

# BEST PRACTICES

## IN

# AICTE APPROVED INSTITUTIONS



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION,  
NEW DELHI- 110070

# **BEST PRACTICES**

**IN**

**AICTE APPROVED INSTITUTIONS**



**ALL INDIA COUNCIL FOR TECHNICAL EDUCATION,  
NEW DELHI- 110070**

Institute Name:	ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S INSTITUTE OF INFORMATION TECHNOLOGY
Institute State:	Maharashtra
Institute Address:	Kennedy Road, Near R.T.O., Pune - 411 001, Maharashtra, India
Principal Name:	Dr. Pradeep B. Mane
Contact Number:	9420918444

## Best Practices By Institute:

### **1. Goal**

The goal of this practice is to appreciate the work done by the teaching staff, non-teaching staff and students of the institute and motivate them to excel in their areas of expertise. This practice would ensure continuous improvement in their performance as per the quality policy to achieve the Vision and Mission of the institute.

### **2. The Context**

The institute believes that a motivated workforce (Staff and Students) can be a significant factor in institute's success. When staff and students are motivated to work at higher levels of their skills and abilities, the institute as a whole runs more efficiently and is more effective at achieving its objectives and goals. For this reason, the institute has understood the power of reward systems and how they are helpful in influencing Students and Staff behavior.

Rewards are positive outcomes that are earned as a result of staff's and students' performance and achievement. These rewards are aligned with institute's objectives and goals. When any staff or student helps the institute in the achievement of one of its objectives and goals, a reward often follows.

### **3. The Practice**

The institute has constituted the following rewards for its staff and students. The mode of reward is in terms of appreciation certificates and mementos.

- I. Best Teacher
- II. Best Class
- III. Best Guardian Faculty Members (GFM)
- IV. Best Department
- V. Best HOD
- VI. 100% University Result
- VII. Best Outgoing Student
- VIII. Topper of the Class
- IX. Subject Topper
- X. Best Class III, Class IV employees

➤ **Best Teacher Award:**

Scientifically designed, faculty evaluation scheme called Performance Based Appraisal System is implemented in the institute. The PBAS consist of 1000 marks, and the teacher who scores the maximum marks is rewarded as Best Teacher of the institute.

➤ **Best Class Award:**

The institute invites applications from all the classes for the Best class award. The committee evaluates the forms submitted by each class and declares the best FE, SE, TE and BE Class whose score is maximum.

➤ **Best Guardian Faculty Members (GFM) Award:**

The teacher whose class gets the Best Class award is rewarded as Best Guardian Faculty Member (GFM).

➤ **Best Department Award:**

The institute invites applications from the all the departments for the Best Department award. The committee evaluates the forms submitted by each department and declares the department having maximum score as the Best Department Award.

➤ **Best Head of Department Award:**

The Head of Department whose department gets the Best Department Award is rewarded as Best Head of Department.

➤ **100% University Result Award:**

The staff, whose university result for the subject taught by him/her is 100%, is rewarded as 100% University Result Award.

➤ **Best Outgoing Student:**

The institute invites applications from the students who wish to apply for the Best Outgoing Student award. Each department based on the application selects one student from their department as Best Outgoing Student of the department. At the institute level all the best outgoing students selected by the department are interviewed by a committee.

➤ **Topper of the Class**

The student who ranks first in the class in the University examinations is declared as Topper of the Class.

➤ **Subject Topper**

The Student who scores maximum marks in subject is declared as Subject Topper.

➤ **Best class III, Class IV employees**

The employee who scores maximum marks based on the above criteria is rewarded as Best class III, Class IV employee.

Institute Name:	<b>BALLARI INSTITUTE OF TECHNOLOGY &amp; MANAGEMENT</b>	
Institute State:	Karnataka	
Institute Address:	"JNANA GANGOTRI" CAMPUS, #873/2, Ballari-Hosapete Road, Near Allipur, Ballari - 583 104	
Principal Name:	Dr. Yashvanth Bhupal	
Contact Number:	9900559311	Email: <a href="mailto:bitmbly@gmail.com">bitmbly@gmail.com</a>

### Best Practices By Institute:

- College has setup an Industry Advisory Board with an objective to establish strong industry connects, conduct workshops; such as MDP, FDPs with collaboration with industry and provide suggestions for process improvement as well as curriculum improvement. BITM Industry Institute Relations and Entrepreneurship Development Cell (BIRED) is established with an office in Bengaluru with an objective to build strong brand presence among the industry by constantly interfacing and interacting with the stakeholders. The cell is involved in grooming the entrepreneurship cell in the near future.
- The college follows an outcome base education by developing course plans with objectives and outcomes. The learning styles of the students are evaluated through learning style test. Though the college is affiliated VTU, Belagavi curriculum gaps are plugged through design based experiments, additional labs other than the curriculum and evaluated systematically through different assessment tools.
- The college has launched Alumni Portal to connect with the alumni and utilize their services, like Guest Lectures, Internship opportunities, placements, etc.,
- Regular training & placement is imparted in the area of communication skill and aptitude to the students to make them employable.
- The college has encouraged students to pursue internships during the vacations and acquire necessary problem solving skills.
- The college regularly encourages the students to compete in external competitions (tech fests, paper presentations and idea and innovation contests) for which students projects are certified by companies such as, KPIT, Texas Instruments, etc.
- Companies specific incubation labs have been setup such as, Mission 10X Technology Learning Center by Wipro with an objective to develop students ability with innovative products in a cost effective manner.
- Flexible Manufacturing lab of Mechanical Department is setup at a cost of Rs.1.00 Crore in collaboration with DIC, to give an exposure to the students in the upcoming manufacturing processes, catering to the local industry.
- Advanced VLSI and Embedded system lab is setup in collaboration with National Instruments and Texas Instrument to execute latest projects and enable students to experience the latest software and equipment.
- Parents meet are conducted to take the regular feedback about the progress of their ward and overall development of the college.
- A unique counseling process is followed wherein each faculty is allocated 20 students as a Proctor with an objective to constantly follow student progress and accordingly suggest changes in case of any deviation.

<b>Institute Name:</b>	<b>TECNIA INSTITUTE OF ADVANCED STUDIES</b>		
<b>Institute State :</b>	<b>Delhi</b>		
<b>Institute Address:</b>	<b>3 PSP Institutional Area Madhuban Chowk, Rohini, Delhi</b>		
<b>Principal Name:</b>	<b>Dr. Ajay Kumar</b>	<b>Contact Number:</b>	<b>9811229001</b>

### Best Practices By Institute:

The institute fosters to pursue international Quality standards of excellence in Academics, Research and Consultancy, Administration, Extension Services. The salient Best practices pursued by the institute are as follows

#### ➤ **Cross Functional Learning**

In learning process, every student is put through a judicious blend of concepts and practices associated with high tech infrastructure facilities in a dynamic environment. The students are taught through a transformative development experience, intellectual growth, with a deep practical knowledge with sound judgment. The institute pursues innovative Pedagogy:- Info Talk / Induction Program / Confabulation Talk / Class Room Teaching / Extension Lecture / Guest Lecture / Assignments / presentation / GDs/

#### ➤ **Case Analysis / Applied Problems Solving**

To develop the conceptual skills, to identify & formulate and solve problems innovatively, students undertakes Case Studies and Simulation Exercises. Cases are generously used in illustrating the contextual setting and information adequacy which characterizes situations in fields of MIS, SAD, SE and developing computer application skills. Case analysis develops decision making skills under simulated conditions and highlights the fact that the real situations are more complex than what the students learn in theory class viz. Debate / Role Play / Business Games / PDPs / Aptitude & Tech. Skill Dev. / Soft Skills Development / Value Aided Courses / Concept Classes / Workshops / Industrial Talk.

#### ➤ **Tutorials**

In tutorial classes, students undertake group discussion, problems faced in lectures room, quiz, class test, work exercise, in supervision of a faculty. These measures improve the knowledge in the subject and appropriate planning of any work for achieving the objective.

#### ➤ **Student Mentoring**

The Institute offers students services like counseling placement training support, personality grooming and Plant Visit / Corporate Lectures / Summer Training / Seminar / Project Report / Continuous Evaluation/ Publication / Pre- placement Talk / For final Placement.

The institute undertakes to publish all the Research Articles presented in the conferences in the form of Book Proceeding. The institute every year conducts 01 International conference and 03 National conferences. Further, student Information Bulletin familiarizes for various activities like rules & regulations of the institute, academic calendar, alumni club, sports.

Institute is committed to students and corporate partners and use technology in education as passion. We seek challenges, and pride ourselves on seeing them through. We hold ourselves accountable to our students, corporate collaborators, Board members, Statutory bodies, Alumni and employees by honoring our commitments, providing results, and striving for the highest quality excellence.

**Institute Name: Walchand Institute of Technology, Solapur**

**Institute State: Maharashtra**

**Institute Address: Seth Walchand Hirachand Marg, Ashok Chowk, P. B. No. 634, Solapur, 413006**

**Principal Name: Dr. Shashikant A. Halkude Contact Number: 9422457776**

### Best Practices By Institute:

Faculty e-Course Book, an in-house tailor-made digital application leveraging Google Docs and Apps, to streamline the process for better governance for Outcome Based Education (OBE) and which is time saving tool for an individual faculty and for the Institute.

Faculty e--Course Book is used as tool for collecting feedback from both students and individual faculty members which serves as vital input to improve the quality of teaching-learning and continuous monitoring by authorities.

Faculty e-Course Book is made of modules relating to Outcome Based Education, Faculty Performance, Academic Schedule, Assessment Continuous Improvement, Personal details of a faculty member. These Modules let faculty to keep track of the program outcomes (PO) and course outcomes(CO) with their mappings with Programme Educational Objectives(PEO). Faculty keep their basic details and other information and Planning of Academic schedule for the semester. Records pertaining to continuous evaluation of course delivery, records of corrective measure taken to improve attainment of CO's based on student's feedback and student's performance are also maintained in Faculty e-Course Book. These records help faculty to arrive at CO attainment levels.

Every semester Head of Department initiates and creates individual copy of Faculty e-Course Book for every faculty of the respective department. Head assigns 'right to view' to Principal of the institute, this facilitates Principal to monitor the activities in various departments and also lets him review the information provided and filled by faculty from time to time. Head of department has the write and read permission & the write permission lets him suggest corrective measures for specific task or activity being performed by the faculty under his/her department.

The Faculty e-Course Book is visible to only concerned faculty member, Head of Department and the Principal. A peer to peer access is restricted.

Faculty e-Course Book efficiently serves the objective of marinating the various records digitally by faculty members, which enables compiling the information digitally and archival of the same in future for calculating the various matrices by institution and for submitting the information to various authorities as and when required digitally, leading to green engineering and paperless model

<b>Institute Name:</b>	<b>INSTITUTE OF ENGINEERING AND TECHNOLOGY BHADDAL TECHNICAL CAMPUS</b>
<b>Institute State:</b>	<b>Punjab</b>
<b>Institute Address:</b>	<b>VILLAGE BHADDAL POST OFFICE MIANPUR</b>
	<b>DISTT. ROPAR 140108, PUNJAB</b>

### **Best Practices By Institute:**

- Travel grants are availed by faculty from university/UGC to attend international conferences
- Remote Center of IIT-Bombay to conduct faculty development programs and workshops for improvement in teaching-learning process.
- NSS-Unit of the Technical Campus has been very active in maintaining objective of Swachha Bhart Abhiyan. NSS volunteers actively associated in making reports on Annual Status of Education Report-2014 (ASER). They are camping in the remotest village of India.
- Use of learning recourses, multimedia and internet recourses for teaching is in place.
- Provision of project laboratories in each department to horn the practical and simulation skills.
- IoNs solution (Tata consultancy Services) adopted for institutional updation and automation.
- Students' feedback about teachers' performance and follow-on action implemented.
- Roll of Honor and Award of Er. Gurcharan Singh Trophy to the best student based on overall performances instituted
- The institution is NAAC accredited for five years and sustenance of quality in Technical Education, IQAC (Internal Quality Assurance Cell) is established.
- Provision of tuition free education to students from within distance of 10 KMs from the Institute exists.
- Financial assistance to the poor and needy students is made available.
- Earn-While-Learn scheme for deserving students implemented.
- Suggestion boxes outside the office of Director-General, Deans and Heads are placed to have continuous feedback for improvement.
- IET Bhaddal Technical campus has Memorandum of Understanding with M/s Vee Software Solutions Pvt. Ltd. for JAVA and Advanced Java and Harksh Technologies for CMS based training.
- The value education cell has been setup at IET Bhaddal with the following objectives:
  - To live fulfilling life by living in harmony with oneself, family, society and the nature



- To ensure human beings valuable participation and contribution to the national and worldwide growth
- The Cell has organized following conferences/seminars/workshops
- National Seminars on Human Value and Emerging Trends in Technical Education are regularly organized.
- Two days Awareness workshop on human value and professional ethics are frequently held.
- 8 days Teachers Orientation program on Universal Human Values and Professional Ethics are also held with financial support of PTU-Jalandhar
- National Conference on Moral and Ethical Values for professionals has been organized in recent past.
- An ambitious R&D cell exists, which promotes students and faculty to organize regularly conferences, workshops, seminars and expert talks for the benefit of all concerns. The proceedings of above activities are transferred in the form of books for ready reference of the students.
- Ragging is an undesirable social offence which is totally banned in the campus.
- Keeping in view the public notice of AICTE on curbing the menace of ragging, a centralized committees of Senior Faculty is constituted to check the ragging in the Campus
- Contacts numbers of senior faculty members are displayed in the campus, canteen, hostels and in the buses to bring the matter, if any to the notice of authorities
- Transparency ensured in evaluating students' academic performance
- Internal academic audit at campus level is introduced.
- Appraisal of teachers' performance by the students twice in an academic year
- Wi-Fi campus
- 24 hours availability of ambulances for medical care of students and faculty and staff
- Permission to participate in national and Internal conferences, seminars, workshops as per institute norms
- 24 hrs. electricity and water supply is ensured in the campus by arranging the normal supply with DG sets.

**Institute Name:** Shree Swami Atmanand Saraswati Institute of Technology  
**Institute State:** Gujarat  
**Institute Address:** Shree Swami Atmanand Saraswati Viidya Sankul, Kapodra, Varachha Road, Surat  
**Principal Name:** Prof. J G Vaghasia  
**Contact Number:** 9428060819      **Email :** ssasit@yahoo.in

## Best Practices By Institute:

Students' Grooming Program includes following three major activities.

### ➤ **College to Corporate Sessions:**

A “College to Corporate” sessions are organised for final year students to prepare them for industries and aware them from corporate culture. This includes:

- Time Management, Planning and Prioritization
- Attitude, Verbal and Nonverbal Skills
- Effective Communication Skills
- Group Discussion and Team Building Skills
- Etiquette and Interview Skills

### ➤ **English Proficiency Test:**

English is the dominant professional and business language and wide range of technological literature is available in it. So it is necessary to provide the support to the large number of engineering students who are coming with vernacular language. Every year English professions test is take for the students and detail diagnosis is prepared for improvement. Students are guided for reading, listing speaking and writing skills.

### ➤ **Aptitude test:**

On line aptitude test of final year students is conducted at starting of 7th semester. After assessment diagnosis is prepared for various sections like: logical reasoning, mathematics and linguistics. This provides the idea about how to crack the non technical test in recruitment process.

### ➤ **Group discussion tournament:**

Many skills like leadership, critical thinking, listening skills, confidence, capability to co-ordinate, Knowledge potential, Body language, presence of mind, reasoning ability etc are associated with GD. And this is the reason why GD is included in recruitment process by many companies.

A session on How to do Group discussion is organized which is followed by Group discussion tournament.

**Institute Name: Army Institute of Technology**

**Institute State: Maharashtra**

**Institute Address: Pune-Alandi Road, Dighi Hills, Pune - 411015**

**Principal Name: Dr. B. P. Patil**

**Contact Number: 9689907475**

**Email : [principal@aitpune.edu.in](mailto:principal@aitpune.edu.in)**

## **Best Practices By Institute:**

Best practices followed in AIT Green Initiative

### **Energy conservation**

- Automatic power factor controller (APFC) is installed in the power house which gives power factor of unity.
- Almost all street lights, toilets and corridors are provided with the LED fittings.
- Auto flush and auto cut off system is installed in the hostel toilets to save electricity and water.

### **Use of renewable energy**

- Interactive solar power generating system of 225 KW is provided on the roof top of the academic building. With the installation of this system 40 to 45 % of the total electricity requirement is met.

It also has additional advantages like: no escalation in power cost for 25 years, up to 20% rebate in property tax under Green Building Norms, uninterrupted energy use during day time round the year.

- Apart from this solar water heating system is provided in all boys and girls hostels for hot water requirement.

### **Water harvesting**

- Water recycling or waste water treatment plant of 200 m<sup>3</sup> or 2,00,000 liters capacity has been constructed. The principle of the treatment is based on Phytoid technology. The Phytoid Technology treatment is a subsurface flow type in which waste water is applied to cell/system filled with porous media such as crushed bricks, gravel and stones. It consists of three zones (i) Inlet zone composed of crushed bricks and different sizes of stones (ii) Treatment zone consist of same media as in inlet zone with plant species and (iii) Outlet zone. Daily 150 m<sup>3</sup> or 1,50,000 liters recycled water is available. This is being used for landscaping of the institute. Institute also proposes to further use this recycled water for flush systems. This would save 30% of fresh water.

- Rainwater harvesting is being done near Hostel Flank "H". This is being further developed in the current year.

### **Efforts for carbon neutrality**

- By conserving and reusing energy the need for excessive use of fossil fuels can greatly reduce, thus reducing carbon emissions. Installing solar panels helps in reducing carbon emissions. The installation of 225 KW solar power systems has saved the amount of carbon dioxide released into the

air. Thus the emission of carbon dioxide is well controlled with these efforts in the institute to achieve carbon neutrality.

### **Plantation**

- Every year students along with the garden staff plant trees. The saplings have been obtained from Vanrai NGO or donated by Tata Motors. Subsequent care is taken by the gardeners. Due to this program over the years the campus has become lush and green. Also, a herbal garden consisting of plants with medicinal values is cultivated in the college campus.

### **e-waste management**

- E waste generated is first reused in the campus itself. Then discarded waste is disposed off by board of officers to authorized vendors

**Institute Name:** PARUL INSTITUTE OF PHARMACY & RESEARCH

**Institute State:** Gujarat

**Institute Address:** PARUL INSTITUTE OF PHARMACY & RESEARCH,  
At & Po. Limda, Tal. Waghodia  
Vadodara – 391760, Gujarat India

**Principal Name:** Dr. Abhay Dharamsi

## Best Practices By Institute:

At our institute, both at the Post graduate level and at Ph. D level, faculty members, soon after completion of project work, insist students to publish their research work as well as their own research work in reputed scientific journals respectively. Since 2002, in account of our institute, total 56 no. of publications were reported including 37 research papers and review articles published in international journals with High Impact Factor like 'International Journal of Pharmaceutical Science and Drug Research', 'International Journal of Pharmaceutical and Innovations', 'International Journal of Phytomedicine', 'Asian Journal of Research in Chemistry', 'Current Psychopharmacology' etc. In research area of pharmaceutics discipline, the majority work was done in Formulation, Development and Evaluation of Novel Drug Delivery System with goal of bioavailability enhancement and stability achievement like Nanoparticles, Liposomes Microemulsion based Hydrogel, Thermo Reversible Mucoadhesive Gel, Orodispersible tablets, Self Micro-Emulsifying Drug Delivery Systems, Solid Dispersions, Transdermal Patch. Few publications include the research work related to taste masking of bitter and unpalatable drug for oral use and solubility enhancement by carriers like Cyclodextrine etc. As per the pharmaceutical analysis discipline concern, the majority work was done in area of Development and Validation of Analytical Method for Simultaneous Estimation of any pharmaceutical dosage form containing more than one active pharmaceutical ingredient by using 1st Order Derivative Spectroscopic Method, Q-absorption Ratio Method, Development and validation of stability-indicating RP-HPLC method for estimation of various pharmaceuticals. As per the Pharmacognosy discipline concern, the majority work was done in area of Development and Validation of HPTLC method for various medicinal plant extract like Vasicine and Piperine in Vasavaleha, Simultaneous Analysis and Quantification of Markers of Traditional formulation like Manjisthadichurna, establishing pharmacological effects of natural plant extracts like Potent antitumor activity of Rubiacordifolia, Anticonvulsant activity of leaves of Tremaorientalis. As per the Pharmaceutical Chemistry discipline concern, the majority work was done in area of conventional synthesis and microwave assisted synthesis of new chemical entities through series of steps, identification of intermediate and finished product by means of identification tools like CHN Analysis, IR, NMR, MASS Spectroscopy etc. as well as establishing their biological activity. As per the Pharmacology discipline concern, the research work done mainly related to screening of pharmacological activity of existing drugs by developing new animal models, evaluation and comparison of pharmacological activity of new drugs using existing animal model with reference standard.

Parul Institute of Pharmacy and Research places great emphasis on high-quality teaching, improving teaching quality, cultivating excellent teachers and highlighting the task of teaching and educating. To honour, award and thank teachers for their excellent teaching performance and their significant contribution to enhancing the quality of learning and teaching in the University, the University establishes the Teaching Excellence Award every year. Parul University annually awards more than one distinguished Teaching Awards in all different courses like Pharmacy, Engineering, MBA, BBA, Homeopathic, Ayurvedic, Physiotherapy, BCA, MCA, Architecture, Applied sciences etc. based on performance of each teacher during his/her academic year performance. All teacher's awards include Sports award, cultural award, best teacher award based on research papers and research grants they

have received, best teacher award based on result analysis of current year, training and placement award, entrepreneurship award and best HOD award nominated by principal.

Nominations can be made by: (a) faculties; (b) students and (c) Principal.

The nominations are reviewed by the Teaching Excellence Award Committee. Applicants whose names go forward for consideration for the award: (a) have their teaching portfolio assessed; (b) have their teaching observed; (c) have their course evaluations for the preceding two years considered by the Committee; (d) have their contribution towards other curriculum activities like cultural event, sports events.

The Teaching Excellence Awards have several purposes:

- To recognize and reward outstanding teaching;
- To recognize and reward the significant contribution made by individuals to enhancing the quality of learning and teaching in the University;
- To honour, award and convey gratitude to teachers for their excellent teaching performance;
- To promote and support the highest quality teaching and learning in the University;
- To stimulate, encourage and support new members of staff in their teaching careers.

Award winners can contribute to the development of the highest quality teaching and learning in the University, with innovatory teaching, sharing and dissemination of effective practice in promoting learning through effective teaching.

The gaining of the award is taken into consideration when staff applies for promotion in the University. Winners may participate in related teaching conferences with experience sharing, for example in the work of the University's Educational Development Centre. Best teacher award is given with minimum 5,000 Rs. each and are encouraged to participate in the University's research projects.

One candidate can be nominated from each Department/College for each category of awards and nominations from the college must be with the consent of the nominated teacher and must be made on the official nomination pro-forma.

The assessment for the Teaching Excellence Award is conducted by the Teaching Excellence Award Assessment Committee and its recommendations are made to the Senate, which has the final decision. The Teaching Excellence Award is conducted once a year. Institute

<b>Name:</b>	<b>KS R INSTITUTE FOR ENGINEERING AND TECHNOLOGY</b>
<b>Institute State:</b>	<b>Tamil Nadu</b>
<b>Institute Address:</b>	<b>KS R INSTITUTE FOR ENGINEERING AND TECHNOLOGY, KSR KALVI NAGAR, TIRUCHENGODE - 637215, NAMAKKAL.</b>

## Best Practices By Institute:

### Reformed Teaching Learning Process

In education, teachers facilitate student learning which helps students gain skills knowledge and thinking ability. Different ways to teach are often referred to as pedagogy. Teaching using pedagogy involves assessing the educational levels of the students on particular skills. Understanding the pedagogy of the students in the class room involves using differentialised instruction as well as supervision to meet the needs of all students in the classroom.

#### **(a) Student Centric Learning**

As we found a few difficulties in the traditional method of chalk and talk teaching, we have set up the classroom as student centric namely Reformed Teaching Learning (RTL) process. In this RTL method, the interaction by students has improved considerably.

#### **(b) Activity Based Learning**

As this new process is connected with activity based learning such as role play, students get more space to interact with teachers and classmates. Further, PPTs, Videos, OHPs and short seminars are being used in the RTL method that results in easy understanding of the concepts by students.

#### **(c) Project Based Learning**

The RTL method provides a detailed learning to students and also reduces them to initiate a project on the basis of what they have learnt in the classroom.

#### **(d) Technical Quiz**

To get in-depth knowledge in subjects, technical quiz is conducted in each subject which helps students to have specified learning.

#### **(e) Mentoring**

The teachers meet students periodically, collect the pros and cons of this method and counsel them to remove the difficulties in their academic performance; this method is called 'Mentoring system'; students' personal issues are also discussed and a proper guidance and support is provided to ensure the comfort of students in the campus.

The primary focus of the RTL method is to give students a wide-ranging knowledge, exceptional creativity and more comfort and to bring out their hidden potentials into the limelight.

## **Centre of Excellence**

Centre of Excellence is a function that facilitates the collection of standards and practice in an institution to develop the skills of team members and to promote the institution to the next level. It refers to a team, a shared facility or an entity that provides leadership, practices, research, support and training for a particular area. It is often associated with new software tools, technologies and people's network. It also focus on a particular area of research, such center may bring together the faculty members from different disciplines and provide share facilities.

To meet the requirements of industries, value added courses are organized for students through this forum.

As learning is the continuous process, Faculty Development Programme (FDP) is organized once in a semester to update knowledge and to promote skills of the faculty members.

Sponsored workshops / FDPs are organized with the financial support from CSIR, ISTE, DRDO, AICTE, DST etc.

Research and Development (R&D) activities are conducted in which both the students and faculty members are equipped.

Skill Development Courses are organized for the students and the faculty members of other institutions.

## **School Outreach Programmes**

It is important to know that the school Teachers should shape their students who go for higher education and should be aware of the latest trend of professional courses such as B.E., & B.Tech. Also the school students should equip their qualities in all the manner while they transform from school to college/university.

To create awareness and to bridge the gap on these aspects, we have designed a few outreach programmes for students and teachers of school.

The following are the benefits of the programmes:

- Teachers will get awareness about the latest teaching aids.
- Providing practical oriented teaching.
- Difficulties and barriers of subjects will be cleared thoroughly.
- Hands-on training to teachers by the Resource Persons from industries.
- Bringing school students to this campus and facilitating them to access the college resources.

School students come to know about the systems followed in colleges.

- Students are given valuable exposure by using the new and different resources beyond the reach of many public schools.
- Motivating them to take up engineering course.



**Institute Name:** BENGAL INSTITUTE OF TECHNOLOGY & MANAGEMENT, SANTINIKETAN  
**Institute State:** West Bengal  
**Institute Address:** BITM CAMPUS, SRINIKETAN BYPASS ROAD, DISTRICT - BIRBHUM, WEST BENGAL  
P.O.- DORANDA, PIN-731236

## Best Practices By Institute:

### **Experiential Learning and Role Reversal**

The focal objective of the institute is to transform the students into productive citizens through interactive and experiential learning process. Keeping in mind the potential impact of the future professionals on socio-economic growth through creation of employments, the institute chalked out an innovative practice to expose the students to the real environment of enterprise.

The practice has been implemented in integration with the normal class routine of the students and the major parameters are:

- Identification of students with entrepreneurial mindset through extensive class interactions, workshops and mentoring.
- Identification of students with leadership skills

### **Contextual features in designing and implementing the practice**

Bengal Institute of Technology & management, Santiniketan has a long standing history of carving a niche for itself towards organizing extra-academic activities which led its students to interact with the local communities. These interactions served as a platform of academy-community interface whereby the students supported the community with:

- a. Design and development of low cost technology namely rural-coolers, water-purifier and heating element combo, sensor induced gadgets etc.
- b. Spreading awareness about literacy, sanitation, hygiene etc.
- c. Spreading awareness about entrepreneurship and enterprise building

The institute decided to support the students by introducing them to the real life risk-takers – the entrepreneurs. The practice started in the year 2012. The class routine was prepared in such a way that it provided scope to interested students to meet an entrepreneur in every fortnight at the institute, not only at the institute but also at the premise of the entrepreneur to experience the pulse of entrepreneurial venture. The students are also induced to 'role-reversal' i.e. taking up the role of a mentor. These practices in combination have not only motivated the students who directly participated in the programme but also encouraged others to participate in the same.

### **Impact**

The persistence of the practice fetched the institute the award of 'Best institute contributing to rural development' by ASSOCHAM in the year 2014. Till date, on the basis of their performance, as many as 12 students have received institutional support to initiate their own ventures.

The impact of the practice has been obvious. It created a unique triangulation between institute, community and resources. The students are experiencing elevated skill levels in communication, presentation, collaboration and articulation. Till date 8 first generation entrepreneurs have been created since the practice is in place.

**Institute Name:** VIDYA PRATISHTHAN'S POLYTECHNIC COLLEGE

**Institute State:** Maharashtra

**Institute Address:** VIDYA PRATISHTHAN'S POLYTECHNIC COLLEGE

VIDYANAGARI, TARANGWADI, INDAPUR,

PUNE, Maharashtra, 413106

### Best Practices By Institute:

Best practices in institute:

#### **1. Training for second and third year students.**

The college conducts training programme for second and third year students every year besides college has signed MOUs with reputed industries.

#### **2. Industrial visits**

The college engages industrial visits to acquaint the students with practical and basic engineering knowledge every year.

#### **3. Blood Donation camp**

The college conducts blood donation camp to boost the social awareness and ethical duty as human being.

#### **4. Project exhibition**

The college makes exhibition of the best projects done by the third year students to motivate and enhance the cult of engineering and science to first and second year students.

#### **5. Digital India Programme**

As per the directives of Maharashtra state of technical education the college organized digital India programme and conducted quiz competition, elocution competition and arranged an expert lecture on effective use of digital technology to grow smart working culture.

#### **6. Celebration of Sadbhavna Divas**

As per the directives of AICTE, the college conducted Sadbhavna Divas gave an oath to all the staff and students of the college to follow and practice the principles secularity, equality and fraternity.

#### **7. Sports and cultural programmes:**

The college takes sports and cultural programme to provide an exposure and boost the hidden talents of the students.

#### **8. Manshaki personality development programme:**

Personality development is the need of the hour. So the college takes a programme organised by MANSHAKI, a foundation of personality development every year.

#### **9. Engineering day celebration**

The college celebrates Engineer's Day on 15th September every year and organises several academic activities such as poster presentation, paper presentation etc.

#### **10. Swacha Bharat Abhiyan**

As per the directives of hon'ble Prime Minister of India, college conducted the Abhiyan to make awareness of cleanliness among the students in family, in society and nation.

**Institute Name:** LOYOLA-ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY

**Institute State:** Tamil Nadu

**Institute Address:** LOYOLA COLLEGE CAMPUS,  
NUNGAMBAKKAM, CHENNAI, PIN-600034

### Best Practices By Institute:

#### **Mentoring**

Mentoring is done effectively assigning a mentor (facilitator) to each student. Mentoring gives opportunity to share the difficulties & problems to get professional help and guidance by building trust and confidence. Periodic reports are generated by the faculty.

#### **Summer Camp**

LICET organizes summer coaching camp for the marginalized school students. They learn basics in Engineering Drawing, Physics, Chemistry, Computer Science and Mathematics besides personality development, leadership skills, communicative English and team building. Equal importance is given to extra-curricular activities too. Experts from industries train them to meet the requirements of the industry. The morale of the students is boosted by inspirational talks.

#### **System Discovery & System Analysis**

This is a practice to kindle the curiosity of the students to learn new things. In System Discovery, a system is dismantled to learn its components & functions. This academic year, students are provided with a Laptop, Photocopier, FAX machine, CRO monitor, fan, CPU, wiper motor, Hydraulic Jack and an MCB.

In System Analysis, students analyze the construction and functioning of the system and come up with new ideas in similar lines, as a team. The II year students analyzed devices such as Starter motors, Mosquito bats, Centrifugal pumps with peripheral impeller etc. Recently, the college was provided with engines from Ford and 2 Duster cars from Renault for System Analysis.

### **INTERNATIONAL EXPOSURE**

#### **Memorandum of Understanding:**

This year LICET has signed MoU with Boston College (USA) along with the already existing MoUs with SAIPEM, SKIPPER, TVS LUCAS, Woory Automotives, UNESCO (Bangkok), NCRM(Japan), St Louis University (USA), Comillas University (Spain), Fu Jen University (Taiwan), American University for Sovereign Nations (USA) and Heilbronn University (Germany) etc. LICET also has student chapters of various professional associations and research institutes such as ASHRAE, IEEE, ISHRAE, SAE, ISTE, and CSI and has membership with Madras Chamber of Commerce, Indo-French Chamber of Commerce and IBM.

#### **Student and Faculty exchange program**

This programme aims at providing cross-cultural exposure and global perspective to the students. Last summer, 68 students went to ICAM, 6 to Spain, 1 to Germany accompanied by 5 faculty. Currently, fifteen of our students are pursuing their masters abroad. 3 Faculty members who handle classes for ICAM students at LICET visited ICAM campus to learn the ICAM way of teaching and learning. Value added Courses

. The following value added courses are conducted to have an edge in career opportunity.

- French class
- Linux Red Hat Certification Program
- Robotics
- Programming Language Training (C, C++, Data Structures)
- Communication Skills

## **Placement Training Programme**

To make the students job ready, certification programmes are organized by the departments. Students are also provided with aptitude training, Resume writing practice, mock test and mock interviews.

The final year students undergo a technical training, conducted by industry personnel. LICET promotes Corporate Citizenship and bulk recruitment also.

<b>Institute Name:</b>	<b>SSM College of Engineering</b>
<b>Institute State:</b>	<b>Jammu &amp; Kashmir</b>
<b>Institute Address:</b>	<b>Divar, Parihaspora, Pattan, Baramulla Kashmir 193121</b>
<b>Principal Name:</b>	<b>Prof. (Dr.) N.A. Shah</b>
<b>Contact Number:</b>	<b>9419000720      Email : ssmkashmir@gmail.com</b>

### Best Practices By Institute:

- In collaboration with the Indian Army the Institute conducts educational/technical tours to various places of the Country for enriching the technical knowledge, exposure, learning/ understanding the growth potential of our country.
- The Institute takes the Rural Sanitation Drive in the surrounding areas with active involvement of our students by conducting awareness campaigns etc.
- The Institute played active role in relief and rehabilitation programme during the post flood period of 2014 developing a motivational aptitude amongst the students to take part in Disaster Management activities.
- Because of adequate hi-tech facilities and highest number of computers and sound infrastructure available the Institute takes a pride of providing place/center facilitating conducting online Competitive Examinations and all Bank Examinations through TCS and FOSS Programme (MHRD) besides other companies for recruitment drive.
- With a view to promote curriculum and extra-curriculum activities the Institute has various clubs operating like FOSS Club, Robotic Club, Environment Club and Sports Club which go in a long way to boost the innovative and creative mind frame of our students.
- The Institutes take pride of being the only institute in this region having collaboration with Indian Institute of Civil Engineering. Where the candidates complete their final projects for shaping their career. 25-30 candidates are annually benefitted.
- The institute is in rapport with various agencies/business/Industrial concerns like HCL, WIPRO, Telecommunication Typhoons, TCS, Crompton & Grieves, Delhi Metro, TATA Infosys, Optrum, JP Associates, NHPC, Ircon, NITTTR, Chandigarh, Doordarshan, Prasar Bharti etc for placement, training and overall growth of the students.
- There is also co-ordination between this institute and other industries like Cheema Boiler Ltd, Swaraj Tractor Plant, Swaraj Fork Plant and Swaraj Harvesting Combine Ltd. for training & exposure of the students.
- The Institute conducts technical exhibitions/festivals for grooming the students developing adaptability for technical talent / skill etc. of innovative nature.
- Similarly the Institute conducts seminars, cultural programmes besides engaging the students in various sports activities. Moreover, the institute is very much particular for involving the students in multifarious project works.

<b>Institute Name:</b>	<b>PSG College of Technology</b>
<b>Institute State:</b>	<b>Tamil Nadu</b>
<b>Institute Address:</b>	<b>Avinashi Road, Peelamedu Coimbatore 641004</b>
<b>Principal Name:</b>	<b>Dr R Rudramoorthy</b>

### Best Practices By Institute:

To bridge the gap between industry and institution, and to introduce latest industry trends, courses with a credit of 1 have been introduced and are taught to students by experts from industry and the students are examined also. If a student completes three 1 credit courses successfully, he is exempted from studying one 3 credit elective course.

**Institute Name:** BVRIT Hyderabad College of Engineering for Women

**Institute State:** Telangana

**Institute Address:** BVRIT Hyderabad College of Engineering for Women  
Bachupally, Hyderabad - 90

**Principal Name:** Dr K V N Sunitha

**Contact Number:** 9949402211

### Best Practices By Institute:

**WISE (Woman in Software Engineering):** Where students were taught different programming languages at free of cost and making them industry ready by the time they complete their graduation and will have more placement opportunities/

**Incubation Center:** With the motive of encouraging the establishment of start-up companies in the immediate future, we train the students in various aspects to survive on their own in future.

**Assistive Technology Lab (ATL):** Encouraging the students to develop aids for visually challenged, deaf and dumb people, differently abled people, Autism students

**Engineering Clinic:** Training the students in various day to day appliances like Mobile Testing and Repair, Servicing of fan and tube light, Repair of laptop etc. where engineering concepts are involved.

<b>Institute Name:</b>	<b>Dr. B.R. Ambedkar Institute of Technology</b>
<b>Institute State:</b>	<b>Andaman and Nicobar Islands</b>
<b>Institute Address:</b>	<b>Dr. B R Ambedkar Institute of Technology Junglighat, PO Pahargaon Port Blair 744103</b>

### Best Practices By Institute:

1. e-management of the institution, 2. Environmental Initiative, 3. Maintenance and upkeep of college resources, 4. Student teacher concept, 5. e-Services, 6. Framing of Students charter

#### ➤ **e-management of the institution**

Institute with the internal resource has developed intra-portal which includes student information system to track the academic and extracurricular performance of Students apart from monitoring the teacher's performance. The application also includes bio-metric/ online leave linked with the salary, Purchase, Student grievances / feedback redressal system, Students admission and Registration System, e-Circular, Question paper Generation. The software is placed in the Institute Data centre and is accessed by Students / Staff through wired / wireless network. This practice has helped institution to reduce the unproductive work as well paper.

#### ➤ **Environmental Initiative**

The Institute has adopted following practice

- Recycling of all old papers / used papers, answer scripts to generate file folders and other utility items
- Setting up of Effluent treatment plant to generate water for Horticulture
- Using 50 % of the campus water requirement through rain water harvesting
- Windrow Compost: to convert organic waste generated in the campus to organic manure

#### ➤ **Maintenance and upkeep of college resources**

Electrical maintenance of the campus and the Vehicle maintenance is carried out with help of trainees under Skill Development Scheme, as Skill part of Skill Development Initiative

#### ➤ **Student teacher concept**

Selected Senior Students are encouraged to take 3- 4 periods of lower classes on specific topics from the curriculum to develop confidence and improving their technical knowledge, they are also paid honorarium for the above task

#### ➤ **e-Services**

The Institute has developed application for online submission of request of various certificates, such as Bonafide, TC, and Course Completion, which is delivered as per student's charter.

#### ➤ **Framing of Students charter**

The Institute has framed Students charter enlisting various services / Certificate issued by Institute along with time frame for issuance and escalation mechanism also been kept in the system to report in case the services in time in time with SMS Alert.



**Institute Name:** Chaitanya Postgraduate College (MBA) Autonomous

**Institute State:** Telangana

**Institute Address:** Chaitanya Postgraduate College (MBA) Autonomous  
5-11-43/A  
Kishanpura, Hanamkonda, Warangal (TS)

**Principal Name:** Dr. K. Veeravenkataiah

### Best Practices By Institute:

- These Institutions have been practicing certain useful work culture for the benefit of student community. Case Analysis as a unit has been introduced in every subject of MBA programme.
- Credit system is introduced.
- Wi-Fi- connected campus is a unique feature.
- Coverage of syllabus is calculated according to the stipulated time Seminars is compulsory to every student in every week in our college. Business Plan is introduced for the students of MBA programmes.
- Sectorial specializations like Tourism and Hospitality, Health Care Management are introduced. Management games are compulsory for MBA students.
- On-line examinations for MBA students are made compulsory once in a month.
- Communication skills and personality development programmes are provided by in-house trainers for five days (30 hours) for all the Degree and Postgraduate outgoing batches.2
- Upto five marks are awarded to those who put up attendance ranging from 80% to 95% and above to the students for both theory and practical examinations.
- The date for the declaration of semester end exams results is fixed. Results are declared on time. Credit system is introduced. Ours are the only colleges to introduce the credit system in Kakatiya University area.
- Towards faculty incentives the Management facilitates the faculty for the encashment of casual leaves which are not availed during that year.
- Student feedback reports are being scrutinized by Principal who assesses the Quality of teaching by the faculty on a regular basis.
- Financial assistance to the faculty to participate in seminars, workshops, conferences, etc.
- Faculty incentives for acquiring M.Phil and Ph.D degrees and also publication of research articles in national and international journals with more impact factor.
- Revision of exercises being done by the concerned teachers to facilitate the slow learners.
- If any teacher comes late by the stipulated time, for every such four times late, one CL is deducted.
- Revision of exercises being done by the concerned teachers to facilitate the slow learners.
- To ensure academic excellence of both teachers and students relevant text book, reference book, standard journals, E-journals are being procured by the Library.

<b>Institute Name:</b>	<b>Chaitanya Postgraduate College (MCA) Autonomous</b>
<b>Institute State:</b>	<b>Telangana</b>
<b>Institute Address:</b>	<b>Chaitanya Postgraduate College (MCA) Autonomous 5-11-43/B, Kishanpura, Hanamkonda, Warangal(TS)</b>
<b>Principal Name:</b>	<b>Dr. K. Veeravenkataiah</b>

### Best Practices By Institute:

- These Institutions have been practicing certain useful work culture for the benefit of student community.
- Net programming with C#, Multimedia and Application Development, Microsoft suggested subjects like Cloud Computing, Windows phone seven programming are introduced in MCA In-house Software Project Development by the students
- Sectorial specializations like Tourism and Hospitality, Health Care Management are introduced. On-line examinations for MCA students are made compulsory once in a month.
- Seminars is made compulsory for every student, which is conducted every week. Wi-Fi connected campus is a unique feature.
- Communication skills and personality development programmes are provided by in-house trainers for five days (30 hours) for all the Degree and Postgraduate outgoing batches.
- Upto five marks are awarded to those who put up attendance ranging from 80% to 95% and above to the students for both theory and practical examinations.
- The date for the declaration of semester end exams results is fixed. Results are declared on time. Credit system is introduced. Ours are the only colleges to introduce the credit system in Kakatiya University area.
- There has been increased application of ICT based teaching aids such as computers, internet, LCD projectors to ensure greater response.
- Towards faculty incentives the Management facilitates the faculty for the encashment of casual leaves which are not availed during that year.
- Student feedback reports are being scrutinized by Principal who assess the Quality of teaching by the faculty on a regular basis.
- Financial assistance to the faculty to participate in seminars, workshops, conferences, etc.
- Faculty incentives for acquiring M.Phil and Ph.D degrees and also publication of research articles in national and international journals with more impact factor.
- To ensure academic excellence of both teachers and students relevant text books, reference books, standard journals, E-Journals are being procured by the library
- Revision of exercises being done by the concerned teachers to facilitate the slow learners.

**Institute Name:** MANIPAL INSTITUTE OF TECHNOLOGY

**Institute State:** Karnataka

**Institute Address:** Director,  
Manipal Institute of Technology,  
Manipal University  
Manipal - 576104

### Best Practices By Institute:

- The last semester in UG program i.e., 8th semester is devoted to the Practice School concept, where the students take-up internship projects in companies/academic institutes of repute like IITs
- The Basic workshop for the First year students of UG program is changed to reflect the requirements of core Engineering skills in Civil, Electrical and Mechanical Engineering for all engineering students. Hence the Basic workshop has a modular structure consisting of work-bays for skill practice in Civil, Electrical and Mechanical Engineering
- Engineering Drawing (manual) is completely replaced as Computerized Engineering Graphics Lab for the First year Students of all UG Engineering programs.

<b>Institute Name:</b>	<b>R.M.K. Engineering College</b>
<b>Institute State:</b>	<b>Tamil Nadu</b>
<b>Institute Address:</b>	<b>R.S.M. Nagar Kavaraipettai 601206 Gummidipondi (Tlk) Thiruvallur (Dt.)</b>

### Best Practices By Institute:

In affiliating Colleges there are some significant gaps between the needs of the industry and the curriculum offered by the University. The gaps are mostly related to the recent development in technology and the practical implementation of these technologies.

The best way to bridge the gap is to collaborate with the industry and get them involved in the teaching-learning process. Our attempt to achieve this by setting up so called Centers of Excellence (CoE) in a few specialized areas suggested by leading industries.

The CoE has advisory Committee in which experts from concerned technology are the members. They devise a curriculum for the training the students under the CoE and review its implementation periodically. The expenses required to set up the infrastructure for the CoE will either be sponsored by the industry or met by our management.

The following CoEs are established so far in our institution:

1. CoE in Digital Enterprise
2. CoE in Product Lifecycle Management (PLM)
3. CoE in Virtual Instrumentation- Supported by National Instruments
4. CoE in Factory Automation- sponsored by Mitsubishi
5. CoE in Building Management System- supported by Johnson Controls
6. CoE in IoT –Supported by ARM Technology
7. CoE in Mixed Signal – Supported by Texas Instruments

The benefits from the CoEs are tremendous. Not only the students have specialized in particular Core technology, but they are also able to get placement exclusively for them. The students are able to develop some good software products (mobile apps) and upload them to depository such as Google Play and Apple Store. Each department will manage at least a CoE so that most of the students coming out of the institution is 'industry ready' and can be deployed directly.

<b>Institute Name:</b>	<b>Maharaja Agrasen Institute of Technology</b>	
<b>Institute State:</b>	<b>Delhi</b>	
<b>Institute Address:</b>	<b>Maharaja Agrasen Chowk, Sector-22, Rohini, Delhi-110086</b>	
<b>Principal Name:</b>	<b>Prof.(Dr.) M. L. Goyal</b>	
<b>Contact Number:</b>	<b>9810293264</b>	<b>Email : mlgoyal@gmail.com</b>

### Best Practices By Institute:

1. MAIT is a Remote Centre of IIT, Bombay and IIT, Kharagpur to conduct ISTE workshops under National Mission on Education Through ICT (MHRD).
2. MAIT encourages its students to enroll for Spoken Tutotials conducted by IIT Bombay.
3. Existence of Vivakanand Meditation Centre in the Institute campus.
4. MAIT organizes Havan Ceremony on the commencement of the new acadmic session.
5. Internet/Wi-Fi facilities available for students residing in the Hostel.
6. Language laboratory is equipped with modern IT facilities to improve soft skills of the students which are necessary for their placement.

<b>Institute Name:</b>	<b>Institute of Chemical Technology</b>
<b>Institute State:</b>	<b>Maharashtra</b>
<b>Institute Address:</b>	<b>N.M.Parekh Marg, Matunga( E)</b>
<b>Principal Name:</b>	<b>Prof.G.D.Yadav</b>
<b>Contact Number:</b>	<b>9833090510</b>

### Best Practices By Institute:

#### **BEST PRACTICE – I: E-ATTENDANCE SYSTEM DEVELOPMENT**

##### Objectives of the Practice

It has been our observation that given a choice, the students tend to stay away from the lectures because of several distractions in terms of internet surfing and mobile apps. It was necessary to bring the students back to class. Although the students were aware of the requirement of the attendance in the class, it was difficult to enforce it.

We decided to build a completely new custom made system to address the attendance of the students and to ensure delivery of the content. If the students come to class at least they know the content of the subjects. Although several courses are available for on-line learning, the element of 'Teacher' cannot be taken out of the learning process as finer points can be explained only by an expert teacher. If the teacher practices what he teaches the learnings gets multiplied by manifold.

#### **BEST PRACTICE – II: UNDERGRADUATE RESEARCH PROJECTS**

##### Objectives of the Practice

The strength of the ICT is in its culture of research and inculcating a habit of quest for excellence amongst the students. If the students get involved in research in the early stage of career, their interest in the subject also improves and so their learning capacity. The employability of the students improves along as they have an edge over other competitors in the international arena. ICT encourages the students after their first or second year examination to spend either in ICT in the laboratories of different faculty members and elsewhere in the country in prominent Government research labs

<b>Institute Name:</b>	<b>Dronacharya College of Engineering</b>
<b>Institute State:</b>	<b>Haryana</b>
<b>Institute Address:</b>	<b>Khentawas, Farukhnagar, Gurgaon Haryana-123506</b>
<b>Principal Name:</b>	<b>Prof.B.M.K.Prasad</b>
<b>Contact Number:</b>	<b>9910380104</b>

### Best Practices By Institute:

SAEINDIA is an affiliate society of SAE International registered in India as an Indian nonprofit engineering and scientific society dedicated to the advancement of mobility industry in India. Its headquarter is situated in Chennai, India. Engineering community, which includes Engineers Executives from Industry, Government Officials, Academics and Students, can join SAEINDIA as a member.

Dronacharya College of Engineering, Gurgaon has collegiate club of SAEINDIA which is actively working in northern India. SAE northern region members can be seen at: <http://saeindia.org/uploads/nis.pdf>. It presents many opportunities to students to learn more about their strengths. At collegiate club Students can learn from how other students handle certain situations and test their current knowledge. They can also find out what they're good at, whether that's multitasking, staying organized or generating ideas. This self-awareness will be beneficial in future career. It is a forum for members to informally exchange views and ideas. This is another great benefit of student's collegiate club that they get the opportunity to network. Meeting new students, making connections, and building relationships will all help down the line when they're looking for a job. Because all of them are the part of the same organization, they know the people they're meeting have at least a few of the same interests as them, so their connections will be valuable. This helps to enhance the knowledge base of members who are mobility practitioners within India.

Faculty members along with students also attend SAEINDIA's lecture meetings and exhibits. They also combine their specialized abilities to further advance the research, development, design, manufacture and utilization of vehicles which operate on land and water and in air and space. This unique benefit puts our faculty & students in touch with other professional engineers and suppliers who determine the future of the expanding mobility industry worldwide. SAEINDIA is one of the few professional engineering societies whose membership represents practically every engineering and scientific discipline.

Dronacharya College of Engineering, Gurgaon is a Nodal Center for Virtual labs of IIT Delhi. Virtual Lab is an Initiative of Ministry of Human Resource Development (MHRD) under the National Mission on Education through ICT. Virtual Lab enables the user to perform experiments remotely as an on-demand service over the web. Over 80

Virtual Labs are currently ready for use and available at one common website [www.vlab.co.in](http://www.vlab.co.in). Every Semester usage of virtual lab experiments is increasing in our college.

The objective of Virtual Labs is to provide remote-access to Labs in various disciplines of Science and Engineering. It helps students to learn basic and advanced concepts through remote experimentation. Through these labs participating students are availing the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self-evaluation.

For students practical skills have to be acquired through experience. They require the hands-on, problem-solving activities that have traditionally been the domain of laboratory courses. Labs are where students get the opportunity to engage with real lab equipment, to analyze authentic data, to experience and observations are made. In virtual labs students explore real data with simulated instruments such as the virtual microscope, with which they look at high-resolution images instead of real specimens. Virtual labs are valuable tool to impart basic scientific concepts

Virtual labs help students test themselves with self-assessment quizzes and practical assignments. The remotely triggered labs allow students to perform experiments in real-time using remotely located physical experimental set-ups, via the internet.

Virtual labs are knowledge modules that are designed to satisfy a learner's aspirations in an interactive way. Virtual labs are developed for the students using MATLAB and Simulink. Students get hands-on experience and are able to explore and experiment with their ideas without stepping into a lab. Using MathWorks tools, Topics covered include digital modulation schemes, channel description and modeling, and noise & channel perturbations. The broad Areas of Virtual Labs are: Electronics & Communications, Computer Science & Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Biotechnology and Biomedical Engineering, Civil Engineering, Physical Sciences and Chemical Sciences

Virtual lab also has software packages helpful for the students like LabVIEW, MultiSim, AutoCad and OrCad. Virtual labs also help students by allowing them to repeat their experiments as many times. It represents a paradigm shift in how students and teachers can use laboratories in their everyday learning.



<b>Institute Name:</b>	<b>Dronacharya Group of Institutions</b>
<b>Institute State:</b>	<b>Uttar Pradesh</b>
<b>Institute Address:</b>	<b>B-27, Knowledge Park-III Greater Noida Gautam Budha Nagar,Uttar Pradesh-201308</b>
<b>Principal Name:</b>	<b>Prof. S.K.Bagga</b>

## Best Practices By Institute:

Dronacharya Group of Institutions, Greater Noida has Institutional Membership of Confederation of Indian Industry (CII) since 2011. CII serves as a channel between industry and academic world that focuses on helping to increase efficiency and competitiveness.

CII membership gives our students & faculty an opportunity to be present at innumerable CII events at no cost e.g. 'Global SME Business Summit 2015', 'Smart Manufacturing Summit', 'CII Congress - Knowledge Expo', 'Global SME Business Summit-2014', lectures on 'Foreign Trade Policy: Deepening India's Presence In Global Markets' by Mr. Sanjay Budhia, Chairman, CII and many Conferences and training programs on the topics like Women Empowerment, University - Industry Congress, "Green Building Rating Systems" etc.

CII is a non-government, not-for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process. As a member of CII, our students & faculty has opportunity to access the world of prospects, from networking with the corporate majors of Indian and global industry to assisting in framing economic and industrial policies, through close linkage with the government.

E-Yantra Lab was inaugurated at Dronacharya Group of Institutions, Greater Noida under the e-Yantra Lab Setup Initiative (eLSI) in 2015. e-Yantra, an initiative by IIT Bombay is a project sponsored by MHRD through the National Mission on Education through ICT (NMEICT) that aims to create the next generation of embedded systems engineers with a practical outlook to help provide practical solutions to some of the real world problems.

E Yantra lab is designed as a scalable and sustainable approach that addresses infrastructure creation and teacher training – to create an eco-system at the colleges to impart effective engineering education. E- YANtra provides training and hands on experience for teachers through:

- A two day workshop on basic concepts of Embedded systems and Micro Controller programming
- e yantra robotics teacher competition to impart hands on training
- Expert feedback on student projects during initial years

e-Yantra Robotics Competition (eYRC-2015) is a competition that is open to students studying engineering. It is a group competition where students in a team of 4 program a given robotic platform to solve a given problem in 12 -15 weeks. The emphasis is on systematically applying one's mind to solving the problem with given resources and implementing the best solution. Several tasks are assigned to the teams during the course of the competition. This makes robotics accessible to students - registered in an Engineering College as undergraduates - across a variety of disciplines such as Computer Science, Information Technology, Electrical and Electronics, and Mechanical Engineering.

The Faculty & students are provided hands-on learning through e-yantra lab set up. The goal is to create the next generation of (Embedded systems) engineers in India with a practical outlook to take on challenging problems and provide solutions.

<b>Institute Name:</b>	<b>Globsyn Business School</b>
<b>Institute State:</b>	<b>West Bengal</b>
<b>Institute Address:</b>	<b>Globsyn Business School</b>
	<b>Globsyn Knowledge Campus</b>
	<b>Mouza Chanda, PS - Bishnupur, J.L. No. 101</b>

### Best Practices By Institute:

Students of Globsyn Business School are exposed to 'Care for Society' initiatives, under 'Kalyani - a Bikram Dasgupta Foundation' right from day one.

They form the 'Kalyani Youth Leadership Forum' (KYLF) to selflessly care for the underprivileged under three verticals - Elderly Care, Specially Abled Care and Channelising of Youth.

Driving the 'Care for Society' activities, helps them imbibe the practice of 'selfless giving' as an integral part of their lives. KYLF provides an opportunity to students to contribute towards the betterment of society as well as develop themselves as empathetic managers and humane individuals.

<b>Institute Name:</b>	<b>D.K.T.E.S Textile &amp; Engineering Institute, Ichalkaranji</b>
<b>Contact person:</b>	<b>Dr.P.V.Kadole</b> <b>e-mail: <a href="mailto:dktestextile@gmail.com">dktestextile@gmail.com</a></b> <b>Mobile : 09422045539</b>
<b>Institute State:</b>	<b>Maharashtra</b>
<b>Institute Address:</b>	<b>D.K.T.E.Society's Textile &amp; Engineering Institute</b> <b>Rajwada Ichalkaranji - 416115</b> <b>Dist: Kolhapur (M.S)</b>

There are many challenges and also opportunities for educational institutes like other sectors. DKTE's Textile & Engineering Institute, Ichalkaranji has adopted best practices to make the best use of these opportunities and counter the challenges. Best practices include innovations in Teaching-Learning process; interaction with industries and institutes. Because of the effective implementation of these best practices, the institute is able to get equipments worth Rs.22 Crores, state of the art laboratories, training and 100% placement opportunities from the industries for students and faculty members. The followings are the best practices followed in the institute:

### **1. Compulsory In-plant Training for students**

Students undergo training in various sectors of industries for two months after fourth and sixth semester. In the in plant training, students thoroughly observe the industrial practices and work under the guidance of technicians of the industries. Also, they undertake mini projects as per the needs of industries. The duly completed diary will be submitted to the institute and will be evaluated for their performance in the industries. Students are exposed to actual work culture of industries. Due to this practice;

- Institute was recognized and awarded with prestigious prize like AICTE-CII Best Industry linked Engineering institute
- Due to strong interaction with industries, industries have donated machinery worth Rs. 22crores
- Industries have established their state of the art laboratories at the institute

### **2. Industrial Tour for students**

At the end of fifth semester, students go for industrial tour for about a week. In this tour students are accompanied by their mentors. During the tour, students visit various industries situated across the country. Students are exposed to the industrial practices and interact with the persons in the industries. The experts in the industries also deliver lecture to the students. This exposure improved the learning ability of students as they can observe class room concepts practiced in the industries.

### **3. Pre-Placement Test**

In order to prepare the students for campus interview, department conducts a test at the start of final year. Questions of this test are framed based on the nature of interviews conducted by companies in the past.

### **4. Mentoring Scheme**

The Mentor Scheme is a unique opportunity for students to come in contact with an experienced professional to gain one-to-one careers advice, support and guidance into their profession. A faculty member is a mentor for a group of 15-20 students. A mentor is allotted to a group of students in the first year itself and mentor and the group move together up to the final year. This mentoring scheme is conducted in a structured way. The mentor and students meet at least one hour in every week as per the schedule in the time table.

**5. Visit of Faculty to industries**

Industries continuously adopt new technologies and practices to meet the customer requirements. Usually faculty members rely on text books and magazines to teach students. In order to acquire the knowledge of industrial practices, faculty members, in a group, visit the industries in every semester and observe the industrial practices and interact with technicians of industries. This updated knowledge of faculty member will be imparted to the students.

**6. Soft Skills Programme for Third and Final year students**

Due to the stiff competition during placement interviews, students have to perform well not only in technical interviews but also in personal interviews. Apart from technical knowledge acquired through the regular curriculum, students should also exhibit the soft skills during campus interview and also during their career. Soft skills programmes are conducted by experts for a week or more than that during first and second semester of second and third year. Students actively participate in these programmes and their soft skills are improved.

<b>Institute Name:</b>	<b>JSS SCIENCE AND TECHNOLOGY UNIVERSITY</b>
<b>Contact person:</b>	<b>Prof. K.S. Lokesh</b>
<b>Institute State:</b>	<b>Karnataka</b>
<b>Institute Address:</b>	<b>JSS TI Campus, Mysuru – 570 006</b>

JSS SCIENCE AND TECHNOLOGY UNIVERSITY was established under the Act No. 43 of 2013 during the year 2016. Since its inception, the University is adopting the following best practices to impart quality technical, engineering, science and humanities and social sciences education along with focused research.

## **1. Restructured Engineering Curriculum at JSS S&T U**

The university has taken an initiative to reduce the credits of UG programmes keeping in mind the necessity of training the future engineers with high quality skills and practical exposure. Most of the courses in the curriculum are designed to have a lab course or a course oriented towards industry. The University has conducted series of interactive sessions with the members of the faculty to evolve an acceptable restructured engineering curriculum based on the guidelines provided by AICTE's model curriculum. Accordingly, the University has developed the model curriculum with 175 credit points for UG programmes and 88 credits for Postgraduate programmes.

A provision has also been made for the students to register for a two credit online courses of their choice under MOOCS or any other recognized online web based courses. The curriculum also has made provision for two credit foreign language (offered languages, French, Germany and Japanese) and students can take anyone of these courses when it is offered. This restructured curriculum has taken into cognizance the need for laboratory exposure, hands-on experience and practical knowledge to be imparted to the students. Most of the courses have introduced this component in the syllabi to facilitate students to understand and appreciate the practical exposure and analytical skills.

Apart from this a provision has also been made in the restructured curriculum of the University to offer more number of elective courses suggested and offered by the industry for those students who are opting such courses from third semester onwards. This particular concept has attracted good quality students in all the disciplines of engineering to get the job in the industry and they will be industry ready by the time they complete their degree.

JSS Science and Technology University is one of the premier universities identified by MHRD, Govt. of India to participate in GIAN programme. From past two years, the University has conducted 34 such GIAN courses, higher number of GIAN courses in the selected engineering colleges category at National level. There is a provision of credit transfer for those students who register for GIAN programmes of two credits. If a student successfully completes two such GIAN courses, he will be allowed to get the exemption of one elective course by transferring four credits of two GIAN courses. This has become very attractive for the students particularly in circuit branches.

## **2. Encouraging girl students to opt for manufacturing industries**

This concept is a unique concept introduced by Mercedes Benz, R&D Centre, Bengaluru during the year 2017-18. The company is encouraging girl students to take up Mechanical and Industrial Production & Engineering branches and to get employed in manufacturing industries. Based on the quality education being imparted at JSS Science and Technology University under OBE, the University has been selected by Mercedes Benz for this particular programme. The company offers `1.00 lakh fellowships per annum per student continuously from second year onwards till the completion of the degree. The selection process is rigorous and the candidates will be based on written test and interview and merit. The company offers 10 fellowships per year and the students are opting for this fellowship continuously in the second year. This has made particularly the maximum number of girl students to

opt for Mechanical and Industrial Production & Engineering programmes. Ten fellowships were offered during 2017-18 while four have been offered during the academic year 2018-19.

The University also has made a provision of Industry-Institute interaction programme which has been revived to invite top brasses of industry for interactive sessions regularly with the Members of the Faculty to have an idea of types of courses and the content of the courses to be introduced in the curriculum structure. This also has facilitated the University as well as the industry to offer more internships for the selected students from second year onwards to groom them to be industry ready by the time they complete the degree. This reduces or almost prevents the efforts of the industry to train students after they are hired. This programme is also very attractive and more number of students are availing this facility as an outcome of industry-institute interaction programme.

JSS Science and Technology University is promoting the needy students financial requirements through SJCE Alumni Association called Alumni scholarship. Annually five students will be identified and given the scholarship regularly from past six years. There is a provision made for the youngsters to be motivated through a competition called Alumni Project Competition.

### **3. Smart and Eco-friendly campus**

JSS Technical Institutions' Campus on which the University is selected has been declared as eco-friendly campus by making it smoke and plastic free campus and effective solid waste management system. The University is putting its effort to make the campus smart campus by providing solar panels, solar lighting system for the entire campus including the buildings, agricultural residue management system through vermicomposting as well as a mini biogas production for small scale cooking purposes in the hostels.

The University is shortly implementing the most ultramodern modular advanced waste water treatment facility to recover the treated waste water for the use purpose. A blue print is ready to implement the rain water harvesting systems on the campus for water collection and use during summer seasons for gardening and other non-domestic purposes.

The greenery on the campus is also getting expanded covering almost 30% of the area with attractive horticultural and ornamental plants.

From the day one of its inception, JSS Science and Technology University is emphasizing on less paper or paper-less office to reduce the burden of wastage on the campus as well as in the administration.

To promote this, the University has acquired the most modern and the customized ERP solution with various modules starting from student admission, academics, evaluation, OBE compatible, HR management and Finance. Since this ERP is online and accessible to all employees as well as the students, it is more transparent, enables quick decision making and providing information to the stakeholders across the globe without any delay. Students can access very easily the necessary documents and other information along with the payment of fee online through a payment-gateway. Due to all these things, the time, the effort and the materials are completely either prevented or reduced to the maximum extent.

Due to all the above efforts, the entire campus is more greener, looks beautiful and pollution free campus providing an ideal environs for students and the employees to work with.

<b>Institute Name:</b>	<b>Walchand College of Engineering, Sangli</b>
<b>Institute State:</b>	<b>Maharashtra</b>
<b>Institute Address:</b>	<b>Walchand College of Engineering, Vishrambag, Sangli – 416 415</b>

## **Best Practices implemented to impart better and effective technical education at the college**

### **Aspect I: Enrichment of Teaching and Learning Process**

- i. Orienting the students by imparting basics of outcome-based education at the outset of semester
- ii. Implementation of MOOC, E-learning, flipped classroom and “Think–Pair–Share” concepts in multimedia and smart board equipped classroom
- iii. Additional coaching for slow learners through remedial classes, Enrichment through interdisciplinary courses for advanced learners
- iv. Involvement of industrial personnel for additional study sessions in and off the classroom
- v. Counseling the students having poor academic performance
- vi. 24 X 7 access to archived study material, digital library in addition to dedicated set of text books through central library and off academic hours access to departmental library
- vii. Dynamic curricula structure strictly in adherence with AICTE guidelines. Curricula content revisions with due help of an expert academicians, industrial personnel and internationally renowned pedagogical experts
- viii. Annual purchase of high end equipment and software for the development of state of art laboratories with additional virtual lab facility having remote accessibility
- ix. Grade moderation in relative grading to result into efficient and effective practice for students’ academic grade moderation
- x. Internal quality audit for question paper setting and assessment
- xi. Internal academic audit conducted twice a year to monitor, and to assess planning, delivery, evaluation, and attainment levels for every course, and improve the quality of teaching-learning process through counseling and appreciations.
- xii. Student feedback on organization, assessment, and delivery of course contents, counseling and guidance, twice a year to rate course teacher individually and relatively with other course teachers of that class thereby providing an opportunity for teachers to address their strength/s and weakness/es.

### **Aspect II: Enrichment of Skill Sets of Student**

- i. Promoting the students for their involvement in co-curricular activities within and outside the campus by assigning additional credit under an able guidance of faculty
- ii. Industrial training and internship since second year of UG program
- iii. Imparting need based training to the students to enhance employability and entrepreneurship
- iv. one-semester credit transfer through academic linkages with other reputed colleges to have exposure to different learning environments
- v. Conducting guest lectures, workshops and seminars to encourage higher education within and outside the country
- vi. Provision of language lab equipped with updated software
- vii. Extension of additional technical facilities such as open source platforms, software engineering codes and practices, plagiarism and grammar checks
- viii. Reimbursement of registration fees for paper publication

- ix. Proctor system - each faculty member work as a proctor for a group of twenty students ( five each from First year to final year B. Tech program) for counseling and better performance of students.

### **Aspect III: Interaction with Outside World**

- i. Establishment of tie-ups with renowned industries and institutes
- ii. Close interaction with society with problem solving aptitude through students project works, faculty consultancy and testing assignments
- iii. Empanelment of faculty as resource persons in various government and nongovernment organizations, reviewers for national and international journals and as an expert for effective implementation of various government schemes
- iv. Motivation and support for students for appearing competitive exams and summer internship in industries, research Institute in India and abroad.

### **Aspect IV: Faculty Development and Welfare**

- i. Sponsorship for development programs, higher education in institutes of excellence under QIP, participation in national and international conferences
- ii. Participative management with hierarchical support systems
- iii. Decentralization of autonomy to departments to result into efficient and effective academic and administrative functioning.
- iv. ERP implementationfor management ofLeave, Time table, Salary, Library, Exam and results, Fees Collection, Teaching learning processes, Hostel Admissions, etc.
- v. Appropriate functioning of grievance redressal mechanism
- vi. Ideal teacher award to one faculty every year
- vii. Implementation of CAS to promote faculty to higher post
- viii. Disbursement of festival advance, enrollment for life insurance scheme and additional remuneration to key functionaries working at college level



<b>Institute Name:</b>	<b>College of Engineering, Pune [COEP]</b>
<b>Institute State:</b>	<b>Maharashtra</b>
<b>Institute Address:</b>	<b>Pune [COEP]</b>

## Prevalent Best Academic Practices at COEP

- Regular and Major Revision in Curriculum at Structure level after every FOUR years, with Technology Roadmap guided by the Department-wise Industry Advisory Boards (IAB).  
After receiving 'AUTONOMOUS' Status in Year-2003, the iterations of Curriculum Revision have been systematically deployed with a regular frequency of FOUR years, viz. 2003, 2007, 2011 and 2015, with an upcoming revision in the Year-2019. Global and local technological trends and impacts are studied prior to such revisions, with 'LEARNER' as a nuclear focus, 'TEACHER' as an expert FACILITATOR' and reforms in TEACHING-LEARNING-EVALUATION (T-L-E) Process as mandated by 'OUTCOME based EDUCATION'.

Prevalent guidelines of national level regulatory authorities such as AICTE and UGC are followed in spirit in every such revision, with due consideration to recommendations of Professional societies like IEEE, ACM, ASME, ASCE etc. Curricula of Globally ranked benchmark Institutions (both overseas and national) are explored for incremental or disruptive betterments in every such revision.

Innovations are imbibed, considering rapid changes in Technology and Attitudinal changes in mindset of learners. A proper balance of 'theory and hands-on', 'knowledge and skills', 'behavior and attitude', 'taught and self learning' 'rigor and sincerity' is maintained in all such revisions, with an objective to create 'LIFE-LONG LEARNERS'.

- Choice based Credit System with Relative Grading and Transparent Evaluation, with Honors and Minor Certifications Schemes (with additional credits) introduced for aspiring Learners. A pool of state-of-art Open Electives, at Institute and Department level, cutting across departments and domains, is offered to the students at various stages of learning, and stands out as a "MULTIDISCIPLINARY" feature of the Curriculum. The elective basket includes wide spectrum of courses from Science, Engineering, Technology Mathematics, Management and Humanities. A voluntary (optional) participation in Honors/Minor chain of courses provides an opportunity to bright students to earn additional credits in his/her own domain/discipline of learning or cross domain (other disciplines), respectively. Both these schemes offer a 'CHOICE' to the learners with due or more 'CREDITS'. The spectrum of streams offered under these schemes embrace not only Engineering and Technology but allied important disciplines such as Financial Engineering, Applied Statistics, IoT, to name a few. All assessed answer scripts of all the examinations are shown to the students, justifying his/her aspirations, however, the freedom of relatively GRADING the Students, lies with the teacher, based on the category/type of the course and difficulty/challenge levels in the question paper.
- Inclusion of MOOCs, Liberal Learning courses, Industry Internships, Mini-project in the curriculum with due credits. Probably COEP is one of the few and first Institutes in the country to assign credits to the self learnt MOOCs, encouraging learners to enroll for course of their choice from a pool of rich online resources such NPTEL/SWAYAM, Coursera, EdeX, PurdueNext, Khan Academy, to name a few. The MOOCs can be completely self-learnt or proctored/mentored/blended by the in-house teacher, including examination and grading, and the earned grades accommodated on Institutes' semester grade card. A novel concept of 'Liberal learning courses' is introduced and implemented, both at UG and PG implemented to empower the students to undertake mentored learning in the domains of their hobbies and passion, viz., photography, music, film appreciation, agriculture, to name a few. Industry/Corporate internships for all students of UG and optionally for PG, in Summer/Winter vacations is a regular feature of the curriculum, that adds value to the learning, with the due exposure. 'Design-Simulate-Prototype (Build)-Test' mini-projects are to be mandatorily undertaken as a team activity at pre-final year, with emphasis on usage of modern software and hardware tools/platforms.

- Mathematics courses essentially in ALL EIGHT Semesters in UG Programs, Mandatory Program Specifics Mathematics course at ALL PG Programs. With a firm belief that MATHEMATICS is LANGUAGE of Engineers that instills and improves analytical capabilities of the learner, MATHS courses are philosophically and ubiquitously included across all semesters of UG on-campus. A customized 'PROGRAM-SPECIFIC' Mathematics course is introduced at all PG Programs, with intent to equip PG students with analytical tools in their own specialization, towards their prospective careers in Research and Development.
- Inclusion of Skill based courses at Undergraduate level, one in each semester. In addition to conventional laboratory courses, a ONE credit 'Skill based Course' finds its place at all semesters of all UG programs on campus, towards enhancing Employability and Entrepreneurial ventures attitude of learners in tune with Nation's 'Skill India' initiative".
- Co-teaching with Industry personnel for at least a single course in a Semester, in every department. Leveraging on the location of city of Pune, being hub of multitude of diversified industry, all departments are mandated to invite an Industry expert to 'CO-TEACH' at least ONE Course in a semester, wherein upto 20% of syllabus is delivered by the Industry associate. This brings an industrial flavor to the course, and probably another unique and novel feature of COEP's academic model. A similar engagement can be undertaken with Professors from Higher learning institutes like IITs/reputed Universities abroad.
- Students Exchange Program effectively implemented for Autonomous Colleges in the State with Credit Transfer Scheme deployed for a Semester. A Bilateral Students Exchange program among Autonomous Institutes in the State of Maharashtra, with Credit Transfer, has been conceived and deployed, with an intention to facilitate genuine and aspiring students from Autonomous colleges, to spend a semester at COEP and vice-versa. The earned credits are transferred to the respective institute of the learner, but more with a value-add, in terms of cross cultural and Experiential Learning. A bunch of COEP students generally opt for such academic semester-long internship at IITs or reputed Universities abroad with which COEP has signed formal agreements.
- Mandatory Courses on 'Innovation' and 'Entrepreneurship' in 2<sup>nd</sup> year and 3<sup>rd</sup> year respectively. In tune with Nation's vision of nurturing self employability through the attitude of Entrepreneurial ventures and start-ups, rather than job-seeking, ONE credit compulsory courses on 'Innovation' and 'Entrepreneurship' are offered to the UG students, with the belief of hopefully creating First Generation Entrepreneurs & Innovators.
- Intentional academic program expansion at PG and PhD, rather than UG with envisaged UG:PG Students' enrollment as 50:50 : Many technological verticals have been conceived and deployed establishing new, unique, multi-disciplinary and non-conventional PG programs on campus such as Power Electronics, Machines & Drives, Project Management, Mechatronics, to name a few. Other PG Program offers such as Robotics & Machine Vision, AI & Machine Learning, Data Sciences & Analytics etc. in the pipeline. A culture of FULL TIME PhD Scholars is being encouraged on campus by seeking financial support (fellowships and scholarships) from MHRD-QIP scheme, AICTE-NDF scheme, TEQIP/CoEs, Other funded Projects with faculty and Industry/Corporate. Out of 350+ PhD students on campus as on date, around 50 are full time scholars. Outcome oriented time bound research (towards PhD) has resulted into increase in quality publications in indexed, refereed and reviewed journals and top notch reputed conferences, IPRs etc.
- Administrative Structure to facilitate and validate Quality Assurance in Academic and Research Practices:  
Academic Senate is a deliberation platform for reforms in academic and research practices, with its frequency of meetings as 3-4 in an academic year, whereas Internal Quality Assurance Committee (IQAC) caters to aspects such students feedback on T-L-E process, regular Academic audits, Accreditation of academic programs and processes etc.

Best Administrative & Governance Practices at COEP

- Well documented processes for Procurement, Faculty and Staff Recruitment, Consultancy and R & D, Finance and Accounts, Faculty Development/Empowerment Schemes, Gymkhana, Students Development, Staff Welfare etc.  
-“Defined Processes bring uniformity and person-independence in taking decisions”
- Deans and Heads positions by Rotation of THREE years amongst Senior Professors. “All Potential Performing functionaries get an experience of Excellence-oriented Administration”.
- Delegation of Financial and Administrative powers down the Hierarchy from amongst Deputy Director, Deans, Heads, Administrative Officer, Registrar, Controller of Examination, various Central Port-folios etc., as per role and responsibility.-“Empowerment through Delegation enables swift implementation of Policies and Practices”.
- Minutes of Meetings of Board of Governors, Academic Senate, Building & Works Committee etc. available in Public domain on Institute's Website [www.coep.org.in](http://www.coep.org.in).-“Availability of Information at the finger-tips brings in Transparency for the Institute in Public eyes”.
- Mentoring upcoming Autonomous Institutes in the vicinity, which have a potential and desire to transform. -“Handholding the aspiring Institutes and sharing Best & Next Practices of COEP which is a part of Institute Social Responsibility (ISR) for COEP.”

All the BoG members contributing at least 100 hours a year towards Institute's development without Conflict of Interest, in various sub-committees of the Board.-“Contribution of Committed & Elite Board Members has fueled COEP’s Journey of Transformation towards Excellence”.

**Institute Name: Institute of Engineering and Management,  
Institute State: West Bengal  
Institute Address: Salt Lake Electronics Complex, Kolkata  
Website: [www.iemcal.com](http://www.iemcal.com)  
Email: [director@iemcal.com](mailto:director@iemcal.com)  
Phone: 033-23578189**

### **Prevalent Best Academic Practice**

Institute of Engineering and Management, Salt Lake Electronics Complex, Kolkata, has developed Academic ERP for Digitalization in technical institutions. The institute has been using this ERP, for last 8 Years and has been ranked Best Institute in Bengal by 'India Today'. Further, the institute has been accredited with 'A' Grade by NAAC.

Institute of Engineering and Management, Salt Lake Electronics Complex, Kolkata, may be contacted for adopting ERP, Website: [www.iemcal.com](http://www.iemcal.com) ; Email: [director@iemcal.com](mailto:director@iemcal.com)

Phone: 033-23578189