary (Lakhs)	4.5	18
Average Salary (Lakhs)	2.0	3.5

Sample Comments of Employer:

- **Students are energetic and good theory knowledge**
- **Grasping of the student is excellent**
- **Leadership qualities are good**
- **Improvement in practical knowledge skill needed**
- **Presentation skill to be enhanced**

Pre-autonomy Vs. Post-autonomy

Result

Year	2004-05 (University)	2008-09 (Autonomous)
More than 60% (First Class)	245 (64%)	373(76%) (>6.5 CPI)
Less than 60% (Second Class)	140(36%)	120(24%) (<6.5 CPI)
TOTAL	385	493

Future plans

- ◆ Thrust on P. G. Programmes, Research, Consultancy and CEP activities
 - Dual-degree programme
 - Integrated courses viz.
 - ◆ M.Tech + Ph.D
 - ◆ Integrated B. Tech and MBA
- ◆ Increase in revenue generation from Rs. 77 Lakhs to Rs. 200 Lakhs per year (by 2011)
- ◆ Till 2007 number of Ph D qualified faculty members were only 16. This has been improved to 24 recently. Attempts are on to increase this number to at least 40 in near future, as a long term (05 years) objective, the number is expected to be at least 60 out of sanctioned strength of 174 for UG & PG
- ◆ Strengthen the Research activity by admitting Research Scholars (at least 01 Ph D student per Ph D qualified faculty member) with a long term (05 years) objective of at least 100 full time research students.

Future plans contd...

- ◆ Alumni support for various academic activities
- ◆ *MoUs with reputed foreign universities* for academic and research collaborations.
- ◆ *Increased interactions between VJTI and IIT Bombay* for Academic and Research Activities.
- ◆ To achieve *University status (Short Term Goal)*
- ◆ To achieve the status of *Digital Campus*
- ◆ To achieve the status of *World Class Research and Teaching Institute*



Thank You