INNOVATIVE PRACTICES

IN

TECHNICAL EDUCATION INSTITUTIONS

All India Council for Technical Education

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Foreword

The utility and effectiveness of Technical Education are determined by the Quality of Technical Education imparted in the Technical Institutions. AICTE has taken several Initiatives to ensure and promote Quality, such as, for example:

- A comprehensive National Initiative on Quality.

- Accreditation has been made mandatory for all Technical Institutions established before 1984-85.

- A Performance Appraisal System has been put in place to cover all those Institutions which are not yet eligible to undergo the process of Accreditation.

- We have become a Member of INQAAHE. (International Network for Quality Assurance Agencies in Higher Education).

- We are being considered for Membership in the international Washington Accord Consortium of national Accreditation Agencies.

- Quality Circles are being introduced within the Council, for its obvious benefits.

One of the well-established strategies for incorporating Quality in organizations of : industry, business and education is 'Benchmarking' and 'Sharing of Best Practices'. According to the International Clearinghouse for Benchmarking, the essence of Benchmarking is "the practice of being humble enough to admit that someone else is better at something, and being wise enough to try to learn how to match and even surpass them at it". It is "a systematic approach to business improvement where best practice is sought and implemented to improve a process beyond the benchmark performance". It focusses on how to get better internally - let us see who is best in our activity and make sure that at least we get to that level.

There are several 'Best Practices' being adopted in our Technical Institutions across the country, from which others can learn. This, then, is the purpose of compiling them for wide dissemination. It is also intended to be a recongnition to the specific Institution for conceiving and implementing 'Best Practices'. The methodology consisted of inviting descriptions of what the Technical Institutions considered to be their "Best Practices". These were analysed by an Expert Committee, which has classified them under three categories : Best Practices, Progressive Practices and Other Practices.

It is hoped that this Compilation will provide guidance and inspiration to all the Technical Institutions to pursue a journey of continuous learning and improvement of Quality.

Prof. R. Natarajan
Chairman

Preamble

The liberalization and globalization of economy have brought new opportunities and challenges in all areas of human endeavor including education. As in other sectors, educational institutions have to adopt new strategies to make the best use of the opportunities and counter the challenges.

Quality has always been a concern for individuals as well as institutions but it has acquired new significance in the recent past. Organizations treat quality as an important component of their strategy to remain competitive.

In the backdrop of these developments, AICTE has taken many initiatives to improve quality of technical education in the country. In order to sensitize organizations about quality, AICTE conducted a survey of innovative practices being used by the technical education institutions. In this regard, a questionnaire was sent to all the institutions, soliciting information on the practices. The responses were analyzed by a committee of senior academicians. The practices have been grouped in three categories viz. Best Practices, Progressive Practices and Other Practices as listed in the tables.

It is expected that other technical education institutions would interact with these institutions in order to benefit from their experience.

BEST PRACTICES

	IPrraicttices	Reporting Institutions
1.	IBenchmarkiincg cof syllabus with that of lleading naiticomal and international iinstitutions tio firndl the gaps and taking appropriate coorrective measures.	Institute of Public Enterprise, Hyderabad, Andhra Pradesh
2.	Academic Auudlit by qualified assessors tio find the areass ffor further improvements	Goa University, Taleigao Plateau, Goa
3.	Setting up Deifinite Goals in line with vision aind mission staitemients of the Institution; einsuring that thiese are understood by all sitakeholders..	Institute of Technology, Mayyil, Kerala
4.	Commitmen t to Total Quality Management ((TiQIM) and continuous improvement iin alll activities.	St. Joseph's College of Engg. & Tech., Falai, Kerala
5.	Use of Informiattiom Technology such as viideo conferemciing ffor delivering quality leictures to a large number of students.	Muthayammal College of Arts & Science, Kakkaveri,Tamil Nadu
6.	Adequate compuiting infrastructure in teirms of PCs, LAN, Ilnternet etc. for use by' faculty and sttudemts.	1. Asan Memorial College of Engineering & Tech, Chengalpattu, Tamil Nadu 2. Warangal Institute of Management, Warangal, Andhra Pradesh
7.	Compulsory Oriiemtation Program for newly recruiteid faculty members conducted by seniior faculty members and outside exipeirts.	1. Anand Engineering College, Agra, Uttar Pradesh 2. M S S College of Engg, Nagewadi, Jalna, Maharashtra
8.	Use of IT in Instiituttiomal governance, such as introductioni oif ismart cards for the students as welll as for the faculty members.	1. College of Engineering, Amravati, Maharashtra 2. Gogte Institute of Technology, Belgaum, Karnataka 3. Jaipur Engg College & Research Centre, Jaipur, Rajasthan 4. Maruthi Institute of Engineering & Tech., Tamil Nadu 5. The Rajaas Engineering College (Formerly the Indian Engineering College) Vadakkangulam, Tamil Nadu

9.	Code of conduct for students and faculty members, including professional ethics and social responsibilities.	1.	Institute of Management Studies, VBS Purvanchal University, Jaunpur, Uttar Pradesh
		2.	Nanakram Bhagwandias Science College, Hyderabad, Andhra Pradesh
		3.	P R Institute of Management, Thanjavur, Tamil Nadu
		4.	Rayalaseema Institute of Information and Management Sciences, Tirupati, Andhra Pradesh
		5.	S.D. Singodia College, Hyderabad, Andhra Pradesh
		6.	Sri Balaji College of Engineering & Technology, Jaipur, Rajasthan
		7.	Sri Belimatha Mahasamsthana Institute of Technology, Bangalore, Karnataka
10.	Involvement of students in faculty recruitment process by way of judging communication abilities of potential faculty members in a lecture delivered at the time of recruitment.		Sri Belimatha Mahasamsthana Institute of Technology, Bangalore, Karnataka
11.	Feedback on the performance of faculty members from students and senior faculty members (who attend some of the lectures as an observer).		Cummins College of Engineering for Women, Karvenagar, Pune, Maharashtra
12.	Use of water harvesting and renewable resources in order to sensitize the students about the benefits.	1.	College of Engineering, Munnar, Kerala
		2.	St. Joseph's College of Engineering, Chennai, Tamil Nadu
13.	Introduction of teacher guardian system wherein the teacher monitors the progress of the student in studies and extra curricular activities and provide necessary counseling and support.	1.	Aalim Muhammed Salegh College of Engineering, Muthapudupet, Chennai, Tamil Nadu
		2.	College of Engineering for Women, Jaipur, Rajasthan
		3.	Institute of Engineering & Technology, Lucknow, Uttar Pradesh
		4.	Jagarlamudi Kuppuswamy Choudary College, Guntur, Andhra Pradesh

	5. Kali Charan Nigam Institute of Technology, Banda, Uttar Pradesh
	6. Laxmi Devi Institute of Engineering & Technology, Alwar, Rajasthan
	7. M V J College of Engineering, Bangalore, Karnataka
	8. Nizam Institute of Engineering & Technology, Nalgonda, Andhra Pradesh
	9. Northern India Engineering College, Lucknow, Uttar Pradesh.
	10. Poornima College of Engineering, Jaipur, Rajasthan
	11. Vasavi College of Engineering, Hyderabad, Andhra Pradesh
	12. Institute of Public Enterprise, Hyderabad, Andhra Pradesh
14. Securing ISO certification for quality in the working of the Institution.	1. B M Institute of Engineering & Technology, Sonepat, Haryana
	2. Bhagwant Institute of Technology, Muzaffarnagar, Uttar Pradesh
	3. Career Institute of Technology & Management, Faridabad, Haryana
	4. Institute of Management, Aurangabad, Maharashtra
	5. Institute of Technology and Management, Gurgaon, Haryana
	6. M V J College of Engineering, Bangalore, Karnataka
	7. Madha Engineering College, Chennai, Tamil Nadu
	8. NICE Management College, Meerut, Uttar Pradesh
	9. Noorul Islam College of Engineering, Thuckalay, Tamil Nadu

	10.	RVS College of Engineering and Technology, Dindigul ,Tamil Nadu
	11.	Sree Sastha Institute of Engineering and Technology, Chennai, Tamil Nadu
	12.	St. Joseph's College of Engg. & Tech., Palai, Kerala
15. Creation of Quality Circles as part of TQM practice to improve academic standards.	1.	Maruthi Institute of Engineering & Tech., Kalivakkam, Tamil Nadu
	2.	Meenakshi Sundararajan Engineering College, Kodambakkam, Chennai, Tamil Nadu
	3.	Periyar College of Pharmaceutical Sciences for Girls, Tiruchirappalli, Tamil Nadu
	4.	Prakasam Engineering College, Kandukur, Andhra.Pradesh
	5.	Sengamala Thayaar Educational Trust, Mannargudi, Thiruvaruru, Tamil Nadu
	6.	The Standard Fireworks Rajaratham College for Women, Sivakasi,Tamil Nadu
	7.	Velammal Engineering College, Chennai, Tamil Nadu
16. Placement of students in reputed multinational companies and R&D Centres for final year industrial training.	1.	Saheed Udham Singh College of Engineering & Technology, Tangora, Punjab.
	2.	Sri Sukhmani Institute of Engineering & Technology, Dera Bassi, Punjab.

PROGRESSIVE
PRACTICES

Practices	Reporting Institutions
1. Identification of deficiencies of each student at the time of entry and providing additional input by way of extra classes and courses in soft-skill development.	Holymary Institute of Technology & Science, Hyderabad, Andhra Pradesh
2. Periodical seminars by senior faculty members and outside experts.	Dr. B C Roy Engineering College, Durgapur, West Bengal
3. Periodical updation of syllabus to take care of the new developments in the field.	Gobi Arts & Science College, Karattadipalayam, Tamil Nadu
4. Conduct of mock interviews and guidance in bio-data preparation in order to help the students in seeking employment.	Jind Institute of Engineering & Technology, Jind, Haryana
5. Use of educational aids such as LCD and overhead projector.	1. Cummins College of Engineering for Women, Karvenagar, Pune, Maharashtra 2. Warangal Institute of Management, Warangal, Andhra Pradesh 3. Zakir Husain College of Engineering & Technology, Aligarh Muslim University, Aligarh, Uttar Pradesh
6. Access to vast information available in digital library through Internet.	1. Lourdes Matha College of Science & Technology, Thiruvananthapuram , Kerala 2. SIES Graduate School of Technology, Mumbai, Maharashtra
7. Organizing self-development courses such as Reiki, Art of Living, Meditation and Yoga for students to help them in living a life full of joy.	1. All Saints P.G. College, Visakhapatnam 2. B D S Institute of Management, Meerut, Uttar Pradesh 3. Bannari Amman Institute of Technology, Sathyamangalam, Tamil Nadu 4. Institute of Management Studies, Ghaziabad, Uttar Pradesh. 5. J D C Bytco Institute of Management Studies & Research, Nashik, Maharashtra 6. RVS College of Engineering and Technology, Dindigul, Tamil Nadu

		7.	Sakthi Mariamman Engineering College, Thandalam, Chennai, Tamil Nadu
8.	Orientation program for fresh students and necessary steps to maintain discipline in the campus.		Kakatiya Institute of Technology & Science, Warangal, Andhra Pradesh
9.	Imparting free training to youths from the nearby areas for self employment.		Government Girls Polytechnic, Dehradun, Uttaranchal
10.	Extra classes for students who do not pass examination in one attempt.		National College of Engineering, Maruthakulam, Tiruneleveli

OTHER PRACTICES

| Practices	Reporting Institutions
1. Introduction of uniforms for students.	1. G.S. College of Commerce & Economics, Nagpur, Maharashtra 2. Nehru College of Engineering and Research Centre, Thrissur, Kerala. 3. Pallavan College of Engineering, Kancheepuram, Tamil Nadu. 4. Raja College of Engineering and Technology, Madurai, Tamil Nadu 5. Vignan's Institute of Information Technology, Visakhapatnam, Andhra Pradesh
2. Imparting skills in letter writing.	K L N College of Information Technology, Madurai, Tamil Nadu
3. Communication of progress of the students to their parents.	SIES Graduate School of Technology, Mumbai, Maharashtra
4. Coaching classes for GATE, GRE, TOEFL, etc.	1. BVC Engineering College, Amalapuram, Andhra Pradesh 2. Narasaraopeta Engineering College, Guntur, Andhra Pradesh 3. RVS College of Engineering and Technology, Dindigul, Tamil Nadu 4. Sreenivasa Institute of Technology and Management Studies, Chittoor, Andhra Pradesh
5. Compiling past examination questions and making them available to the students.	Sankaralingam Bhuwaneswari College of Pharmacy, Sivakasi, Tamil Nadu
6. Compiling answers to frequently asked questions in the examination.	K S Rangasamy College of Technology, Tiruchengode, Tamil Nadu
7. Providing a copy of answer books to the students who intend to apply for re-evaluation.	K S Rangasamy College of Technology, Tiruchengode, Tamil Nadu
8. Periodical visits of industrial units.	1. Maharashtra Institute of Pharmacy, Pure, Maharashtra

|		2. Sinchan College of Architecture, Pune, Maharashtra
9.	Maintaining records of every student.	Vasavi College of Engineering, Hyderabad, Andhra Pradesh
10.	Student motivation practices.	Prakasam Engineering College, Kandukur, Andhra Pradesh

EVENTS

Institute of Technology. Mayyil (Kerala)

Our Mission:
"World Class Management Education"
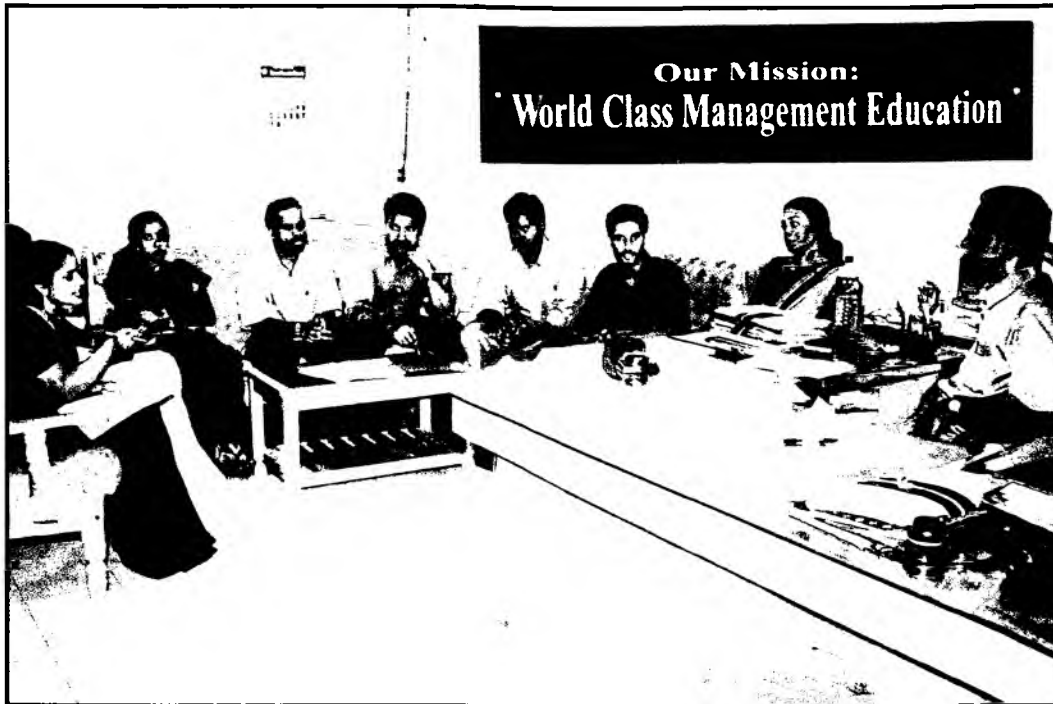
Management, Principal & Faculty members,
interacting about the achievements of vision & mission statement.

Cummins College of Engineering for Women. Karvenagar. Pune-410 052
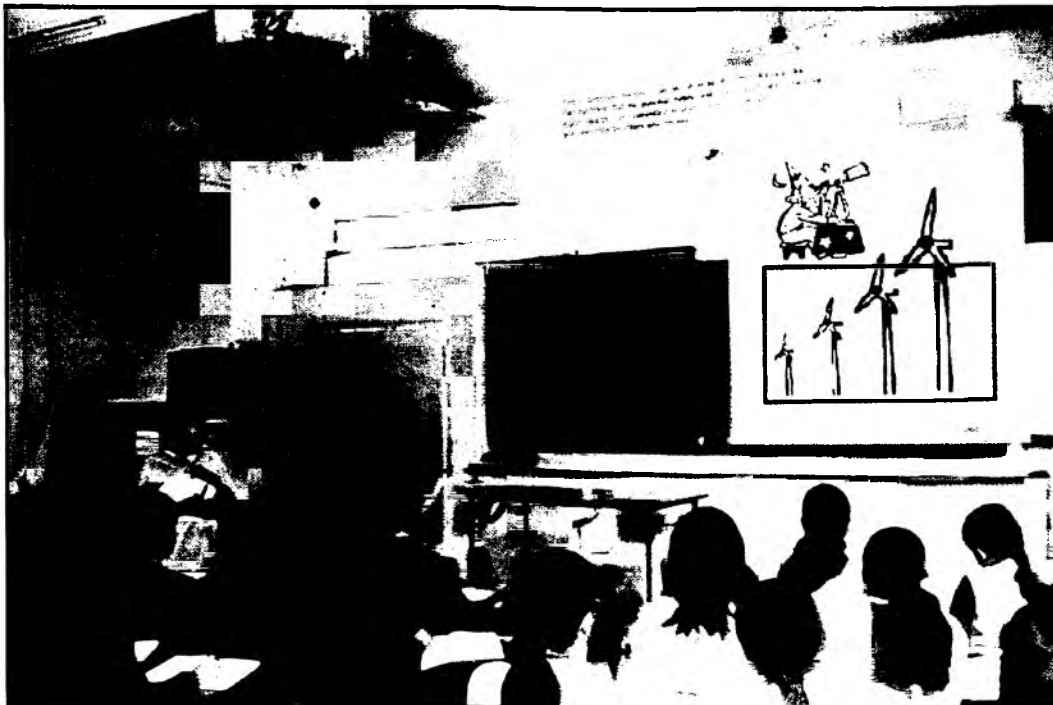
A photograph depicting feedback system on the performance of faculty members
by students & senior faculty members.

Nizam Institute of Engineering & Technology, Deshmukhi. Nalgonda Distt.. Andhra Pradesh

A view of Mentoring & Counselling by teacher
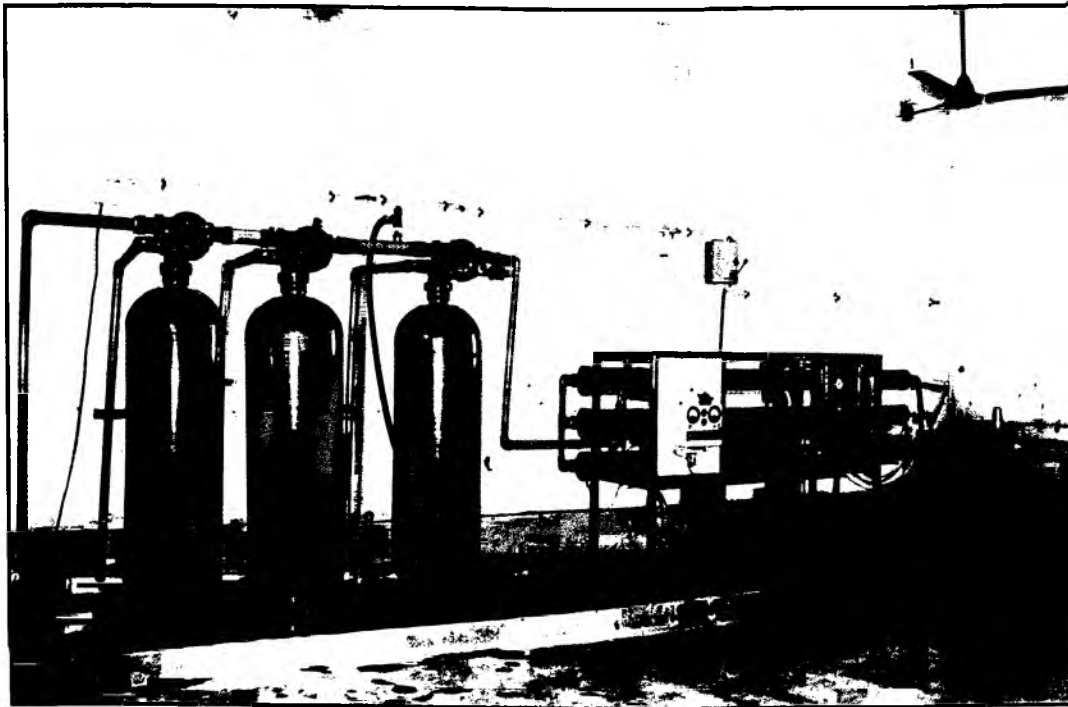(Based on the Concept of Teacher act as Guardian also)

St. Joseph's College of Engineering & Technology, Palai (Kerala)
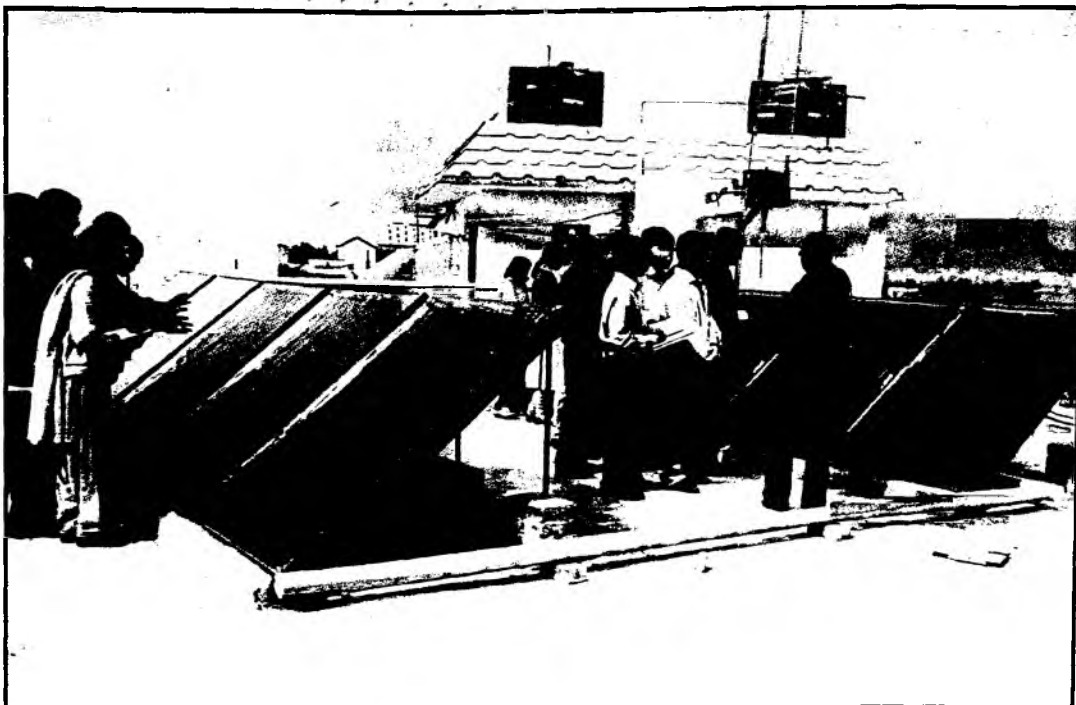

Use of Smart Card System in Library.
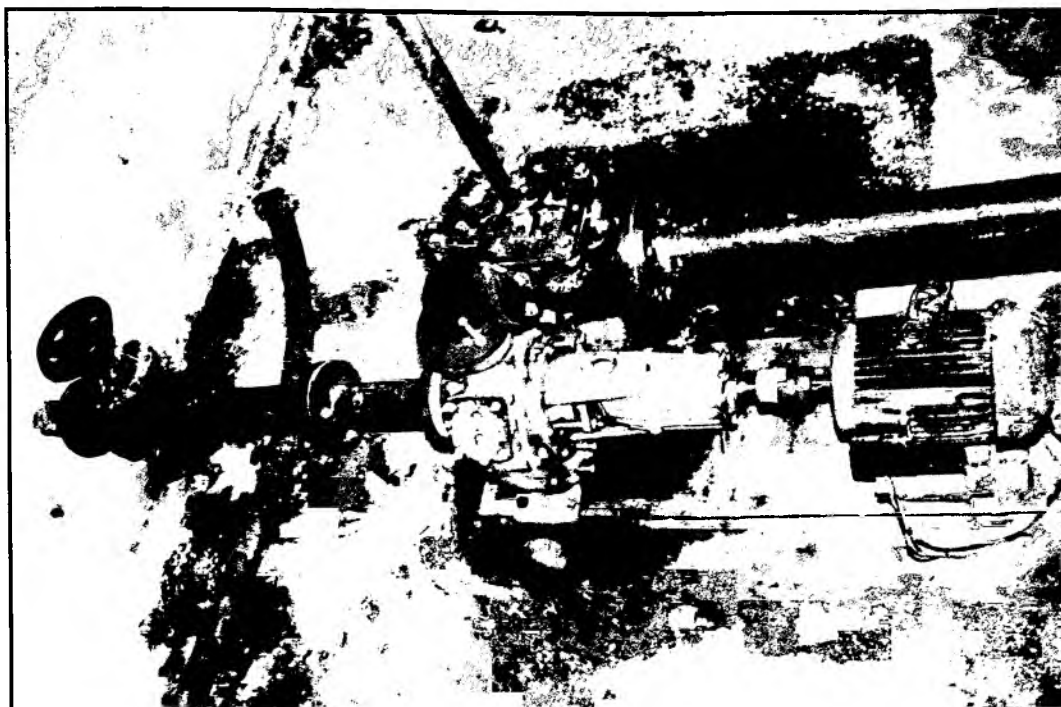
Above pictures depicts the best use of water harvesting and renewable resources in order to sensitize the students about the benefits.

Laxmi Devi Institute of Engineering & Technology, Alwar (Rajasthan)

Involvement of teachers & students in Social activities.

Solar Water Heating System (Energy Saving Unit of 1000 litre capacity) developed by Students under the regular counseling & support of faculty members.

Noorul Islam College of Engineering. Thuckalay, Distt. Kanyakumari (Tamil Nadu)

Video Conferencing with Anna University for the Inauguration of Knowledge Based Networking by
The Honbl'e President of India, Dr. A.P.J. Abdul Kalam.
(One of the land mark to secure ISO Certification)

A view of AICTE Sponsored HRD programme
(one of the landmark to secure ISO Certificate)

St. Joseph's College of Engineering & Technology, Palai (Kerala)

OUR QUALITY SYSTEM
(What we do for excellence)

- Strategic Planning Approach to development
- Top quality faculty and infra-structure
- Fully computerized on-time services
- Team work and consultation at all levels
- Total discipline, punctuality and hard work
- Most effective teaching-learning processes
- Learning skills development programmes
- Personality development programmes
- Absolutely clean and tidy campus

OUR VALUE SYSTEM
(What we believe in)

- Integrity and openness
- Respect for the individual
- Gender and social equity
- Recognition for creativity and achievement
- Total quality and market relevance
- Service to mankind
- Accountability to society
- Harmony with nature
- Abiding faith in the Almighty

Transparent Quality & Value Systems to achieve goals
as per vision & mission statement.

OUR MISSION

"To be a leading provider of technical education programmes and related services of the highest quality and standards of excellence to meet the needs of business, industry and community and thereby to contribute to India's socio-economic progress."

OUR VISION

"To develop into a world-class, pace - setting Institute of Engineering and Technology with distinct identity and character and offering a variety of educational programmes and support services that meet the goals and expectations of the people"

A clear vision & mission statement to
achieve the excellence