

**Innovations and Best Practices**  
(a suggested format for compilation)

I. Innovations (Machines/devices/kits etc.): **Developed during TEQIP period only.**

Name of the Institution	Title of Innovation *	Uniqueness	Whether commercialized or not.	Significant Impact
<b>S.V.National Institute of technology, Surat</b>	M.Tech (Industrial Process Design) (Industrial Equipment)	Self finance and L & T sponsored (Minimum 5 students)	No	Direct recruitment of sponsored students by L & T. Hence secured job. Improved industry- institute relationship
	Technology transfer agreement	Technology transfer agreement with M/s. Altret Chemicals, Surat	Yes	Revenue generation & Improved industry –institute interaction.
	MOU with M/s. Alidhara Textiles, Surat	MOU Signed for Design validation of water jet loom machines with M/s. Alidhara Textiles, Surat	Yes	Revenue generation & Improved industry –institute interaction.
	MOU with M/s. Borsara Machine Tools, Kim	MOU signed for Gas fired texturising machine with M/s. Borsara Machine Tools, Kim	Yes	Revenue generation & Improved industry –institute interaction.
	MOU with M/s. Texfab Industries, Sachin, Surat	MOU signed for Gas fired immersion heaters & gas fired jet dyeing machine with M/s. Texfab Industries, Sachin, Surat Collaboration with M/s. Gujarat Gas Ltd., Surat	Yes	Revenue generation & Improved industry –institute interaction.
	MOU with M/s. Altair Engineering for C.O.E	MOU signed for centre of excellence for Computer Aided Engineering (C.A.E)	No	Better job opportunity student can under take live industry project. Improve industry- institute interaction.

Name of the Institution	Title of Innovation *	Uniqueness	Whether commercialized or not.	Significant Impact
<b>S.V.National Institute of technology, Surat</b>	Training programme under Services to community / Organized sector for employee of Reliance Industry.	Reliance Degree Level Training Programme in Chemical, Mechanical, Electrical and Instrumentation Engineering	Yes	Revenue Creation, Industry – Institute close- ness, Exchange of Ideas, Central facilities like computer center & Library remains open during weekends
	Training programme under Services to community / Organized sector for employee of Reliance Industry.	Second Batch of Reliance Degree Level training program for Chemical Engineering started.	Yes	Revenue Creation, Industry – Institute close- ness, Exchange of Ideas, Central facilities like computer center & Library remains open during weekends
	Training programme under Services to community / Organized sector for employee of Essar Steel Ltd.	Practical Training Programme for Diploma Engineer Trainees of Essar Steel Ltd., Hazira in the disciplines of Mech., Chem., Electrical & Electronics Engg.	Yes	Revenue Creation, Industry – Institute close ness, Exchange of Ideas, Central facilities like computer centre & Library remains open during weekends
	Panel of doctors	Panel of doctors (lady) for girls counseling.	No	----

\* Photograph may also be provided.

II. Best Practices: Implemented during TEQIP period only.

Name of the institution	Title of Best Practice	Short Description	Beneficiary* and their number	Significant Impact.
	Institute Senate	Senate has more representative of experts from Academic like IIT/NIT and Industry	Students U.G/P.G	Market driven curriculum revision
<b>S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT</b>	Curriculum Revision	Curriculum Revision is regular feature with the approval of Institute senate. Department board of under graduate study and postgraduate study can recommend the revision of curriculum/ Syllabus.	Students	Exposure of Recent Technical Trends to Students. Improvement in knowledge of Students. Market driven curriculum revision
	CGPA System fully introduced in place of mark based system	Grade pattern provides healthy competition.	Students	Better job opportunity
	Continuous Assessment	Two quiz exam and one mid term exam has created environment for continuous assessment.	Students	Examination preparation load at the end of semester has reduced. Students performance are continuously assessed.
	<b><u>New Courses started since 2004</u></b> 1) M. Tech. (CAD-CAM) 2) M. Tech. (Thermal System Design) 3) M.Tech (Communication System) 4) M.Tech (Chemical) 5) M.Tech (Computer Engg.) 6) M.Tech (Thermal Electronics) 7) M.Tech (Transportation Engg. & Planning)	} As per proposed in C.I.P  } New courses not proposed in C.I.P	Students	Institute projection at National & International level. Better job opportunity.
	M.Tech (Industrial Process Equipment Design)	Self finance and L & T sponsored (Minimum 5 students)	Students	Direct recruitment of sponsored students by L & T. Hence secured job. Improved industry-institute relation ship
	1) M.Sc (Chemistry) 2) M.Sc (Maths) 3) M.Sc (Physics)	Five years integrated course started from 2007.	Students	Institute projection at National & International level. Better job opportunity.

S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

Name of the institution	Title of Best Practice	Short Description	Beneficiary* and their number	Significant Impact.
S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT	Rules for Ph. D.	Rules are documented for more transparency for improved quality of Ph. D. work.	Students Faculty & Institute	Seriousness in efforts while pursuing Ph.D. work
	Stipend and contingency to Ph.D students	The stipend and contingency Rs. 14,000/- per month and contingency grant of Rs. 20,000/- per year to full time Ph. D. students. (F.I.R)	Students, Faculty & Institute	Attracting more students to pursue Ph. D. work and encouragement.
	Ph.D program admission	Ph.D Program admission twice in the year. Number of <b>Full Time Institute Research (FIR) Ph.D</b> has increased.	Students	Better research work culture/environment. Better institute projection at national and International level. Possible improvement in quality of work and output.
	Accreditation of B.Tech & M.Tech Programme	All eligible programs are either accredited or applied for accreditation.	Students, Faculties and Institute.	Accredited programs will bring the name and fame of the institute and will help to attract more industry for consultancy based project. Better institute projection at national and international level. Improvement in job prospect for students.
	Increase in Ph.D and M.Tech students.	Numbers of Ph.D students have increased. From 16 (2004-05) to 36 (2007-08). Numbers of M.Tech Students have increased. From 48 (2004-05) to 161(2007-08).	Students and society	More possibility of research output and better chance of research work culture plus more job opportunity
	Increase in women students for Ph.D and M.Tech programs.	Women students have increased for M.Tech. From 9 (2004-05) to 27 (2007-08). and for Ph.D. From 1 (2004-05) to 7 (2007-08).	Students and society	Bring awareness towards women involvement in higher study of engineering. More women recognition.
	M.Tech by research	M.Tech by research started with the approval of senate. Programme will provide opportunity to take up research work at parent institute where required infrastructure is already available.	Working professional and academics	More qualified engineers and product. Create awareness for higher study.

**S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT**

<b>Name of the institution</b>	<b>Title of Best Practice</b>	<b>Short Description</b>	<b>Beneficiary* and their number</b>	<b>Significant Impact.</b>
	Quality Assurance committee constituted to assess and ensure the quality of teaching based on feed back of students.	Course feed back are taken twice in the semester and possible scope of improvement in quality is done by the committee.	Students & Institute as whole	Quality of teaching has improved
	Students Feed back system fully operative	Course feed back form revised and taken twice in semester	Students and Teachers	Teaching - learning process gets improved.
	Student grievances committee	Grievances of student of any kind can be address	Student	More transparent teaching-leaving process and possible better education.
	Modern Teaching Aids.	All classrooms are equipped with modern technology aids like LCD/DLP Projectors. (Utilizing Non TEQIP fund)	Students	Better presentation for fundamental concept. Effectiveness and Quality of Teaching
	Campus wide Networking	Networking facility extended to Administrative, Academic sections and Hostel section. Library etc.	Administration Faculty Students	Improved Research focus with Techno SAVVY Administration leading to overall institute reforms.
	Career Advancement Scheme	Career Advancement Scheme (3 <sup>rd</sup> round) was held in June/July-2007.	Faculty	Faculty frushtretion level will go down. More participation in institute growth.
	Fresh faculty recruitment	Fresh recruitment completed for 2 <sup>nd</sup> round.(58 order issued and 36 have joined = 62%) . In 1 <sup>st</sup> round (54 order issued and 85% have joined)	Students and faculty	Faculty frushtretion level will go down. Workload on faculty will reduce due to induction of new faculty.
	Faculty deputing for International conference abroad.	Total 33 faculties have presented paper at international conference abroad. (Up to 31/12/2007)	Faculty and student	More participation of faculty in research and development. Interaction with experts will improve.
	Reemployment	BOG has approved to retain the services of retired senior faculty up to age 65 year.	Students	Experience of senior faculty will be utilized for the growth of the institute.
	Contingency to the faculty	Faculty is given contingency of Rs. 5000/- p.a.	Faculty	Work will not stop due to any minor financial requirement.

**S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT**

Name of the institution	Title of Best Practice	Short Description	Beneficiary* and their number	Significant Impact.
	Incentive to faculty and staff	Incentive to Selected faculties/staff (like Deans/ HOD/ Section Heads etc. for reimbursement of telephone bill of. 500/- per month.	Faculty and Staff	More participation in institutional activities.
	Facility to faculty	All faculties are given PC, Printer, UPS & Laptops. Ambiance improved. Especially all professors are given Room AC, Refrigerator to Deans. (From Non TEQIP fund)	Faculty	Better work environment and work culture. Encouragement and incentive towards academic work.
	Seed money for initiating research work.	Seed money of Rs. 50,000/-helps to the interested faculty to initiate research culture on long run, same can be converted to full fledged research project with the help of various other funding agency.	Faculty & Institute	Encouragement & motivation for the faculty members to undertake research projects
	Training to technical staff	Few technical staff were deputed for knowledge based training for proper utilization Viz. (NTTF Bangalore, CITD, Hyderabad, etc.) Few have gone to IIT, Kanpur for course on safety management. Class-IV staffs were also sent for Technical Training to improve Mindset. (Class- IV staff have availed benefit)	Technical staff, faculty and student.	Knowledge enhancement for new technology and involvement of technical staff in the mission of institute growth.
	Computer Training	In-house computer training programme organized for Class-III staff.	Class III Supporting staff	Help in achieving e-governance and computer literacy.
	English language lab	English – Language lab for TDP & others.	Tribal student/faculty and staff	Help to tribal/minority faculty/staff and student to participate in institute activities in the way of effective communication.

S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT

Name of the institution	Title of Best Practice	Short Description	Beneficiary* and their number	Significant Impact.
	Sophisticated Instrumentation centre.	Sophisticated Instrumentation Centre has been established and out reach activity of this centre in terms of testing, consultation and R & D initiated	Ph. D. & PG students and Industries	Revenue generation, High level R & D activities & Industry-institute interaction gets enhanced.
	<b>Courses/ Workshop organized:</b>  Scanning Electron Microscopy	Workshop was organized to highlight the working of SEM and their application.	45 Participants (Academicians / Industry Persons)	Exposure of Recent Technical Trends to Faculty, Students, Industry and Society.
	<b>Courses/ Workshop organized: NO: 13+</b>	<b>Area Covered:</b> Application of DSP, MAT LAB Programming, Communication System, Network Security, Open Inventor, SPSS Statistical Simulation, Power System Analysis, Encryption Tools, Rehabilitation & Retrofitting of concrete structure, Web based tools for civil engg, 3D CAD Modeling, CFD	About 450	Exposure of Recent Technical Trends to Networking partners, Faculty, Students, Industry and Society
	Entrepreneurship activity.	Entrepreneurship Development Program jointly organized with centre for Entrepreneurship Development, Govt. Gujarat undertaking	Students  About 50	Creation of Business & Job opportunities in society, as service to society and economy
	Programs under service to community. Unorganized sector.	Numbers of awareness workshop for unorganized labor like Turning, fitting, carpentry, Welding, Mobile Repairing, TV Repairing, and Meson working etc. organized. Recently Five Programs are organized like Machine shop practice, Fitting Practice, TV Repairing, and Usages of Power Tool.	Society and Community (Approx 250 + Beneficiary)	Expouser of new technology will help to get job/work possibility.

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<b>S.V.NATIONAL INSTITUTE OF TECHNOLOGY, SURAT</b>	Special counseling and coaching. Additional Book Bank facility to Tribal student.	Special counseling and coaching to weak tribal students are conducted. Additional Book bank facilities for Tribal Students. Extra Crush course / classes are conducted for weak students during end of semester as per senate resolution.	Tribal student	More encouragement and support/mutation to this community of society.
	E-Governance	E-Governance for few sections is in process	Faculty and student	Administration and record keeping will improve.
	Creation of four funds	Bank account for four funds are created at State Bank of India @ Campus with approved of BOG	Faculty	Help in sustainability of the institute growth.
	Removal and obsolescences	Unserviceable/Unrepaired equipments are written off in phase wise manner.	Students	Will help removal of old junk and create space for new equipment/machinery. This will help to utilize effectively new setup.

\* Faculty/ Staff/ Students/ Disadvantaged students (SC/ST/Women/Economically weaker students)/Academic institutions/R&D institution/ Organized industry personnel/ Unorganized or self-employed sector/ Community members/Disadvantaged groups of community (SC/ST/Women/Unemployed youth)/Others (Please specify)