MIT College of Engineering, Pune

From the Secretary & Executive Director's Desk

What makes us stand apart is the value based education we offer with a unique blend of science and spirituality.

Unquestionable commitment, incessant diligence, a versatile personality, razor-sharp intelligence along with the smart use of it; are the demands of the twenty first century, more importantly, these are the building blocks of the students of MIT College of Engineering. Driven by their own purposes, they have an insatiable quench to conquer unexplored horizons. MIT College of Engineering, (MITCOE) Pune is a completely exclusive and progressively focused institution that seeks to pay tribute to the spirit of this modern generation. We seek to provide young aspirants this right platform to emerge winners and leaders in the professional world.

MIT College of Engineering took professional shape in MIT's state-of-the-art educational campus in the year 2001 to cater the students in the field of Engineering. It is a legacy of excellence in technical education that we have brought up with college. MITCOE is a state-of-the-art institute designed to bring the best out of its students. We address the specific needs of students in Indian as well as global scenario while endeavoring to meet expectations of industrial world and research fraternity from future engineers. We encourage students to achieve full potential in their career as engineers, researchers and as leaders with a global outlook.

MITCOE has been created out of recognition that our changing world produces situations that require emerging engineers to be equipped with more life skills. Our students take up the new challenges offered by a career in engineering, they in turn, enrich the profession bringing with them the benefits of their own life experiences. A highly competent faculty, state-of-the-art laboratories, computing facilities and adequate campus amenities have contributed to create the right atmosphere for the development of competent global citizens to serve the nation.

It is a matter of great pride and privilege to be the Executive Director of such a unique institute. In the last thirteen years we have progressed well ahead and will continue to do so in future. I would like to assure here that we are well directed and well focused on excellence in technical education. As an endorsement of our commitment to quality education, we were awarded with ISO 9001:2000 Quality Certification which is upgraded to ISO 9001:2008 certification. MITCOE has giant MoUs with renowned multinational & prestigious national companies for application of knowledge in various disciplines; in addition to this MITCOE has collaborated with various Universities abroad and has signed MoU with University of Venice Italy for exchange of faculty and students as well as for Machine Intelligence Research lab establishment as an extension of MIR lab USA for research activities.

We have some academic alliance with few industries also.

I have no doubt that our students would attain high levels of educational and professional achievements.

Prof. Dr. Mangesh T. Karad
Secretary & Executive Director,
MAEER's MIT Group of Institutions

From the Principal & Vice Principal's Desk

I welcome you to MIT College of Engineering with pride. It is an honor and a privilege to be the Principal of MITCOE. Catering to more than 3400 students, MITCOE is considered among the best and most sought after colleges in Pune city. We feel proud to provide quality education by equipping our students with skills, confidence and a positive approach with an all-round development

MIT College of Engineering established in 2001, has come to be known as the destination of choice for aspiring Engineers throughout India. A combination of the futuristic vision, meticulous planning and abiding commitments, are the hallmarks of all MAEER ventures and, is the key to this position of eminence. We draw our inspiration from our Founder President, Prof. Dr. Vishwanath D. Karad, himself a professional Engineer par excellence and a pioneering proponent of combining spirituality with Science.

Technical Education is the backbone of any nation and is the stepping stone for a country to move into the niche of a developed nation. We focus to empower students with sound knowledge, wisdom, experience and training both at the academic level of Engineering and in the highly competitive global industrial market.

Our Hon. Prof. Dr. Mangesh T. Karad, believe that along with excellence in teaching and learning, research and innovation is the key for future development.

Education is not an act of acquiring knowledge but learning a skill to lead life and forming one's personality. This is an ennobling process of growth. I can boldly say that we have excelled in every initiative that we undertook and we have stood together in facing the challenges in realizing quality education. In all this, we have made every effort to be sensitive and compassionate to the marginalized and the people in need.

At MITCOE, students and staff truly believe that nothing is impossible and that is the secret of MITCOE's success.

My best wishes to all.

Dr. M. S. Nagmode
Principal-MITCOE

It gives me immense pleasure in welcoming you all to the MIT College of Engineering, Pune. We, the faculty, staff and administration at MITCOE will work for producing technologically superior and ethically strong engineers for the country and the world with a purpose to serve the society & mankind. We, at MITCOE, would like to encourage all students to thrive for the best to make them knowledgeable in their relevant branches of engineering. As a result of our size, we are committed to focus on the needs of each individual student and aim to nurture each student and ensure their journey at MITCOE is a successful and life-enhancing experience. We strive for excellence in what we do, the Institute is constantly making endeavor's to scale new heights by developing synergy between academic knowledge, technical skill set in line with industry needs, high moral values and sensitivity to the environment and the nation.

The students here have a wide range of choice of courses from the traditional branches like Civil, Mechanical to the Hi-tech branches like Electronics, Computer & IT etc. The departments are aesthetically designed in modern building blocks to ensure high degree efficiency in the teaching / learning process and the entire environment is conducive and ideally suited for any kind of academic activity.

Our College has created many students with Pune University Ranks in the past. Beside academics, students are also encouraged to take part in extracurricular and co-curricular activities and many of our students have brought laurels to the Institution. Hard work, effort and commitment from students, combined with our dedication to excellence, experienced staff and world class facilities mean students have the best chance to reach their full potential at MITCOE.

I feel happy and delighted to welcome our incoming students and my best wishes for their brilliant academic career at MITCOE.

Dr. Ramachandra V. Pujeri
Vice Principal-MITCOE

Vision
To empower Young Generations for substantial contribution to economical, technological and social progress of the society.

Mission
To be globally, Socially conscious institute of research and innovation with an excellence in professional education to take up the challenges of change for benefit of the society.

Education is simply the soul of a society as it passes
from one generation to another.

About MIT College of Engineering, Pune

MITCOE (ISO:9001-2008 Certified), is situated in a serene part of the spectacular yet quiet MIT Campus at Kothrud, Pune, INDIA.

Healthy competition among the students is another tool that is used widely to let students excel themselves and to identify leaders from amongst them. Involvement of industry professions in the development of students is another area where our college is focusing with considerable success. We recognize that merely imparting the chalked out syllabi education will make MITCOE just another college. We therefore ensure constant intellectual challenges by taking up in-house and industry based Research Projects in many leading cutting edge technologies of relevance. Further grooming of students takes place with a number of co-curricular programs including soft skill development, additional technical skills with the participation of renowned professionals from industry and business. Finally to make them complete individuals, extra-curricular activities such as Sports and Arts are encouraged.

To ensure our students are amongst the best placed professionals in the industry, the best contributors to the society, practicing the best of human values we take utmost care and deliver our best.

Training and placement department is actively involved in recruiting out students in highly reputed MNCs and National companies with salary package of 10 lakhs p.a. approximately.

Ph. D. Research Centre
* Electronics and Telecommunication Engineering
* Mechanical Engineering

Infrastructure

A state-of-the-art infrastructure of international standards has been developed for each discipline of study that goes far beyond the stipulated requirement. We have very well planned laboratories built around a modular concept that stimulates a near industry environment. Our IT infrastructure, comprising nearly 1100 PCs and three state-of-art servers backed by professional System managers, is at par with the best in the country. With round the clock web access, our students can reach globally for enhancement of their knowledge and career.

Faculty

A highly qualified and experienced faculty complements this excellent infrastructure. It comprises of professionals from both industry and academics, providing students glimpse of how their theoretical knowledge is applied to real-life business and industry problems.

Co-Curriculum Programs

We recognize the fact that all-round personality development is the key to success in professional life of an engineer. We offer our students a number of options to develop and enhance their soft skills in languages,

communications, presentation and teamwork. Additional programmes for acquiring specific technical skills / knowledge are conducted to suit their specific interests. Besides they are periodically advised to focus on subjects that will increase their overall expertise as an engineer.

Courses

Degree Courses	Intake
• Electronics & Telecommunication Engineering	120
• Computer Engineering	120
• Information Technology (I^{st} Shift)	120
• Information Technology (IInd Shift)	60
• Mechanical Engineering (I^{st} Shift)	120
• Mechanical Engineering (IInd Shift)	60
• Civil Engineering	60

Post Graduate Courses	Intake
• Masters in Electronics and Telecommunication (VLSI & Embedded System) (I^{st} Shift)	18
• Masters in Electronics and Telecommunication (VLSI & Embedded System) (IInd Shift)	18
• Masters in Information Technology (I^{st} Shift)	18
• Masters in Information Technology (IInd Shift)	18
• Masters in Mechanical - Heat Power Engineering	18
• Masters in Computer Engineering	18
• Masters of Business Administration (I^{st} Shift)	60
• Masters of Business Administration (IInd Shift)	60

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The administration of justice is the firmest pillar of education.

Administration

The administration at MIT College Of Engineering plays an important role in the operation and management of the learning institute. It ensures support to develop and execute various beneficial programs and courses for students while also overseeing the operation of the educational organization. The office has a wide range of daily job responsibilities that includes managing teachers and faculty, developing and leading training programs, preparing annual budgets, allocating funds appropriately, conducting exams , maintain students and faculty records.

It also handles the procedural matters of Directorate of Technical Education, Department of Higher and Technical Education, All India Council for Technical Education and Savitribai Phule Pune University.

Headed by Mr. P. N. Bhalerao the office works in cohesion with the other departments to achieve the objectives of the management and trust. This section is the backbone of the institute.

Departments

- Electronics & Telecommunication Engineering

- Computer Engineering

- Information Technology

- Mechanical Engineering

- Civil Engineering

- Core Engineering & Engineering Sciences

- Master of Business Administration (MBA)

ELECTRONICS & TELECOMMUNICATION ENGINEERING

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Vision

To become a nationally leading department of academic excellence building upon the culture and the values of universal science and contemporary education, and a centre of research to develop our students technologically superior and ethically strong.

Mission

To create an environment that shall foster the growth of intellectually capable, innovative professional who can contribute to the growth of technology and harness it for the welfare of the nation and mankind.

Degrees offered	Duration	Intake	Entry requirements
B.E. - Electronics & Telecommunication Engineering	4 years (B.E.)	120 seats (B.E.)	B.E. - H.S.C. + JEE. (Mains)
M.E. - VLSI & Embedded Systems	2 years (M.E.)	36 seats (M.E.)	M.E. - B.E/B.Tech., (GATE)
Ph.D. - Electronics and Telecommunication Engineering			Ph. D. : As per Pune University Norms.

Introduction

MIT College of Engineering aims at creating a vibrant and stronger India through Electronics and Telecommunication Technology. The Department of Electronics and Telecommunication came into existence in 2001 by the approval of All India Council of Technical Education(AICTE). Since then the department has come a long way and is now regarded as one of the premiere departments of the university. It is equipped with outstanding infrastructure, learned and dedicated faculty members and sincere staff who work with zeal and enthusiasm to provide a vibrant and optimum learning environment to the students and help them to acquire the skills which are required to excel in today's competitive environment.

In order to ensure high standards of education for the students, the department has constantly upgraded itself by adding well-equipped and fully furnished laboratories to supplement the theory courses. The department believes in serious academic pursuit and encourages radical and original thinking which paves the way for creativity and innovative ideas. The qualities inculcated into the students make them not only good engineers but good human beings.

B.E (Electronics and Telecommunication Engineering)

The department conducts four years degree course in 'Bachelor of Engineering' in Electronics and Telecommunication affiliated to the University of Pune.

M.E. (VLSI & Embedded Systems)

Department of Electronics and Telecommunication Engineering also offers this two year, four semester course, approved by AICTE, New Delhi and affiliated to the University of Pune.

Ph.D. (Electronics and Telecommunication)

University of Pune approved Ph.D. research centre in Electronics and Telecommunication.

Hi-Tech Laboratories

MITCOE offers a rock solid infrastructure consisting of the following laboratories :

* Basic Electronics Laboratory
* Electronics Devices & Circuits Laboratory
* Electronics Laboratory
* Power and Projects Laboratory
* Microprocessor Laboratory
* Communication Laboratory
* Computer Laboratory 1
* Computer Laboratory 2
* VLSI & Embedded system Laboratory
* Research and Development Laboratory

Each laboratory is set-up on the work bench concept where each bench is totally equipped with all the necessary setup and measuring devices. Each laboratory also has a web enabled PC for instant access to the internet. All the latest versions of softwares like Tanner, Multisim, MATLAB, C & C++ and Xilinx along with ModelSim are regularly used in various laboratories.

Departmental Library

Apart from the main library of the Institute, the department also has its own well developed library comprising with a collection of several books/ journals/ magazines. In addition, Reference Books and other informative resources are also made available. Department Library has 710 total numbers of books. Also the library is equipped with DVDs & CDs of different subjects.

About the Faculty

At MITCOE, we believe that the faculty plays a fundamental role in the development of students. Our faculty has a harmonious blend of academic and industry back ground. The faculty keeps pace with the latest global developments by attending seminars, conferences, workshops and value addition programs.

The faculties are grouped under the following technology heads :

- Communication
- VLSI and Embedded Systems
- Signal and Image Processing
- Electronics Design

Events

The Department conducts various events which include workshops, competitions, expert lectures of industry people and well known faculty members in their expert areas and various exhibitions such as project exhibitions. During the last academic year we conducted around 20 expert lectures by eminent personalities from different areas. Around 5 Industrial visits were arranged for students throughout the year to enhance their practical knowledge. Various workshops are conducted for the students to facilitate additional knowledge of a particular subject. To enable

students for sharing their technical skills and innovative ideas we have "Kretz", a student's technical Magazine. In addition, we have student chapters like IEEE, IETE to explore the student's growth in technical skills. Also, we have non-conventional energy forum and value based education forum for students development.

Research Work

Electronics and Telecommunication Department of MITCOE is a recognized Ph.D. Research centre affiliated to University of Pune. The department is actively engaged in research areas ranging from practical implementation to theoretical investigations for the various fields like Speech processing, Signal processing in Wireless Communication, Multi Antenna System Signal and Video Processing, Embedded and VLSI system design, Video processing, Image Processing, Wavelets and Biomedical fields.

The Institute has initiated activities for research and development in relevant areas of VLSI and Embedded Systems. The laboratories are equipped with Electronic Design Automation (EDA) tools such as Microwind, Modelsim, Tanner, NIOS-II, Quartus-II, Labview and FPGA trainer kits viz. SPARTAN-II,III, Virtex-4 and Synthesis tool from Xilinx.

The department consistently publishes research work in reputed Journals and International Conferences every year. Frequently new ideas and techniques are patented, based on their research work. The department is equipped with the state of the art experimental and computational facilities for undertaking R&D and consultancy activities in various fields. Major labs where research is conducted are Research and Development lab, VLSI and Embedded system lab, Advanced communication lab.

MIT College of Engineering

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Vision
To empower young generations for substantial contribution in the field of computer and allied domains for the progress of society.

Mission
To develop outstanding computer engineering professionals who will lead technology and knowledge based industries in the service of society.

Degrees offered	Duration	Intake	Entry requirements
B.E. - Computer Engineering	4 years (B.E.)	120 seats (B.E.)	B.E. - H.S.C. + JEE (Mains)
M.E. - Computer Engineering	2 years (M.E.)	18 seats (M.E.)	M.E. - B.E./B.Tech, (GATE) Qualified

Course Information

The subjects of this department are designed to develop problem-solving skills. The course thus has immense practical value in designing of hardware and programs in a vast range of application: in pure Sciences, Robotics, Communications, Industrial Management and in Business.

The department has setup laboratories with latest equipment conducting a four year degree course in "Bachelor of Computer Engineering" affiliated to the Savitribai Phule Pune University. Graduates have opportunities to seek employment in roles such as software engineering, business analyst, networked applications developer, solution and enterprise architect, researcher, project leader, process, Client manger and IT educator.

Introduction

The MIT College of Engineering established the Department of Computer Engineering in the year 2001-02. They offer undergraduate 'Bachelor of Engineering' degree in a four year degree course affiliated to Savitribai Phule Pune University. They also offer postgraduate 'Master of Engineering' degree with the focus on the advanced subjects in Computer Engineering.

The curriculum is designed to understand the potential of computation, algorithms, systems, software, architecture and networks and also includes the subjects for Software Engineering Practices. Teamwork, communication skills, an interdisciplinary approach to problem solving and a research attitude are some of the skills that the students develop through various technical and co-curricular activities.

Program Education Objectives (PEOs) (2014-15)

I. Industry-ready and knowledgeable engineers: To prepare graduates to acquire a fulfilling professional knowledge and management practices for employment in industry and postgraduate study in engineering

II. Productive and modern engineers: Develop competence in applying knowledge of mathematics, science, and engineering; enabling graduates to solve engineering problems in a modern technological society as valuable productive engineers.

III. Multifaceted computer professionals: To expose students to various computer engineering areas that broaden their technical depth and breadth enabling them to function on multidisciplinary domains for societal and environmental benefits.

IV. Innovative thinkers and researchers: To provide an individual with an academic environment and to motivate and inculcate innovative thinking and research capability using modern tools and techniques.

V. Ethical Professionals: To instill a sense of socio-economic, professional-ethical responsibility and an ability to communicate and work with team effectively.

Program Outcomes (2014-15)

a. To demonstrate an ability to apply knowledge of mathematics, science and engineering

b. To demonstrate an ability to design and conduct experiments, as well as to analyze and interpret data

c. To an ability to design a system, component, or process to

meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

d. To demonstrate an ability to innovatively think, visualize and function on multidisciplinary teams

e. To demonstrate an ability to identify, formulate, and solve complex engineering problems

f. To develop an understanding of professional and ethical responsibility

g. To be able to communicate effectively in both verbal and written form

h. To develop an understanding of the impact of engineering solutions in a global, economic, environmental, and societal context

I. To be able to recognize the need for, and will be able to engage in life-long learning

j. To demonstrate a knowledge of contemporary issues such as societal, legal and cultural issues

k. To be able to use the techniques, skills, and modern engineering tools necessary for engineering practice.

l. To demonstrate the understanding of engineering and management principles to manage projects and work individually as in a team, and in multidisciplinary environments

High-Tech Computer Laboratories

MITCOE provides infrastructure with `State-of the-Art` computer laboratories were eight computer labs having 30 PCs are well equipped with latest computer configuration, peripherals and software and one is dedicated for Project and Research work. The laboratories are connected with fiber-optic backbone network with the campus network. Internet facility is provided to the college and a team of three network administrators maintains the network system. Novell Netware 5.1, Windows XP, Fedora 7, MS official XP and Turbo C, Oracle Database Server, Visual Studio, IBM Rational Rose, MATLAB are a few of the softwares used for academics

and research work. This year Department of computer engineering collaborated with NVidia and got selected as GPU Education center to encourage students for High Performance Computing and Big Data research.

About the Faculty, Staff and Policy

The department at MITCOE has an experienced team of 29 faculty members. It has strong groups working in the areas of data mining and machine learning, in NLP, Networks (including wireless networks) ,Big Data and in cloud computing. Our faculty attends training programs that cover the latest industry trends in computer engineering and also conduct guest lecturers in their area of expertise.

The department always takes initiative in organizing different technical events, conferences, STTP's workshops, FDP's, Seminars and Guest Lectures time to time so that faculty members, staff as well as students are aware of new technologies and latest trends. In this year we have conducted Conference Fossumit.

Post Graduate Program

Department of Computer Engineering also offers ME Computer program since 2011-12, for two years and four semester approved by AICTE, New Delhi and affiliated to the Savitribai Phule Pune University. Exposure to new technologies and open-source software is given to students by organizing workshops and webinar by the department. Also an opportunity for project internship at various companies is available.

Computer Department Activities at a Glance during last year

1	Papers Published in International Journals	30
2	Seminars/Workshops/Trainings/FDPs Organized	12
3	Funded Research Projects	04
4	Members of Professional Bodies	26
5	MOUs/ Agreements	04
6	Industry Visits	04

INFORMATION TECHNOLOGY

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Vision
To create multifaceted IT professionals with a mindset of research and innovation to meet the challenges of technological development.

Mission
Quality Professional Education: To impart quality professional education in the area of Information Technology so as to make them socially responsible citizens.
Innovation : To establish the centre of excellence(s) in emerging areas of Information Technology in collaboration with industry, government agencies and others for sustainable development and growth for showcasing students creativity to the society.
Collaborations : To enhance industry-Institute interaction for analytical and logical abilities development towards team development with awareness of lifelong learning

Degrees offered	Duration	Intake	Entry requirements
B.E. - Information Technology Engineering	4 years (B.E.)	180 seats (B.E.)	B.E. - H.S.C. + JEE (Mains)
M.E. - Information Technology Engineering	2 years (M.E.)	36 seats (M.E.)	M.E. - B.E./B.Tech, (GATE) Qualified

Introduction

Information Systems includes study of systems of human and technical components that accept, store, process, output and transmit information. Thus, Information Technology and Information Systems merge together to deliver the complete IT solution. Last two decades has shown that India has emerged as a pool of knowledge source and the field of Information Technology has contributed enormously to this.

At MITCOE, the IT department trains in developing effective communication skills, leadership qualities, team work and innovative thinking. The department exposes students to diverse academic environments, real life situations and industrial interaction. With a fine blend of industry and academic professionals the department regularly organizes technical Seminars and Workshops for students. The progress of students is evaluated continuously with the help of tests, assignments and mock exams. The staff members regularly upgrade their skills and keeps themselves updated with latest trends and technologies by research work and publishing papers in national and international journals and conferences. Faculty also works on externally funded projects from various agencies as well as industries.

The students are encouraged to participate in extracurricular activities which give them opportunity for overall personality development. Many of our students have participated and have won prizes in paper presentation, project competitions, technical events, sports, fashion shows and various cultural activities. Department also publishes newsletters and E-magazines wherein faculty and students contribute their articles.

Under Graduate Program

B.E (Information Technology)

B.E (IT) is four years duration program, affiliated to Savitribai Phule Pune University, Maharashtra and approved by the All India Council for Technical Education [AICTE], New Delhi. Teaching methodologies include lectures, discussions, practical, tutorials, course assignments, seminars and project assignments etc.

Each academic year is divided into two semesters having an average of 14 to 16 weeks per semester. The academic terms are spread over the duration from July to December and January to June.

Infrastructure

Classrooms: All the classrooms are well equipped with LCD/OHP projectors, with UPS backup to facilitate the usage of audio- video contents during regular presentations for lecture sessions.

Departmental Library:

In addition to books/ journals/ magazines available in the main library of the institute, the department also has a well-developed library of its own. Department Library has 319 titles and 493 books. The departmental library is also equipped with DVDs & CDs of different subjects in the field of Information Technology.

Laboratories and Software:

Department has Hi-Tech excellent Computer Laboratories equipped with 318 PCs with the latest configuration. Laboratories are well equipped with state of the art infrastructure with new hardware, software and with UPS back up. All PCs in each laboratory are networked and have internet facility with 10 Mbps leased line. Novell Netware 5.1, Windows 2007, Red Hat Linux 9.0[Shrike], MS Office XP, Turbo C, TASM, Rational Rose, Oracle 9i database server, Visual Studio. Net series are few of the software which is used for academics and research work. We also have QualNet Simulator for research work and other necessary software.

Co-curricular activities

TESLA is a inter collegiate National level competition which includes various competitions like programming contests, paper presentations, B.E. project competition, Quiz competition, Gaming competition and Tech talks and workshops which provide upcoming engineers with a platform to showcase their talent. This event has received tremendous response from students of colleges from various parts of Maharashtra. Another popular event is the MIT – TechnoGenesis which is a national level innovative project exhibition that draws entries from across the country. Apart from this mega event, department keeps organizing various events throughout the year to prepare students to face the ever changing world of technology by imparting various skills required through these events.

To keep our faculty and students abreast of the developments, we conduct short term training programs, conferences, workshops and arrange invited lectures on advanced topics. International certification programs are run in the department to enhance the skill set of students which helps them to increase their employability quotient.

Research Activities in the Department

Dedicated research laboratory with net enabled core i5 machines equipped with various open source softwares like NS2, LaTex, Scilab as well as licensed softwares like Qualnet, IBM RSA Suit, MATLAB, XILINX etc. are available for project work of the students.

Faculties and students are working in various research domain that include, Wireless Networks, Image Processing, Distributed Systems, Advanced Software systems, Mobile Computing and Advance Information Systems.

Post Graduate Program

M.E. [Information Technology]

To foster research along with the academics in the department, we started the post graduate course in Information Technology. Department is successfully running ME [Information Technology], a two year Post Graduation program with annual intake of 36 students. It started with the intake of 18 students in 2008-09 and in the year 2011, the department got AICTE approval to run PG course in second shift, with the intake of 18 students.

Dissertation work in ME course reveals the depth of work. So far more than 95 PG projects have been completed in the department which is fine blend of in house projects, and industry sponsored projects with emphasis given on research component to enhance the quality of the projects. Some of the students have taken a one step forward in this direction and have filed patent on their ME dissertation work. The students are exposed to the cutting edge technologies and hands on experience through various quality events like STTPs, workshops and invited talks.

Department has research strength in following domains

- Wireless Networks
- Image Processing
- Software Engineering
- Distributed Systems
- Mobile Computing
- Cloud Computing
- Advanced Information Systems

With the expertise and resources available in the Department, students have made their mark in research community by having patent to their credit.

We are committed to impart quality education and nurture the students as professionals with innovative mind set who will serve the Nation to the best of their capability.

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Vision

To be one of the leading departments disseminating globally acceptable, effective education & industrial training with relevant research output.

Mission

To create dexterous Mechanical Engineering Professionals to meet global technological challenges through research & innovation for the benefit of society.

Degrees offered	Duration	Intake	Entry requirements
B.E. - Mechanical Engineering	4 years (B.E.)	180 seats (B.E.)	B.E. - HSC+JEE (Mains)
M.E. - Heat Power	2 years (M.E.)	18 seats (M.E.)	M.E. - BE/ B.Tech, (GATE)
Ph.D. - Mechanical Engineering			Ph. D. - As per Pune University Norms

Introduction

The Mechanical Engineering is the most versatile and core branch of engineering comprising of Thermal, Design and Production streams. Fierce competition and complex technological breakthrough has widened the scope of Mechanical Engineering branch. Curriculum of this course is designed to meet current industrial requirements with an emphasis on industrial interaction and applied engineering. The course has been approved by AICTE, New Delhi and affiliated to Pune University.

The Mechanical Engineering Department has received research grants from All India Council of Technical Education (AICTE), Department of Science & Technology (DST), DRDO, University of Pune and other agencies to conduct research in the areas of CAM, Robotics, Energy, CFD and Heat Transfer. Mechanical Engineers are required in industries like Aeronautical, Marine, Automobile, Electrical and Electronics industries, Software/Hardware/IT, Production and Manufacturing Industries, Oil Exploration and Refinery, Foundries and Steel Plants, Power Plants, Agro based Industries, Chemical and Processing Industries, Textile Industries, Fertilizer Industries etc.

Mechanical Engineers have ample opportunities in government sectors like Ordnance factories, Research and Development Organization, Space Research programs, DRDO, State Government. Students are encouraged to appear for the various competitive examinations like GATE, UPSC, MPSC, GRE & TOEFL etc. Mechanical engineers are also engaged in developing software and serving in titans like TCS, INFOSYS, and Persistent Systems etc.

Liberalization, Privatization and Globalization have changed economic scenario and created very good opportunity for the Mechanical Engineers to play a vital role.

Laboratories

Mechanical department has 15 different laboratories to cater to the academic courses and the research work. Few of them are Heat Transfer, Applied thermodynamics, CAD-CAM, Theory of Machines, IC Engine, Fluid mechanics, Dynamics of Machinery, Industrial Fluid Power, Mettalurgy, Mechatronics etc. Approximately of Rs. 2 crores has been invested for setting up these laboratories.

Library

Apart from the main library (including online facility) of the institute. Department has separate departmental library. This contains the books that are commonly required by the students of Mechanical Engineering discipline.

Teaching Learning Process

Qualified faculty members who are assigned with various theory subjects prepare the course plans using the standard format provided by the institute which emphasis on 'learning'. The instructional or lecture delivery of the faculty will be through a set of Educational Technology/ Tools opted by the faculty. The lectures lay emphasis on the following:

• Knowledge content (topics in the curriculum)

• Utility value - application in real life

• Latest developments

The classroom sessions are interactive and encourage the students to think independently and inspire their creativity. The faculty will ensure that the students in the class have assimilated the content projected. High level of discipline will be maintained in the classroom. The faculty members are empowered to curb any disturbance and ensure that the time is used fruitfully. Classroom instructions are supplemented by students' presentations and / or guest lectures by external / internal experts and industrial visits.

Extracurricular Activities

Students get an opportunity to participate in various Technical & Sports competitions at College/ University/ National level viz. ROBOCON, SUPRA, BAHA, etc. College also organizes a National level technical event for students called TESLA. Apart from this students participate in many cultural competitions like Purushottam & Firodia Karandak. The blend of this technical and cultural exposure helps students to develop their personal skills and knowledge.

Post Graduate Program

Master of Mechanical Engineering- Heat Power Engineering is a two year degree course comprising of four semester affiliated to University of Pune (India). The course includes various subjects related with Heat Power Engineering. Students get opportunities to do various projects in different industries. Eminent Professors and Professionals are invited for motivating and inspiring PG students. Industrial and Research laboratory visits are also arranged to expose students to recent developments in the field of Mechanical Engineering. Training & Placement department arranges interviews for placements and internship programmes for PG Students.

Research Work

Mechanical Engineering department has started a Ph.D. Center affiliated to University of Pune from AY 2013-14. Presently mechanical department has 4 Ph.D. faculties and 11 faculties are pursuing their Ph.D. research work.

Various research projects in the field of Heat Transfer, Computational Fluid Dynamics, Vibration, and Design Engineering are currently going on in the department which are sponsored by BCUD & AICTE.

Projects completed: Funded Projects worth Rs. 6.1 Lacs
Projects sanctioned: Rs. 30 Lacs
New Project applications: Rs. 2.65 Crore

At MITCOE, the emphasis is laid on the following major research areas of mechanical engineering

• Design Engineering

• Thermal Engineering

• Automotive Engineering

• Mechatronics

• Energy

• Manufacturing Engineering

• Entrepreneurship

• Robotics

• CAD/CAM

The research streams are in line with the national interest.

CIVIL ENGINEERING

Dr. Ramesh D. Dod
Professor & Head
B.E. (Civil), M.E. (Civil), Ph.D.
(Civil Engg, IIT-BHU), FIE
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Vision
To create outstanding Civil Engineers of high caliber with sound technical knowledge capable of facing the challenges of the future.

Mission
To encourage innovative and original thinking among the students. To maintain an intellectually challenging with a supportive environment. To impart quality and value based education of global standards.

Degrees offered	Duration	Intake	Entry requirements
B.E. Civil Engineering	4 years	60 seats	HSC+JEE (Mains)

Introduction

We take great pleasure to present this Civil Engineering course for the students. It is core engineering branch which highlights aspects necessary for infrastructure facilities needed in any branch of engineering. The course is structured such that the students understand the latest techniques, equipments, applications and automations. This field practices gives insight to all features of the construction industry. Here the students have the best platform to explore themselves beyond their imaginations and evolve as perfect individuals in all domains of life. The students are guided and motivated professionally to evolve as perfect technocrats to satisfy dynamic needs of the global construction industry.

Curriculum of this course is designed to meet the current industrial requirements with an emphasis on industrial interaction and applied engineering. The course has been approved by AICTE, New Delhi, and Affiliated to Pune University.

This course includes various topics/subjects with which the Civil Engineering is concerned. The Department has good liaison with Industries and various Research Centers, Eminent Academicians, Researchers, and Professionals are invited for motivating and inspiring young minds of future technocrats.

Laboratories

The Department is well equipped with following laboratories.

- Surveying
- Engineering Mechanics
- Basic Civil Engineering
- Testing of Materials
- Geology
- Geotechnical Engineering
- Fluid Mechanics
- Environmental Engineering

Strengths of Civil Department

- Stable, qualified & experienced faculty
- Well equipped laboratories
- Strong teaching learning process
- Good industry –institute interaction

Library

Apart from main library (including online) of institute, the department has separate departmental library which includes books that are commonly required by the students of Civil Engineering Discipline.

CORE ENGINEERING & ENGINEERING SCIENCES

Dr. Shalini Garg
Head of Department
Ph. D. (Applied Physics)
Ph.+91 20 30273141
E-mail: shalini.garg@mitcoe.edu.in

Introduction

Welcome to the MIT college of Engineering the youngest yet a unique Engineering college of MAEER'S Group of Institute. Here the students have the best platform to explore themselves beyond their imaginations and as perfect individuals in all domains of life. With the mission of MIT college of Engineering is focused to propel the students to exploit the resources to the maximum and evolve as hard core professionals imbibed with the valued principles. The four year course begins with foundation course i.e. First year Engineering. The transition from typical school environment to professional course happens in this one year. The students are guided and motivated for good presentations, technical educations, attendance, punctuality, discipline etc. The First year Engineering course is supported by various sub departments like Mathematics, Applied Science (Physics and Chemistry), Electrical, Civil, Mechanical & Electronics Engineering.

Infrastructure

An excellent infrastructure in terms of well equipped laboratories supported by highly qualified staff provides conductive learning environments. All laboratories have the latest equipment to meet the requirement of syllabus.

About the Faculty

We firmly believe that given a right direction and support, every individual has the ability to excel in their performance. With this line of thought, we as a faculty take up the responsibility of being a friend, philosopher and the guide to students. Hence the faculty becomes an integral part of the students overall development and performance. Most of the faculty members have completed their Ph.D and are actively involved in research work.

During the last academic year, faculty members have published 10 research papers and 6 patents.
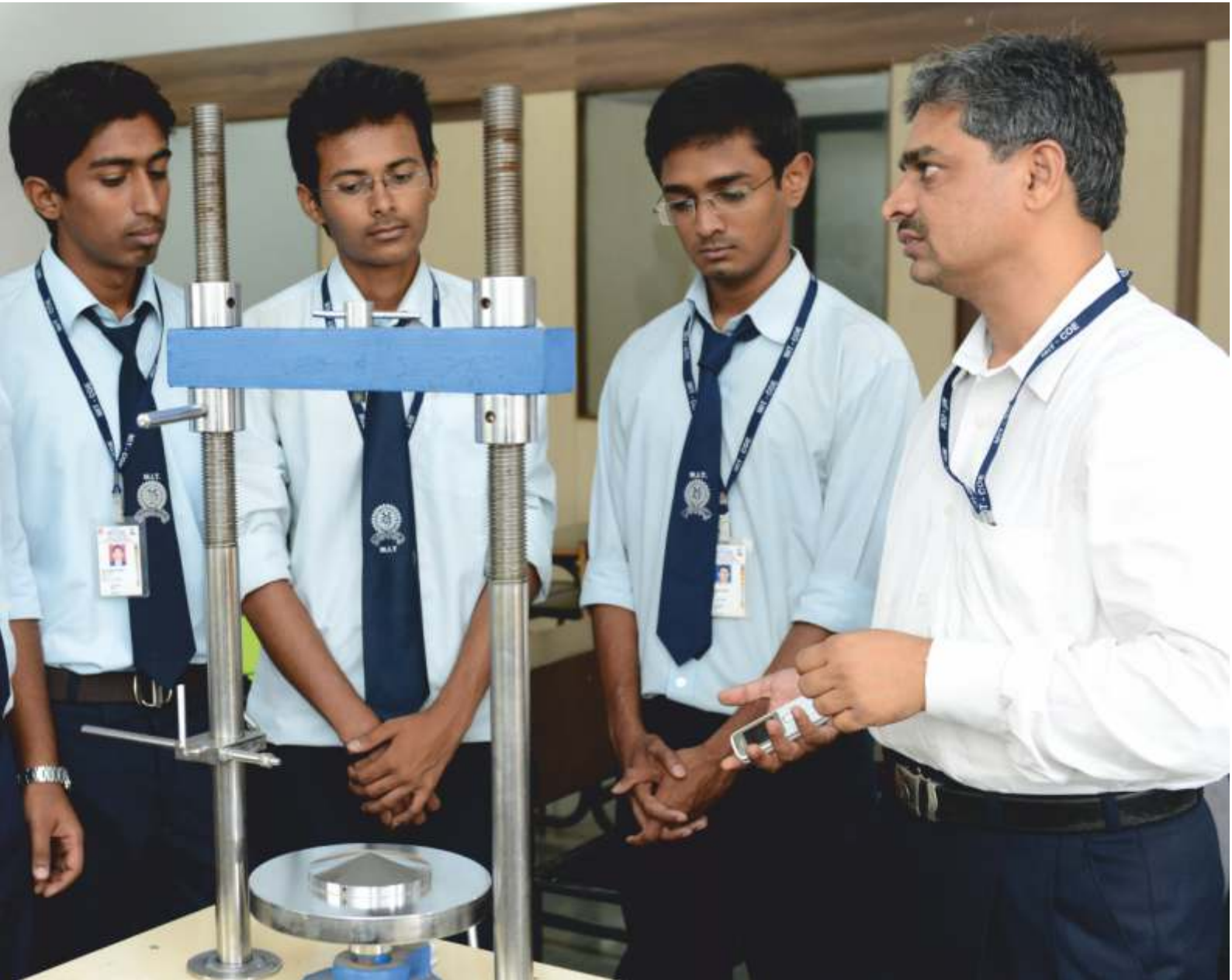
Laboratories

The department is well equipped with laboratories as under

- Basic Electrical Engineering Laboratory
- Physics Laboratory
- Chemistry Laboratory

Department has research strengths in the following domain:

- Fluid Dynamics
- Atmospheric Science
- Graph Theory
- Lattice Theory
- Conducting Polymers
- Asymmetric organic synthesis
- Physics of nanomaterials
- Nanophotonics
- Power system protection
- Power Electronics

Major Contribution in research projects	
Name of Faculty	Area of Research & Projects in progress
Dr. P. Kumar	Metrology, Fluid Dynamics, MHD flow, Applied Mathematics, Statistics, Qualitative Technology. Principal Investigator in research project entitled "Hailstorm Management Strategy in Agriculture" funded by Indian Council of Agriculture Research (ICAR) Ministry of Agriculture, Government of India. (3 crore)

MASTER OF BUSINESS ADMINISTRATION (MBA)

Vision

To empower young generations for substantial contribution to economical, technological and social progress of society.

Mission

To be a globally, socially conscious institute of research and innovation with an excellence in professional education to take up the challenges of change for the benefit of society.

Degrees offered	Course Offerings	Duration	Intake	Entry requirements
Master in Business Administration	Our courses are approved by the AICTE, DTE and affiliated to the University of Pune.	2 years	120 seats	Graduation + CMAT / CAT / JMET / MAT / XAT / ATMA
Specialization Marketing, HR, Finance, System				

Genesis

Prof. Dr. Mangesh Karad, the reputed educationist, has translated his innovative thoughts for this Institute into action and presented them into the realms of reality in the form of Centre for Management Studies and Research Institute.

Prof. Karad's dynamic leadership, his constant stiriving for perfection and excellence in the field of management education is mirrored by the institute that function under the rubric of MAEER's MIT Group of Institutes.

CMSR is a ISO 9001-2008 certified Institute. It is also in the process of getting assessed by NBA, for accreditation.

CMSR focuses on management education, training and research to help students keep pace with the demands of a challenging career. We are committed to training competent managers through excellence in teaching and focus on quality.

The Institute is supported by invaluable advice and direction from the Governing Body and Academic Council which include eminent personalities from both industry and academia.

Beliefs

CMSR strongly believes in inclusive and sustainable development. This belief translates into a number of CSR activities such as:

- Helping underprivileged and downtrodden
- Tree planting
- Blood donation
- Extending help to differently abled children etc.

Our values emphasize on the holistic development of our students and thus our curriculum includes several:

- Executive series lectures
- Outbound programs
- Industrial tours
- Seminars
- Conclaves
- Lectures by national and international speakers on various topics of management.

CMSR is a strong proponent of Quality and completely believes that Quality is the only tool that will give a cutting edge to survive in a fiercely competitive corporate world.

We believe that flexibility and adaptability to change are the only master keys to keep with the changing situations in industry and the aspirations of the youth. We fine-tune our students to drive themselves to explore their hidden potential through :

- Role play
- Presentations
- Mock interviews
- Group discussions
- Current affairs
- Extempore debates
- Quiz competitions, etc.

Industry-education interface is pivotal to ensure that our students are perfectly tuned to the needs of the corporate world that they stand at the threshold of. CMSR students are given ample field exposure and opportunities to interact with the industry even while studying :

- Summer internships
- Summer & Winter projects
- Industry interaction & corporate relations
- Future-focussed guidance and honing leadership skills.

CMSR offers unique student support to give them an edge over their competition when they step out of the B-School into the world of management. We take infinite care to match the dreams of each of our students to the requirements of the industry to create a win-win situation :

- Emphasis on both hard skills and soft skills
- Communication skills
- Personality development
- Business communication
- Aptitude tests
- Industry interface and field exposure
- Individual counselling
- Mentoring and hand-holding
- Students contribute research articles and papers to national and international journals
- Outbound training, etc.

Our students are taught self-discipline and are given innumerable opportunities to be open-minded and inquisitive in acquiring up-to-date knowledge.

CMSR has a strong networking and relationship with the industry thereby creating enviable opportunities for our students' placements into their dream jobs. We have consistently placed all our students in reputed companies in industry. Our CTC ranges from Rs. 7 to 3 lakhs per annum.

The Institute

CMSR is strategically located and near enough to the throbbing pulse of Pune's Industrial belt and IT parks, but far enough from it to be ensconced in Nature's bounty, nestled in the sylvan surroundings of the hills.

The Institute is built to be aesthetically pleasing. "Quality" is the word that echoes from every nook and cranny of our buildings:

- Inviting classrooms
- Pleasing interiors
- Ergonomically designed furniture
- Computer labs
- Wi-Fi connectivity
- Pristine hygienic and sanitized hostel rooms

We believe that physical fitness is a vital component for an alert mind. CMSR has:

- Sprawling play ground
- Basket ball and tennis courts
- Sports facilities
- Trekking outings
- Nutritious and well balanced meals hygienically prepared.

Co-curricular activities of our institute include:

- Cultural programmes
- Celebration of national festivals
- Manthan – the CMSR annual fest
- Cultural clubs etc.

We at CMSR teach our students to think, to ponder, to dream...we teach them to see and read what everybody else has seen and read, but think what nobody has thought...in this lies the uniqueness and speciality of our students !

RESEARCH AND DEVELOPMENT

The Institute believes that along with excellence in teaching-learning, research, innovation is the key for future development in general. Hence the Institute has plans to cultivate academic and research collaboration with National and International Universities, Government Organizations and Industries. Based on the credentials of the faculty and research facilities available in the college, Electronics and Telecommunication Engineering Department and Mechanical Engineering Department have been recognized as Research Centers, by University of Pune for Ph.D. research work. Few MOUs have been signed for research collaborations with Industry/Research organizations and few more are in the pipeline, which will further strengthen the research culture in the institute. At present, R & D projects to the tune of 5 crores have been sanctioned by external funding agencies, which are in progress.

The R & D cell comprises of faculty members from various Departments of the institute. This committee coordinates for up-scaling and enhancing the Research & Development activities in the institute. A senior faculty heads this cell in the capacity of Dean – R & D, with the Principal providing advisory support. Approximately, 3000 students perceive their careers in our institute, under the valuable guidance of our young, dynamic, and research oriented faculties in each department. Our faculty members are actively involved in Research & Development. Each department has identified Special Interest Groups (SIGs) to keep focused on the latest technology trends in respective branches. Along with PG students, UG students are also motivated to undertake research oriented projects. The faculty and students of the college are encouraged to publish research papers in reputed National and International Conferences and Journals. All the departments are publishing newsletters and e-magazines to promote, research culture among faculty as well as students.

Department wise broad areas of expertise

Sr. No.	Department	Specialized Domain/Area of Research
1	E & TC Engineering	VLSI and Embedded Systems, Communication and Signal Processing
2	Computer Engineering	High Performance Computing Research, Machine Intelligence Research, Data Mining
3	Information Technology	Advanced Wireless Networking and Systems, Advanced Software Research
4	Mechanical Engineering	Advanced Engineering Research, Thermal and Fluid Engineering Research
5	Core Engineering and Engineering Sciences	Fluid Mechanics, Atmospheric Research, Structures, Nanotechnology, Polymers

LIBRARY

ABOUT LIBRARY

MIT-COE library plays a vital role in acquiring, organizing & disseminating knowledge resources. It is well equipped with an outstanding infrastructure to meet this requirement. The library is automated and operates through SLIM 21 software and provides access through Online Public Access Catalogue (OPAC). Usage of Bar-code Technology for transaction of books is practiced.

It has an excellent collection of Books & Journals and other non-book reading material in the form of CD-ROMs and DVDs. The Digital Library has 10 separate computers connected with internet having Audio/Video facilities for surfing. Variety of professional E-journals is accessible to Faculty, students and Research Scholars.

More than 150 students can take advantage of Library Reading Hall facility which is fully air conditioned and has excellent ambience which encourages and enhances the involvement of students in studies.

LIBRARY SERVICES

The library facilitates the users with following services.

Home lending

- Books are issued to the students and staff during library hours through this facility.
- This facility helps for renewal of the books as per general library rules.
- Reservation Service
- The required book can be reserved for usage as soon as it is available in library.

Online Book Search Facility (OPAC)

- This facility is used to check availability of books in library.
- This facility is used to check availability of books from the desk of faculty as well as any PC in the lab.
- This service helps in managing library account like details of books issued, due date, fine etc. to any of the user on campus.

Reading Hall Books Service

- Ten books can be issued for same working day to one student for reading hall usage.
- Students are allowed to carry their study material in reading hall.

Journals and Reference Section

- This section facilitates to refer print journals and reference books.
- Photocopying of required contents is facilitated in library.

Photocopy Service

- Photocopy service is provided to the Faculty and students on payment basis to take photocopy of some of the contents of any of the reference material in the library.

Access to Other Libraries

MIT COE Central Library has tie ups with some of the libraries for access of knowledge base. These are:

- British Library, Pune; ARAI Library, Pune; MIT Library, Pune
- MITSOM, Pune

Information alert services

- This service keeps the users updated with the relevant news as well as the latest material in library.

New Arrival of Books

- This facilitates the users to know the new arrivals in the library for the benefit of users.

News items display

- Newspaper clippings related to MIT campus and other developments are displayed in the designated space in the library to keep students aware about the happenings in and around the campus.

Publication and conferences

- Library displays faculty publications, announcements about conferences, workshop, training programs, seminars etc. to help students updated with the events and participate in these events.

LIBRARY COLLECTION

1. Volumes : 31571
2. Titles : 514
3. National Journals : 132
4. E- Databases / Journals Packages : 03
   a) J-gate Engineering and Technolog
      www.jgateplus.com
   b) J-gate Management Sciences
      www.jgateplus.com
   c) DELNET
      www.delnet.nic.in

DIGITAL LIBRARY

User can access all E-Journals / articles, ASTM books and other knowledge databases through net connected systems which share the MIT COE internet Bandwidth of 10 mbps.

LIBRARY FEATURES

- On line Book Search System OPAC: (Online Public Access Catalogue)
- Account management from desk
- Air conditioned reading hall with excellent ambience
- Access to world renowned e-journals
- Tie ups with other libraries , Books Reservation Facility , E-Vigilance system
- Photocopy facility, News Alert system and 12 hours Usage.

Sr. No.	E-JOURNAL PACKAGES	URL / WEB
1	IEEE ASPP online	http://ieeexplore.ieee.org/
2	Springer Electrical, Electronics & Computer	http://link.springer.com/
3	Springer Mechanical Engineering	http://link.springer.com/
4	ASCE Complete Package	http://www.asce.org/
5	McGraw-Hill's Access Engineering	http://accessengineeringlibrary.com/
6	J-Gate Engineering and Technology	http://www.jgateplus.com/
7	Elsevier -Science Direct	http://www.sciencedirect.com/
8	ASTM Digital Library	http://www.astm.org/
9	J- Gate Management & Social Services	http://www.jgateplus.com/
10	EBSCO	http://www.ebsco.com/

MITCOE- GCELL- GRIEVANCES REDRESSAL MECHANISM

While imparting professional education, we take utmost care that students and other stake holders feel the comfort in the campus. We at MITCOE practice transparency, justice so that stake holders are not suffered. In fact campus is highly spiritual under the guidance of our honorable founder, Dr. V. D. Karad Sir. Campus observes high moral and ethical practices. May be this is the reason that we have not received any ragging or woman harassment complaints since inception of this college. Our GCell efficiently addresses for General grievances, Ragging and Women issues on the campus, as per guidelines of AICTE, University and DTE, Govt. of Maharashtra. GCell helps to keep the healthy working atmosphere among the staff, students & parents.

There are three sections in the cell.

1. Anti Ragging Cell, where students can lodge the complaint related to ragging and will be operated as per Anti Ragging rules laid by government.

2. General Grievances Cell, where everyone in the college domain can lodge the complaint and get their problems addressed regarding processes, facilities or quarrels among the students.

3. Woman Anti-Harassment Cell, where female can lodge the complaint and get their problem solved. Pursuant to the directives of the Supreme Court of India, this cell has been set up as per vishakha guidelines, to uphold the dignity of women at work place.

GENERAL GRIEVANCES

Prof. B. N. Jagdale
Member Secretary, GCell
balasaheb.jagdale@mitcoe.edu.in
Mobile: 9922688011

With reference to AICTE Circular, AICTE (Establishment of mechanism for grievance redressal) regulations 2012 dated 25th May 2012, grievances committee is constituted. Institute level committee operates at local level. Member secretary coordinates and maintains the summery of all transactions related to grievances in MITCOE. In addition Savitribai Phule Pune University has also its committee to look into the matters pertaining to general grievances. Committee details are available with university.

ANTI-RAGGING CELL

Prof. Surendra Barhatte
Nodal Officer
Department of Mechanical Engineering
surendra.barhatte@mitcoe.edu.in
Mobile : 9423871807

With reference to AICTE notification no. F.No. 37-3/legal/AICTE/2009, dated 01/07/2009, under section 6 (a) and 6 (c), this committee is constituted as Anti-Ragging Committee. Nodal officer of Anti-Ragging Committee coordinates and maintains the transactions related to Anti-Ragging activities. We also have anti-ragging squad which visits various places on the campus to curb the ragging matter on time. In fact our mechanism is so strong that no ragging is reported in MITCOE, Pune.

WOMAN ANTI-HARASSMENT CELL

Prof. Mrs. Mrunal Annadate
Cell - Convener
Department of Electronics & Telecomm. Engineering
mrunal.annadate@mitcoe.edu.in
Mobile : 9890319199

With reference to DTE, govt. of Maharashtra, letter number 2012/6075 dated 31st July 2012, AICTE letter number F.N.: 01-29 / CM / AICTE / 2012, Dated: 1st January 2013 and DTE letter DTE RO PUNE/VV/ admission /2014/2113 dated: 21/05/2014, related to woman anti-harassment at workplace, this committee is constituted and operational in MITCOE as per the vishaka court judgment guidelines. Events related to legal awareness, self-protection, and empowerment are regularly conducted in the campus.