

A single move  
can make a  
big difference.



# Impact College of Engineering and Applied Sciences

## Bachelor of Engineering(BE)

Computer Science and Engineering  
Electronics and Communication  
Electrical and Electronics  
Mechanical Engineering  
Civil Engineering

All it takes to be an Impactor - Dream, Vision, Passion, Commitment, Dedication, Focus, Creativity, Imagination, Innovation, Ambition, Positive attitude, Values, Thirst for knowledge, Belief, Hard work and a 'never say no' mind set



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# An engineer follows standards. An **Impactor** sets them.

At Impact, we encourage every student to be a free- thinker. Independent thinking, we believe is one of the principal qualities of a real engineer. Every engineering marvel, that's admired world-wide owes its origin to imagination and unrestrained creativity. That's simply why, apart from performance, one would find a strong persistent vision in every Impactor.





## Vision

The Institute for Manpower Planning And Career Training (IMPACT) was established to advance scholarship and practice in Engineering and the Science through a professional approach to education. It is charged with the mission of developing human capital in engineering streams with an interdisciplinary orientation. It offers a confluence of relevant knowledge areas bearing upon a problem of interest and strives to create generalist engineers, who are not only professionals fired by the passion to excel in their fields, but are also contributing members of society who deeply engage the world in the wider social context.

## Mission

The IMPACT is guided by the vision of shaping students as conscientious and capable engineers who can build a strong peaceful and dynamic world, while being at the forefront of technological initiatives with a basic concern for human and ecological welfare.

## Values

We transform lives by creating and sharing knowledge, while instilling values that prepare leaders for tomorrow's world. Our vision and values guide our teaching, research and management.


Excellence: We value excellence in teaching, research and management.

Creativity: We value innovation and creative thinking.

An entrepreneurial culture: We value effective decision-making and entrepreneurial implementation of ideas.

Ethical behavior and respect for others: We value ethical practices and diverse perspectives.

Community Engagement: We value a progressive relationship with all stakeholders and the community



An engineer  
simply designs.  
An **Impactor**  
envisions.

The difference between adapting an idea and creating one lies in the power of the imaginative mind and collaborative thinking. Impact provides every student with the right environment required for collaborative thought, urging the student to envision rather than go by a conventional model.



Dear Prospective Student,

As you enter the world of professional education, I am sure there is great expectation and apprehension about the future. You are confronted with many life-touching questions. The decisions you make today are so formative that they shape a substantial part of your whole life ahead. We at Impact College of Engineering and Applied Sciences recognize this and have prepared a program with great care and diligence to address your concerns. A well conceived engineering program with conscientious and capable faculty is offered to you. Our track record in engineering education spans more than thirty three years, beginning with the Impact Polytechnic, which was established in 1983. Today, we offer 5 disciplines in engineering at the bachelor's level and 9 disciplines in the diploma level and are engaged in creating human capital that addresses needs of the engineering fraternity for India and the world. Welcome to an exciting Bachelors program in Engineering!

Dr. K. P Mathulla,  
Director



## Director's Message

## Principal's Message



As I start writing this message certain positive events are taking place across the world. Our Sensex has hit a 2-year high, reaching to levels we had seen pre-recession. Gold and Inflation is bound southward, and the best news is we have not seen an increase in petrol prices in the last two months! All this bodes well for our economy. Businesses will have more money on hand to spend. They will invest on new initiatives, including technology.

New Investments would need additional manpower resources, more specifically Engineering and Management graduates. Looking at trends, the markets are about to throw up millions of opportunities. I believe, our Students of the Class of 2013 are well equipped to find jobs of choice in their areas of interest. I wish every single graduating student the very best.

With the 3rd batch leaving campus, there is strong need for us to do something different. You may find yourself in midst of new people when you join a company of your choice. At College, you could have leaned on your friend's shoulder to solve problems - but no longer. When you encounter an issue at your workplace you would be almost alone in resolving it. This is where you would need an informal group of IMPACTORS. We will soon be setting up an Alumni Association - this way you can be in touch with your ex-college mates. You can bounce ideas off your ever so trust worthy ex-class mates. We will ensure you would not be alone in resolving workplace issues! It is also important that the College gets feedback on the happenings in the Corporate world. The Alumni network should help us achieve this objective.

September will see a new batch of students joining us. One of our strengths is student diversity. Our students come from different parts of the Country- from Arunachal Pradesh to Gujarat, and from Himachal Pradesh to Kerala. We also have students from Afghanistan, Nigeria and Sudan amongst others. Studying at IMPACT will help you interact with other cultures. You will be exposed to how people from other cultures think and respond to problems. This is a unique to IMPACT, so valuable that no student can afford to miss. This I believe is an added advantage of studying at IMPACT.

Dr. Dinesh Shenoy  
PMI - USA Ph. D IIT (Kharagpur)



# An Engineer makes best use of inventions. An **impactor** constantly reinvents!

At Impact, we believe it is a constant process of reinventing oneself that has contributed many innovations to the world we live in. The curriculum at Impact stresses on this process of challenging the limits and thinking beyond what exists. Later on, this aspect becomes very much a part of the student's personality helping him excel in whatever domain he or she chooses to pursue.



Dear Prospective Student:

The B.E. Degree program in Karnataka is among the pre-eminent undergraduate engineering programs in the country. The great engineer-statesman, Sir M. Visveswaraiya led the erstwhile Mysore state in creating engineering marvels that are cherished even today. Since then, Karnataka has been innovating and working at the cutting edge of engineering education. The VTU (Visveswaraiya Technological University, our affiliating university) is obsessed about curriculum revision to keep up with industry trends and latest research.

Taking a closer look at engineering, we find that engineering systems today are interdisciplinary in their construction and working. For example, 'Mechatronics,' is a recent field that blends principles of mechanical engineering with electronics. Similarly, Architecture is a field that finds itself at the intersection of Art, Structural Engineering, Material Science, Ecology, Psychology and Economics to name a few areas. In this scenario, we need engineers who are comfortable at learning new things. David Kearns, the former chief of the Xerox Corporation makes the following statement with respect to narrow specialization in education: "The only education that prepares for change is a general education. In periods of change, narrow specialization condemns us to inflexibility – precisely what we do not need. We need the flexible intellectual tools to be problem solvers, to be able to continue learning over time." And that's what we particularly offer at IMPACT - our students are trained so that they are comfortable with a wide set of ideas, across disciplines; they are encouraged to explore, experiment and build engineering systems.

I welcome you to IMPACT's engineering program and pray that you enrich yourself over the next four years and become a budding leader in the profession of engineering.

Paul Mathulla, M.E, (PhD)  
Chairman, Governing Council, IMPACT



## Chairman's Message

## President's Message



Dear Prospective Student:

Thank you for considering the IMPACT College of Engineering & Applied Sciences for your undergraduate degree in Engineering. You will benefit from our long tradition of scholarship and practice in Engineering that has launched more than 20,000 students in lucrative careers all over the globe. The foundations for this engineering program were laid by its founder Dr. K P Mathulla, who in 1961 became Associate Fellow of the Royal Aeronautical Society, London. Today we have a very strong faculty who are stalwarts in their respective fields and are providing their knowledge and expertise to students like yourself. Add to that a highly competent support staff and well equipped labs and workshops, and you get one of the best run institutions in the city of Bangalore.

Apart from the engineering curriculum, we offer our students personality development as a regular curriculum in our activity list and our cultural and indoor and sport activities provide an excellent medium to interact and grow. The placement office and HR Department has a vibrant "Finishing School Program" (FSP) that makes the student ready to hit the ground running when they get placed.

I welcome you to IMPACT's Engineering program and look forward to working with you as you pursue a fulfilling degree in engineering here.

Sincerely,  
Alice Abraham ME, (Ph.D)  
President, IMPACT



## IMPACT GROUP OF INSTITUTIONS

Impact group of Institutions were founded on the principles of manpower and career training. Initially the group focused on creating skilled engineers who are equipped with an industry-oriented practical approach. Apart from turning out professionals, the group also believes in instilling core- values that bind them. Later the group expanded its horizons and forayed into specific domains like Polytechnic as well as other spheres like Applied Sciences, Education, Management etc where the need for professionally trained man- power was felt. Today the group has over five prestigious colleges, institutes and schools under its aegis; each unfailingly contributing to create a league of professionals.

All the institutes and schools of IGI boast of a safe and secure campus amidst rich greenery. With an infrastructure that is comparable only with the best in India, a faculty who have a distinguished presence in diverse industry-sectors; IGI has made possible an environment congenial to a collaborative learning experience.



# What every Impactor experiences...

Wi-Fi enabled campus

Well -stocked library

Full -fledged labs

Green Campus which is safe and secure

Separate hostel for Boys and Girls

Advanced Auditorium, Seminar Halls and PA systems

Faculty who are industry-experts

Flexible, student-centered approach

Strong placement tie -ups

Practical, industry-centric approach



## Green Campus

We present you an opportunity to learn and live in a serene lush green environment. ICEAS is nestled in the green, in a sylvan milieu which provides a tranquil environ to study. The Eco-efficient campus represents the vision and world view of ICEAS ascertaining the act that nobody knows future better than us.



# Campus Life at Impact- A life to remember

For all of us, it is the campus experience that we treasure throughout our life. Whatever happens during the short and sweet span, we end up picking up lessons

We present you an opportunity to learn and live in a serene lush green environment. ICEAS is nestled in the green, in a sylvan milieu which provides a tranquil environment to learn. The eco-efficient campus represents the vision and world view of ICEAS ascertaining the fact that nobody knows future better than us. Campus Life at any of the institutions of Impact group, provides a student the twin prospect of learning and living in the silicon city as well as develop his or his vision and outlook in a pedagogic as well as fun environment.

## Campus

The IMPACT campus is home to a multi-cultural, multi-ethnic, transnational learning community. IMPACT College of Engineering & Applied Sciences is located at Kodigehalli, Sahakaranagar, Bangalore, just 9 km from the Bangalore Cantonment Railway Station and 25 km from the Bangalore International Airport. It presents a verdant campus, rich in arboreal wealth and is comfortably set apart from the hustle and bustle of the city providing for congenial ambience for the serious scholar. The campus houses state-of-art laboratories and seminar halls, spacious classrooms, well-equipped laboratories, Library and Information Center, with facilities like cafeteria and hostel and much more. The Institute works towards continuously improving its facilities and infrastructure so that students can learn, explore, discover themselves. Apart from quality education, students are provided with a platform for self-expression. The IMPACT campus truly comes alive with its student population from different socio-economic backgrounds. The campus buzzes with activity with students working at laboratories, pursuing clarity of understanding via discussions inside and outside the classroom. The IMPACT campus calls you to an ambience of holistic learning.



# The IMPACT- Effect

## Some facts as they are

Higher Education, now a days is easily confused with providing super-luxury. At IMPACT group, we provide all the necessary amenities to live and learn, but never lose our focus on the core-i.e. education.

The strong value system at IMPACT aims at the over- all development of a personality which gives the student an edge above a professional degree.

A campus visit would give you a first-hand feel of the learning environment and faculty.

Education-first is our motto and you can find us practicing it in each and every aspect.

## Our approach

### Who is an Impactor?

One who loves challenges and enjoys daring them.

One who is always motivated and motivates others.

One who is an all rounder

One who performs in a team and also comes across as a remarkable individual

One whose EQ is just as good as his IQ



# Visvesvaraya Technological University

VTU is one of the biggest Technological Universities in India, having 186 colleges affiliated to it with under graduate course in 28 disciplines and PG Programme in 71 disciplines. The intake at UG level is about 67100 students and at the PG level it is about 12666 students. The University has 13 QIP centre in various affiliated colleges and 16 extension centres for offering PG programmes. There are over 2305 departments recognized as research centres. At present over 1800 students / faculty are registered for Ph.D degree and over 180 students are registered for their Msc.. (Engg). This year the University is awarding 120 Ph.D Degrees and 50 M.Sc (Engg) Degrees. The Faculty has published around 694 research publications in the year 2009-10. Sixteen from among the affiliated colleges were recognized to get assistance under the World Bank supported. TEQIP program in the I Phase. This year as a novel measure academic autonomy has been provided to 17 affiliated Colleges after due processes.

The University has very successfully achieved the tremendous task of bringing various colleges affiliated earlier to different Universities, with different syllabi, different procedures and different traditions under one umbrella. The University implemented common curriculum for UG in 1998 and revised syllabi again in 2002 for all the courses and uniform procedures were adopted. As a further step in standardization, the subjects & syllabi of related branches are being made common upto the fourth semester. The University has already revised the syllabus of MBA with effect from the academic year 2012-13 and has now revised the syllabi of all M.Tech courses & MCA. The University plans to bring in further flexibility in the curriculum, so that any changes or revisions may be introduced particularly with respect to electives, as and when technology changes or the need arises.

The University has MOU's with various leading organisations like IBM, INTEL Asia Electronics Inc., Ingersoll-Rand (India) Ltd., Bangalore and Microsoft. These MOU's will help in various ways to train the faculty, conduct teachers training workshops, student projects and enable the colleges affiliated to the University to get software at a highly subsidized rate. Already Intel has arranged many training programmes for Engineering College Teachers. 153 teachers were trained by Microsoft. These MOU's will further the Technological growth of the state. Many of the industries are

showing keen interest in participating in the curricular activities of the University and the University is negotiating with them for such participation.

VTU proposes to have worldwide electronic presence by establishing data network interconnecting the VTU campus at Machche, four regional offices and all the affiliated colleges of VTU in a secure private network and open up access to this network to the worldwide communities for collaborative learning using Internet technology.

In this direction, a Campus wide network at Machche with a fiber optic backbone, having about 1000 data access points interconnecting all the existing and proposed buildings is being set up. The campus network uses the state of art network tiered architecture with Edge and Core switches and scalable distributed network topology. This network will meet the computing demand of PG students in the campus, provide eLearning environment, access to digital library, support examination, administration work and more importantly have sufficient bandwidth for Videoconferencing from any network access point.

Further, the VCONET: VTU Colleges Network will enable sharing of faculty expertise among colleges, collaboration among peer groups, even out digital disparity among rural and urban engineering colleges, provide infrastructure for online examination system, portal to different digital libraries all over the world and support many more innovative applications on the net expected in future. The University intends to start Nodal Training Institute for training the staff of colleges similar to the staff training colleges functioning in other Universities.





# Bachelor of Engineering

Affiliated to Visvesvaraya Technological University  
Approved by AICTE

## Undergraduate Programs

### 4 Year Bachelor of Engineering (BE)

- Computer Science and Engineering
- Electronics and Communication
- Electrical and Electronics Engineering
- Mechanical Engineering
- Civil Engineering

## Eligibility

For admission to Engineering / Technology courses, a candidate has to obtain an aggregate minimum of 45% marks in Physics, Chemistry and Maths in Std XII or equivalent exam. 40% of marks in Q.E. in case of SC, ST, and other Backward Classes (Category-I, 2A, 2B, 3A and 3B) Eligibility criteria for admission to Engineering / Technology courses will be Chemistry / Bio-Technology /Biology along with Physics and Mathematics, as per AICTE. Electronics and Computer Science studied in the qualifying examination will not be considered along with Physics and Mathematics for eligibility for admission to Engineering courses from the year, 2011.



## Teaching Leverage

- Excellent and committed faculty
- Augmented coverage of topics
- Counseling and guidance for improving performance
- Placement - Comprehensive training and exposure to students with placement guarantees
- Continuous appraisal of performance to raise competency of students
- Guest lectures by seasoned experts from the corporate world and leading academic circles
- Student advisory services, club and associations
- International student body
- Alumni network



# Computer Science and Engineering

The Department of Computer Science and Engineering at IMPACT College of Engineering & Applied Sciences is recognized for its facilities and eminent faculty. The discipline of Computer Science and Engineering is concerned with the principles and technologies that make up entire range of computing systems. It studies internal units and various interconnections of the microprocessor and a range of subsystems that constitute the hardware. Students learn how to construct software systems and communicate through electronic networks and to interact with digital circuitry. Large quantities of data ordered according to the principles of relational data-based management are stored and organized. They are selectively retrieved using complex algorithms. Students appreciate the enormous computing power available to humanity in terms of millions of instructions every second. Various technology options available in terms of operating systems, networks, databases, graphics, artificial and machine intelligence are explored. The IMPACT College of Engineering has a wealth of computing resources that is tailored to meet the rigours of the curriculum. Some of the labs include Algorithms Lab, Web Programming Lab, Object Oriented Programming Lab, Electronic Circuits and Logic Design Lab.



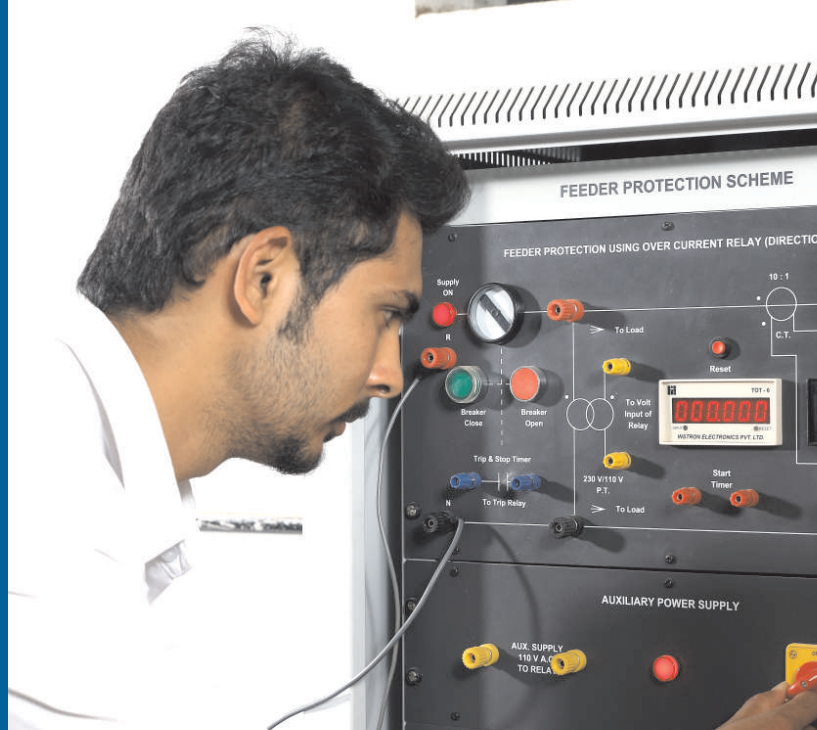


# Electronics and Communication



The IMPACT College of Engineering throws open the world of electronics for the student and he/she learns the art and science of carrying out communication at a distance using both wired and wireless technologies. Students learn the principles of encoding, compressing, encrypting, transmitting and decoding information on digital networks. They learn to make electronic measurements, study the characteristics of electronic networks and their maintenance under conditions of distortion and noise for greater stability and sharper control. Telephony, Satellite Communication and Biomedical Engineering are some of the specialized fields of enquiry. Basic electronic devices like thyristors, magnetic amplifiers, transducers, timers and robots are studied. Students also learn the properties of microprocessors in mundane devices like digital cameras, electronic weighing scales, treadmills to advanced devices like intercontinental ballistic missiles, radars and earth-quake detection equipment. Some of the important labs include Microcontroller Lab, Digital Signal Processing Lab, VLSI Lab, Power Electronics Lab etc.

# Electrical and Electronics



Electrical and Electronics Engineering is an exciting new discipline that blends the best of the traditional electrical engineering and modern electronics. Electrical power with its wide applicability is a pervasive amenity for modern humanity — we can hardly conceive of a village today that does not have the marvel of electricity. Students learn how to generate, store, transmit and measure electrical power using modern control systems and transformers. Students learn the application of power electronics in defence and industry, the operating principles of various intermediary devices like switch gears, connecting devices and relays. The construction, working principles and operational behaviour of devices like alternators, synchronous motors, induction motors and servo-motors are studied. Students are taught the principles of designing electronic instrumentation, tapping renewable energy resources and using 'cleaner power.' Some of the interesting areas include Illumination Engineering, Electrical Computer Aided Design, Solid State Control Drives, Reactive Power Management, Operational Amplifiers and the testing and commissioning of heavy electrical equipment. Some of the important labs include High Voltage Engineering Lab, Analog Electronics Lab, Circuit Simulation and Measurements Lab, DC Machines and Synchronous Machines Lab etc.



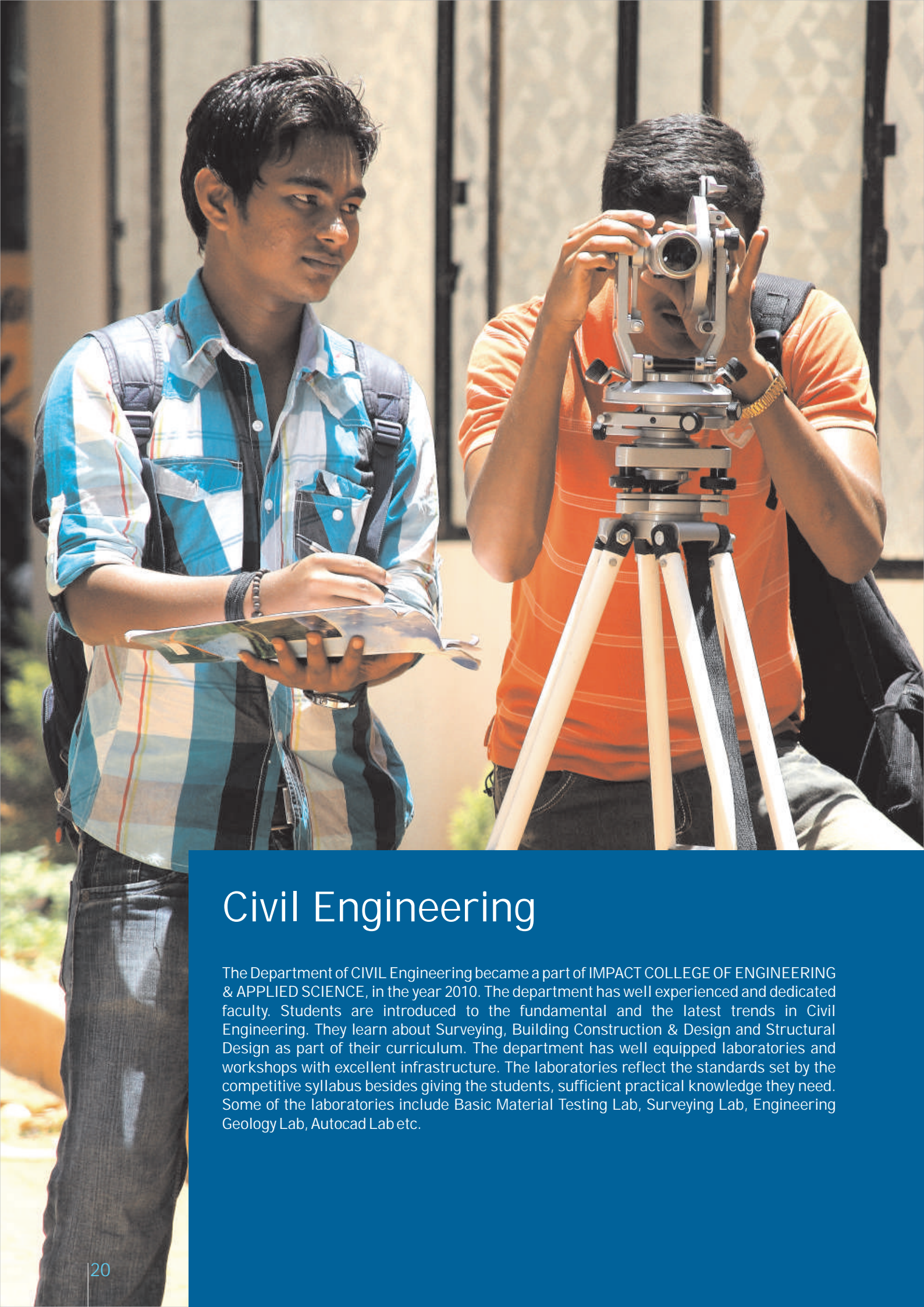


# Mechanical Engineering



Mechanical Engineering is an exciting discipline, which came into prominence at the turn of the industrial revolution with the steam engine and spinning mills of England. In fact, the word 'Engineering' comes from the word 'Engine,' which comes from Thermodynamics, a fundamental discipline in the field. We have come a long way today and there are promising new developments in fields like Mechatronics, Computer Optimized Engines and Flexible Manufacturing. Students are introduced to the fundamentals of material sciences, the strength and behaviour of various configurations of structures like trusses and beams. Students learn applied concepts of motion and dynamics of machine elements. They learn about the behavior of fluids, the laws governing their flow and the energy carried by the working fluid in an engine. The construction, operation and efficiency of various mechanical devices like lathes, milling machines and shapers are introduced. Students are taught about the behaviour of heat and its relation to work, which lies at the heart of the engine. The construction, operation and behaviour of internal combustion engines in various fuel and power categories are studied. Techniques like finite element method and computational fluid dynamics are explored. Some of the important labs include Machine Shop, Measurements Labs, Material Testing Lab, Hydraulic Lab, Heat and Mass Transfer Lab etc.





## Civil Engineering

The Department of CIVIL Engineering became a part of IMPACT COLLEGE OF ENGINEERING & APPLIED SCIENCE, in the year 2010. The department has well experienced and dedicated faculty. Students are introduced to the fundamental and the latest trends in Civil Engineering. They learn about Surveying, Building Construction & Design and Structural Design as part of their curriculum. The department has well equipped laboratories and workshops with excellent infrastructure. The laboratories reflect the standards set by the competitive syllabus besides giving the students, sufficient practical knowledge they need. Some of the laboratories include Basic Material Testing Lab, Surveying Lab, Engineering Geology Lab, Autocad Lab etc.



# Admission Procedure

Eligibility Criteria for Admission to 1st Semester B.E.

The eligible candidates (other than the students of P.U.C. Board, and C.B.S.E. exam passed in Karnataka / Diploma holders of Karnataka) seeking admission to the first year Engineering should obtain 'Eligibility Certificate, from the college concerned. Principals of Engineering colleges are authorized to issue Provisional eligibility certificates to the candidates after collecting the fees.

CET code 139

## Discipline and guidelines

The IMPACT College of Engineering & Applied sciences prides itself as a vibrant academic center with great emphasis on cultural and social diversity and friendship with nature. Students who leave their familiar home towns assimilate a lot from the atmosphere at IMPACT. IMPACT forms the various facets of the human personality through its social environment, which lays a great emphasis on discipline. Indiscipline or ragging are strictly prohibited and will invite penal action. Students' attendance is monitored; a system of continuous feedback to the parent keeps them informed of performance in the classroom.

Apart from discipline, certain rules relevant to community life are followed. Students have to wear the uniform prescribed by the college in the workshops and laboratories. Students must carry their Identity Cards (issued on admission) at all times and produce it on demand. The ID card will also be required to access the library.



# Syllabus

## I Semester Physics Group

1. Engineering Maths – I
2. Engineering Physics
3. Elements of Civil & Engg & Engineering Mechanics
4. Elements of Mech. Engg
5. Basic of Electrical Engg
6. Workshop Practice
7. Engg Physics Lab
8. Constitution of India & Professional Ethics
9. Language ( Kan )

## I Semester Chemistry Group

1. Engineering Maths – I
2. Engineering Chemistry
3. Computer Concepts & C Programming
4. Computer Aided Engineering Drawing
5. Basic Electronics
6. Computer Programming Lab
7. Engg. Chemistry Lab
8. Environmental Studies
9. Language ( Eng )

## II Semester Physics Group

1. Engineering Maths – II
2. Engineering Physics
3. Elements of Civil & Engg & Engineering Mechanics
4. Elements of Mechanical Engg
5. Basic of Electrical Engg
6. Workshop Practice
7. Engg Physics Lab
8. Constitution of India & Professional Ethics
9. Language ( Kan )

## II Semester Chemistry Group

1. Engineering Maths – I
2. Engineering Chemistry
3. Computer Concepts & C Programming
4. Computer Aided Engineering Drawing
5. Basic Electronics
6. Computer Programming Lab
7. Engg. Chemistry Lab
8. Environmental Studies
9. Language ( Eng )

## Civil Engineering

### III Semester

1. Engineering Mathematics – III
2. Building Materials and Construction Technology
3. Strength of Materials
4. Surveying – I
5. Fluid Mechanics
6. Applied Engineering Geology
7. Civil Engg, Material Testing Laboratory
8. Surveying Practices – I

### IV Semester

1. Engineering Mathematics – IV
2. Concrete Technology
3. Structural Analysis – I
4. Surveying – II
5. Hydraulics and Hydraulics Machines

6. Building Planning and Drawing
7. Surveying Practices – II Laboratory
8. Applied Engineering Geology Laboratory

### V Semester

1. Management of Entrepreneurship
2. Design of RCC Structural Elements
3. Structural Analysis – II
4. Geotechnical Engineering – I
5. Hydrology and Irrigation Engineering
6. Transport Engineering – I
7. Hydraulics and Hydraulics Machinery Lab
8. Computer Aided Design Lab

### VI Semester

1. Environmental Engineering – I
2. Design & Drawing of RCC Structures
3. Transportation Engineering – II
4. Geotechnical Engineering – II
5. Hydraulics Structures and Irrigation Design Drawing
6. Elective – I ( Group A )
7. Geotechnical Engineering Lab
8. Extensive Survey Viva Voice

### VII Semester

1. Environmental Engineering – II
2. Design of Steel Structures
3. Estimation and Valuation
4. Design of Prestressed Concrete Structures
5. Elective – II ( Group B )
6. Elective – III ( Group C )
7. Environmental Engineering Lab
8. Concrete and Highway Material Lab

### VIII Semester

1. Advanced Concrete Technology
2. Design and Drawing of Steel Structures
3. Elective – IV ( Group D )
4. Elective – V ( Group E )
5. Project Work
6. Seminar

## Computer Science and Engineering

### III Semester

1. Engineering Mathematics – III
2. Electronic Circuits
3. Logic Design
4. Discrete Mathematical Structures
5. Data Structures with C
6. Object Oriented Programming with C++
7. Data Structures with C / C++ Laboratory
8. Electronic Circuits & Logic Design Laboratory

### IV Semester

1. Engineering Mathematics – IV
2. Graph Theory and Combinatorics





3. Design and Analysis of Algorithms
4. Unix and Shell Programming
5. Micro Processors
6. Computer Organization
7. Design and Analysis of Algorithm Laboratory
8. Micro Processor Laboratory

#### V Semester

1. Software Engineering
2. System Software
3. Operating Systems
4. Database Management systems
5. Computer Network – I
6. Formal Languages and Automata Theory
7. Database Applications Laboratory
8. Systems software and Operating systems laboratory

#### VI Semester

1. Management and Entrepreneurship
2. Unix system programming
3. Compiler design
4. Computer network II
5. Computer graphics and Visualization
6. Elective I ( Group A )
7. Computer graphics and visualization Laboratory
8. Unix system programming and compiler design laboratory

#### VII Semester

1. Object Oriented Modeling and Design
2. Embedded Computing systems
3. Programming the web
4. Advanced Computer Architectures
5. Elective II ( Group B )
6. Elective III ( Group C )
7. Network Laboratory
8. Web programming laboratory

#### VIII Semester

1. Software Architectures
2. System Modeling and simulation
3. Elective IV ( Group D )
4. Elective V ( Group E )
5. Project work
6. Seminar

#### Electronics Communication Engineering

##### III Semester

1. Engineering Mathematics – III
2. Analog Electronic Circuits
3. Logic Design
4. Network Analysis
5. Electronic Instrumentation
6. Field theory
7. Analog Electronics Laboratory
8. Logic design Laboratory

#### IV Semester

1. Engineering Mathematics – IV
2. Micro controllers
3. Control systems
4. Signal & systems
5. Fundamentals of HDL
6. Linear ICS & Applications
7. Micro controllers Laboratory
8. HDL Laboratory

#### V Semester

1. Managements and Entrepreneurship
2. Digital signal processing
3. Analog communication
4. Microwaves and radar
5. Information theory and coding
6. Fundamental of CMOS VLSI
7. DSP Laboratory
8. Analog communication lab + LIC lab

#### VI Semester

1. Digital communication
2. Micro processors
3. Micro Electronics circuits
4. Antennas and propagation
5. Operating systems
6. Elective I ( Group A )
7. Advanced communication Laboratory
8. Micro processor laboratory

#### VII Semester

1. Computer communication networks
2. Optical fiber communication
3. Power electronics
4. Embedded system design
5. Elective II ( Group B )
6. Elective III ( Group C )
7. VLSI laboratory
8. Power electronics laboratory

#### VIII Semester

1. Wireless communication
2. Digital switching System
3. Elective IV ( Group D )
4. Elective V ( Group E )
5. Project work
6. Seminar

#### Electrical and Electronics Engineering

##### III semester

1. Engineering Mathematics III
2. Analog electronics circuits
3. Logic design
4. Network analysis
5. Electrical and electronic measurement and Instrumentation



# Syllabus

6. Electric power generation
7. Analog Electronics Lab
8. Logic design lab

## IV semester

1. Engineering Mathematics IV
2. Micro controllers
3. Control systems
4. Field theory
5. Power electronics
6. Transformers and induction machines
7. Micro controllers Lab
8. Power electronics lab

## V semester

1. Management and Entrepreneurship
2. Signal and systems
3. Transmission and distribution
4. D. C. machines and synchronous machines
5. Modern control theory
6. Linear IC's and applications
7. Measurements and circuit simulation laboratory
8. Transformers and induction machines laboratory

## VI semester

1. Power systems analog and stability
2. Switch gear and protection
3. Electrical machine design
4. Digital signal processing
5. Computer aided electrical drawing
6. Elective I ( group A )
7. D. C. machines and synchronous machines laboratory
8. Control systems laboratory

## VII semester

1. Computer techniques in power system analysis
2. Electrical power utilization
3. High voltage engineering
4. Industrial drives and applications
5. Elective II ( Group B )
6. Elective III ( Group C )
7. Relay and high voltage laboratory
8. Power systems simulation laboratory

## VIII semester

1. Electrical design, estimating and costing
2. Power system operation and control
3. Elective IV ( Group D )
4. Elective V ( Group E )
7. Project work
8. Seminar

## Mechanical Engineering

### III semester

1. Engineering Mathematics III
2. Material Sc. & metallurgy/mechanical measurements & metrology
3. Basic thermodynamics

4. Mechanics of materials
5. Manufacturing process I (fundamentals of foundries and welding)
6. Computer aided machine drawing / fluid mechanics
7. Metallography and material testing lab / mech. Measurement and metrology lab
8. Foundry and forging lab / machine shop

### IV semester

1. Engineering Mathematics IV
2. Material Sc. & metallurgy / mechanical measurements & metrology
3. Applied thermodynamics
4. Kinematics of machines
5. Manufacturing process II
6. Computer aided machine drawing / fluid mechanics
7. Metallography and material testing lab / mech. Measurement and metrology lab
8. Foundry and forging lab / machine shop

### V semester

1. Management and Entrepreneurship
2. Design of machine elements I
3. Energy engineering
4. Dynamics of machines
5. Manufacturing process III
6. Turbo machines
7. Fluid mechanics and machines lab
8. Energy conversion engg. Lab

### VI semester

1. Computer Integrated manufacturing
2. Design of machine elements II
3. Heat fo mass transfer
4. Finite element methods
5. Mechatronice and Micro processor
5. Elective 'A'
6. Heat of mass transfer lab
7. CAMA lab

### VII semester

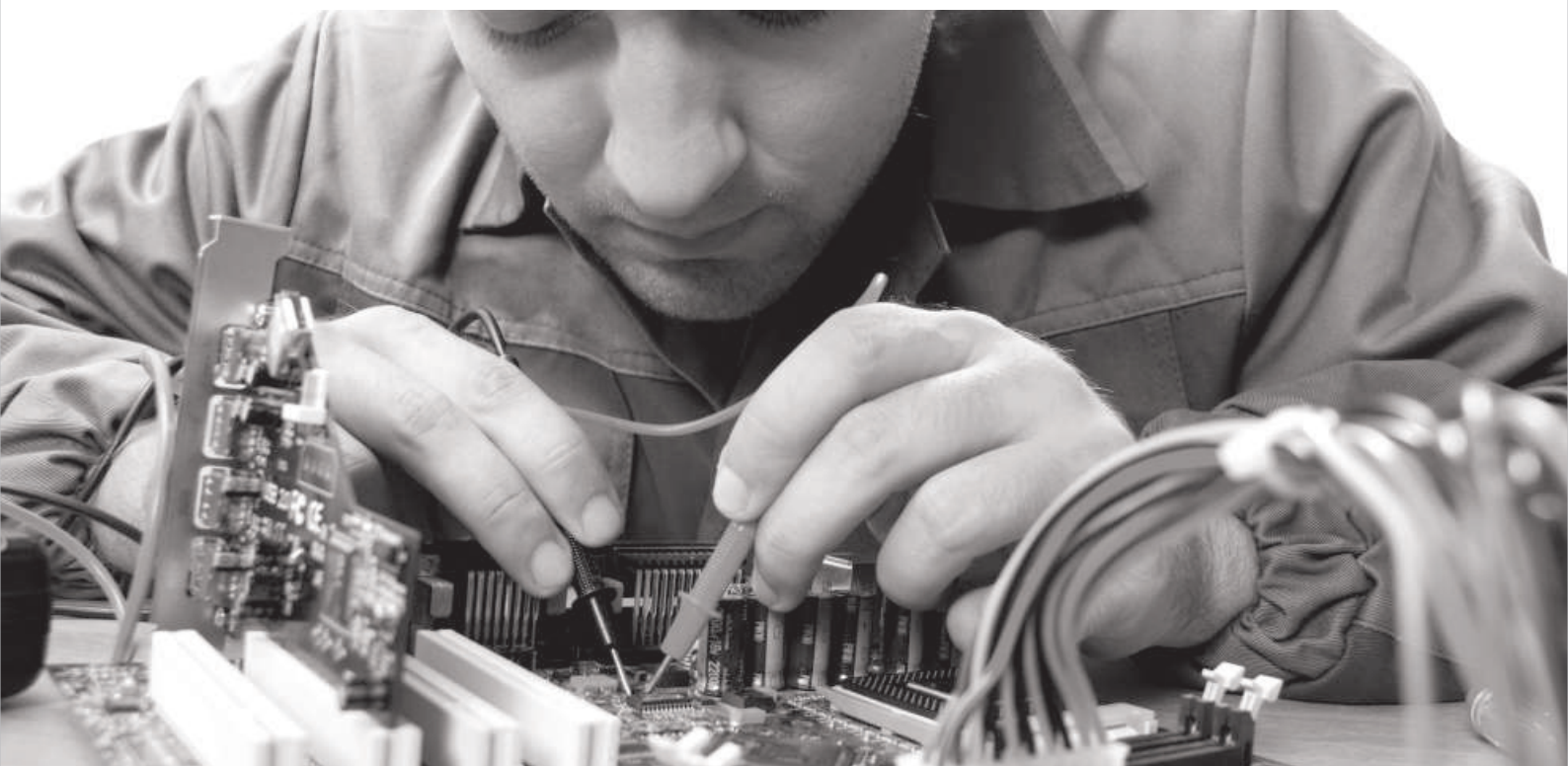
1. Economics
2. Mechanical vibrations
3. Hydraulics and pneumatics
4. Operations research
5. Elective B
6. Elective C
7. Design lab
8. CIM and automation lab

### VIII semester

1. Operations management
2. Control engineering
3. Elective D
6. Elective E
7. Project work
8. Seminar







# Training to think like an engineer

A practicing engineer when faced with a problem often works like a physician diagnosing a patient. The trained mind is able to dissect an engineering system and visualize constituting elements; the engineer has the ability to question the process, restructure the rudiments and optimize the system. The engineer can also use technology in creative ways to build new systems. But a life-long career in engineering begins with the ability to 'think like an engineer' - it comes from efficacious training and exposure to diverse problems. At the IMPACT College of Engineering, training is systematic, rigorous and intense, hard work is expected, even demanded. The quality expected by the industry, which absorbs our students, is built into them via a sound grasp of the fundamentals. The most successful students are those with well-developed analysis, problem-solving and logical-reasoning skills. IMPACT strives to build the 'engineers perspective' in each student and make him/her an attractive prospect for the industrial community. Apart from regular class room teaching, we encourage and use other teaching methods like case study, group discussion, guest lectures etc.

## CURRICULUM

Formal Classroom sessions are supplemented with frequent guest lecturers by experts from industrial and academic fields. To give a more professional touch to the training programme, frequent seminars, workshops and panel discussions, are arranged on various themes. The IMPACT is blessed with Seminar halls with modern audio visual systems and LCD projector etc. Factory visits are arranged to give students a flavour for industry and the environment of manufacturing and production.

## CONTINUOUS EVALUATION

The Institute practices continuous evaluation to monitor performance and provide feedback to students for frequent and regular improvement. The evaluation will be done on the basis of class participation, home assignments, written examinations, term papers and course projects.

## COUNSELING AND CAREER GUIDANCE

India and the world offer lot more opportunity today than just two decades ago. With liberalization and rationalization of credit policy, funds are easier to generate. The paucity is for entrepreneurial ideas. Students are encouraged to think big in terms of setting up manufacturing, service or production units and take advantage of the liberal business environment. Also, a large number of options are now available in terms of employment opportunities and career paths to choose from. Students are offered counsel on various specialized professions.

# Counselor's window

How to choose an engineering branch?

Mechanical, Electrical, Computer Science or something else? Deciding upon the right engineering stream is quite tricky for both students and their parents. Most of us go through the same dilemma after clearing different entrance exams. Career options for medical and arts students are relatively clear, however, a lot of thought goes into choosing the right branch in engineering. Most students go by the job prospects of the field while making this decision, interest and aptitude could get ignored in the process. Besides the most popular branches like Mechanical, Computer, Electrical and Civil, there are numerous other engineering branches like Chemical, Biotechnology, Aeronautical, Industrial, Instrumentation, Marine, etc. which have a good scope. While we may say that scope for a field keeps changing with time, as we see new trends coming up every few years. The reality is, every branch has good scope and opportunities if you perform well in it. Contrary to this, if you take up a branch just based on its job prospects and lack interest in it, you'll end up getting nowhere. So it is very important to go for a branch that is of your interest.

How do I choose the right institute?

Whether you choose college A over college B or branch X over branch Y should not be a random decision and instead be based on research on these colleges and the electives they offer under each course. Run through the college websites and the course material they offer under the branch you aspire for to make the right decision.

How does specialization help me?

Engineering provides opportunity to specialise. Choosing one from the various types of engineering disciplines is not an easy job. Digging deeper and knowing more about every branch can help you in making the right choice. It is the same as taking a straight way to your destination or taking roundabouts to get to the same place. Clearer the approach, better will be the results. For example, if you are interested in cars, you might as well want to take up Automobile Engineering instead of Mechanical. But the message is: be sure of what you want to pursue.





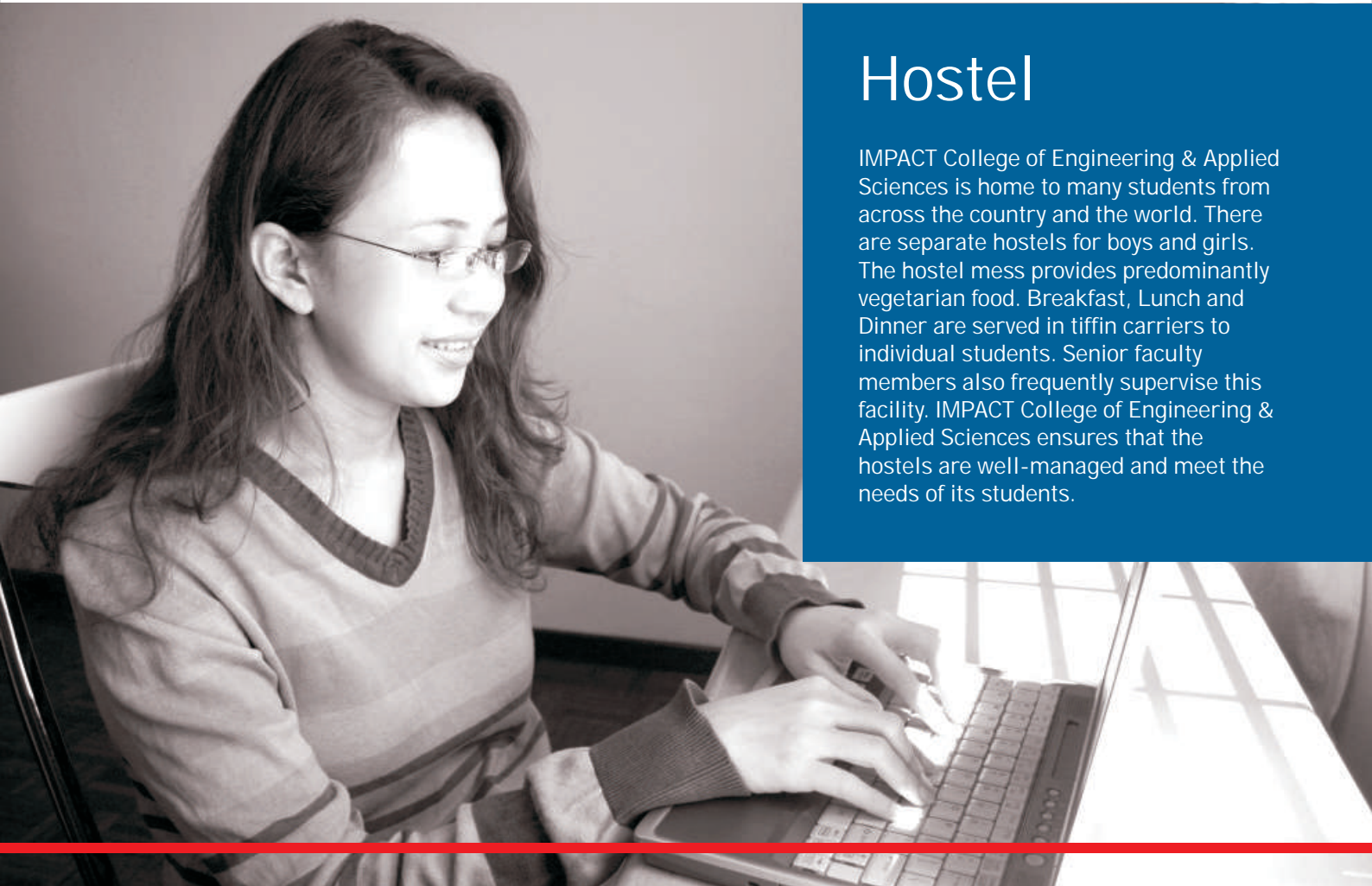
# Extra Curricular Activities

IMPACT College of Engineering & Applied Sciences promotes and nurtures the talents of its students. We emphasize growth as whole persons comprising the body and soul, heart and conscience, mind and will, rather than the intellect alone. Sports and Cultural activities provide an excellent medium to come together. Fine arts and oratory skills like debates and public speaking are developed through participation in short cultural programs organized on special occasions. The institute has facilities for both indoor and outdoor games including table tennis, badminton, throwball, volley ball, cricket etc. The ICEAS takes part in sports competitions at inter-college and university levels.





# Infrastructure



## Hostel

IMPACT College of Engineering & Applied Sciences is home to many students from across the country and the world. There are separate hostels for boys and girls. The hostel mess provides predominantly vegetarian food. Breakfast, Lunch and Dinner are served in tiffin carriers to individual students. Senior faculty members also frequently supervise this facility. IMPACT College of Engineering & Applied Sciences ensures that the hostels are well-managed and meet the needs of its students.

## Transport Facilities

The IMPACT College of Engineering Provides Transportation for the benefit of students from various parts of Bangalore City,



Multi Gym  
Indoor Sports  
Out Door Sports  
Jogging track  
Restaurant





"It's been a pleasure and a privilege to be a part of the ICEAS family. Completing my Bachelor of Engg in E&C from the year 2008-2012 has enlightened me completely. The management, staff and mentors have always been by strength and guide during my days in college."

Currently working at IBM Global Process Services as a Level 1 Band 3 Practitioner (CRM Engineer)

Thanks and Regards  
Jayanth C. Joseph



"College, the word alone is enough to open the doors into the inner most places of the heart and this has been so true in my life. Least did I know when I joined college for my first day that life is going to be changed to a very large extent, but I must say the administration and the faculty of IMPACT have been so caring, supportive and many more aspects which really cannot be described. This was one place where my life took a 360 degree turn they gave me so many opportunities, so much of freedom to pursue what is correct and most importantly discover myself. I am right now working for a company called Quinnox which I had got through campus recruitment. I am working as an A3, software trainee, developer for a project called Field glass (domain: Cloud Computing). I owe it to my college!"

Regards,  
Ranganayaki

"I am very proud and pleased that I had the opportunity to earn my engineering degree at IMPACT College. The time spent in IMPACT College to complete the degree of Engineering in Electrical & Electronics was an exceptionally fine educational experience. The competency and the professionalism of the professors were nothing less than outstanding. Being a Member of Core Committee Group, Event Organizer for College events & functions, and many such Co-Curricular activities have helped me gain Leadership Skills, Ethical Values, made me a better person & helped me earn the title for the Best Impactian (2008-2012). I am currently working in the Oil & Gas Industry, which I always wanted to do for its challenging environment. On a daily basis, I apply various aspects of theory and use some techniques that I learned during my time at IMPACT College to fulfill my Job responsibilities.

I wholeheartedly endorse IMPACT College and everything for which it stands."  
Abhimanyu (Batch of 2012)



# Placements at IMPACT Group

True to our vision, getting placed, we consider is just the step of a long walk to success. The skill sets we imbibe in our students make sure that they excel in their workspaces and find an easy way up the ladder. It is this quality that has made top corporate and industry majors flock to our campus, because they know it is not just a matter of one-time performance, but that of consistency.

Our placement cell equips the students to

Think laterally and develop solutions on their own

Be creative in whatever trade they choose

Develop sharp reasoning and analytical skills

Cherish an endearing and daring personality

Train consistently for their overall development

...last but not least..

Never quit their yearning for acquiring new things  
and trying them out





# Companies





## IMPACT GROUP OF INSTITUTIONS

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[www.impactedugroup.in](http://www.impactedugroup.in)

