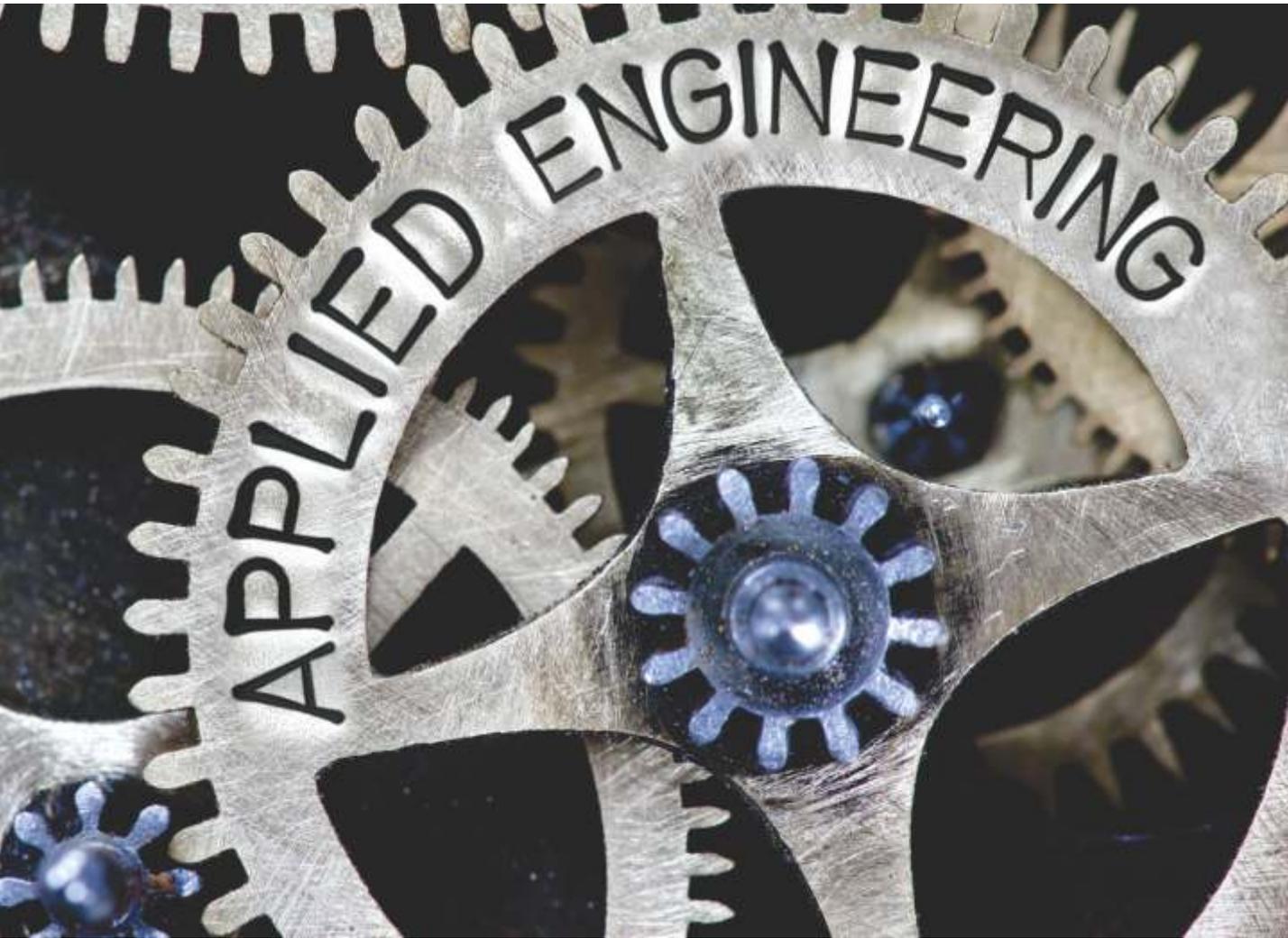




CHITKARA
COLLEGE OF
**APPLIED
ENGINEERING**



LATERAL ENTRY

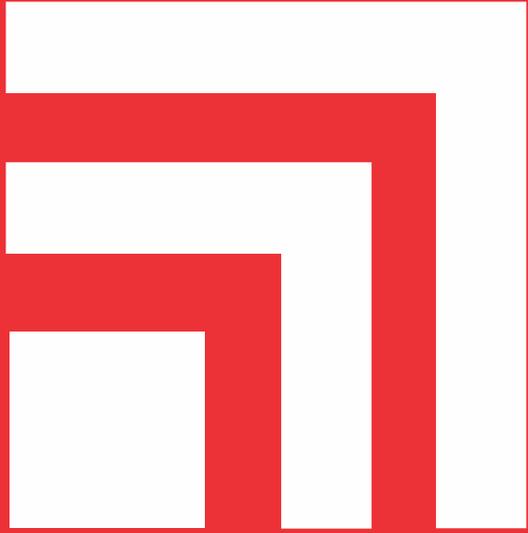
2nd Year B.Tech for
Diploma Students

CIVIL | ELECTRICAL | MECHANICAL



CHITKARA
UNIVERSITY





CHITKARA COLLEGE OF APPLIED ENGINEERING

Chitkara College of Applied Engineering has been established in Chitkara University to crystallise the 'Make in India' mission of Hon'ble Prime Minister Narendra Modi and to provide opportunities of skill development along with vertical mobility leading to gainful employment of diploma students joining Engineering Programs.

Chitkara College of Applied Engineering is a Chitkara Education initiative to provide students the opportunity to grow vertically & horizontally in their career paths with Civil, Electrical and Mechanical specialisations. All our programs come with mandatory industry internship and are offered with 100% placement assistance in our partner organisations, which gives a successful head start in chosen industry domain.

Our 3-Year program provides career-focused and community-responsive education developed in partnership with employers combining theoretical and applied learning, relevant work experience for students and the opportunity for them to participate in applied research and commercialisation projects.

Engineering programs for Diploma Holders at Chitkara College of Applied Engineering will offer not just a degree, but an education which leads to a rewarding career. Our curriculum is designed to suit the employer as we have made our syllabus, after extensive discussions with various industry experts and continue to involve them in our Academic Council.

On-the-job training is an integral part of our Engineering degree programs at Chitkara College of Applied Engineering and is meant to not only give the students a real-life exposure of the Industry, but also allow the employer to evaluate the students, as they work on the tasks given to them. The academic approach for diploma students undergoing Engineering degree is with maximum industry orientation and more stress on practical skills with hands-on experience.

For the academic year 2019, following programs are offered to diploma students entering 2nd year of Engineering through lateral entry:

- B.Tech in Civil Engineering
- B.Tech in Electrical Engineering
- B.Tech in Mechanical Engineering



SKILL BASED ENGINEERING EDUCATION AHEAD OF ITS TIME

At Chitkara College of Applied Engineering, you will get hands-on education within a dynamic and progressive learning environment.

PRACTICE-BASED LEARNING

One of the features of Applied Engineering education at Chitkara College of Applied Engineering is the strong emphasis on practice-based learning. Work attachments with industry partners are a part of the curriculum and can vary in duration from six weeks to six months or even longer for selected courses. These work attachments will enable you to gain valuable on-the-job experience and provide you with opportunities to work with industry experts. In addition to academic knowledge, there is also an emphasis of the acquisition of certain important life skills. These are the key skills like communication and presentation as well as problem-solving skills. They are intended to develop the students' confidence and critical faculties, which are necessary if they are to be effective participants in society. Students will also learn to develop original and creative thinking and to behave as responsible young adults. Classes incorporate activities, such as simulations and problem sets conducted in the format of mini lectures, video lectures, small group recitations, hands-on demos, design projects and quizzes to cement the understanding of different concepts in a subject.

FACILITIES

The facilities at Chitkara College of Applied Engineering are really amazing with state-of-the-art laboratories which have been developed in consultation with industry majors such as Honda, FCA, ESPA, Mitsubishi Electric, Fuji Electric and Schneider Electric which provide an environment to help students excel.

QUALIFIED FACULTIES

Our programs are staffed by qualified faculties with a number of years of working experience drawn from the education field as well as private sector. They bring with them a wealth of teaching and industry experience. They are professionals, who know what students need to know, and whose contact with industry makes sure the students get the best possible education. Their knowledge is constantly upgraded through industrial and workplace attachment or higher education courses.

STRONG INDUSTRY COLLABORATIONS

Chitkara College of Applied Engineering has strong industry collaborations with global industry leaders such as Schneider Electric, Siemens, Fuji Electric, IEEMA, Mitsubishi Electric, Honda, Ashok Leyland & many more. Also to sync our program curriculum with ever-changing industry needs, we have signed up with major skills councils such as Power Sector Skill Council, Indian Plumbing Skill Council, Automotive Skills Development Council and Capital Goods Skill Council.

PROGRAM CURRICULUM

- The curriculum has been designed in consultation with the industry to ensure that the students gain knowledge of skill as well as theory. Each course within the program is modular and credit based. Learning outcomes and skill competency levels have been clearly defined in each course curriculum. The program structure allows multi-entry & multi-exit facility to students.
- Students are also given a flavour of quality engineering, automatic product development, manufacturing processes, which have become key factors in successful execution of products in the industrial environment. Overall the course is structured in a way to give a well-rounded knowledge and practical training to the student on which they can build further and become a valuable contributor in the professional world.

STRONG INDUSTRY COLLABORATIONS @ CHITKARA COLLEGE OF APPLIED ENGINEERING

For our Applied Engineering programs, we realize that our technical graduates are the foundation of the new knowledge based Indian economy. We also know that an active industry-academic interface is required to achieve the goal of producing "Industry Ready" students who are well-rounded and quick learners. These industry collaborations will help our students to acquire skills and capabilities, prepare them to get appropriate employment and ensure their competitiveness in national and international work environment.

IEEMA (INDIAN ELECTRICAL AND ELECTRONICS MANUFACTURING ASSOCIATION)



IEEMA was the first association established right next after the day of Indian Independence. It is the largest Industry association encompassing 800 plus manufacturers covering the entire gamut of electrical, industrial electronics and allied equipment company. Chitkara University being the frontrunner in proactive industry interface was felicitated and accepted to become the 1st Academic partner of IEEMA to take up academic reforms and to implement academic policies concerning Electrical Engineering education.

INDIAN PLUMBING ASSOCIATION



Indian Plumbing Association is apex body of plumbing professionals in India. Established in 1993 with objective to promote development of plumbing and building services industry, the association helped in creating design engineers and installation engineers for modern plumbing system. Chitkara University became 1st academic university partner to seek active support of IPA in establishing first ever academic program in Plumbing & Public Health Engineering in India.

INDIAN ELECTRONICS & SEMICONDUCTOR ASSOCIATION (IESA)



Chitkara University is strategic academic partner to IESA in academic collaboration panel, thus enabling modern curriculum for engineering education. In association with IESA, Chitkara University promotes technical startups, active student projects and industry driven research led innovations.

THE INDIAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS



The Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE), was founded in 1981 at New Delhi, by a group of eminent HVAC&R professionals. ISHRAE today has more than 12,000 HVAC&R professionals as members and additionally there are 7,500 Student-members. ISHRAE operates from 41 Chapters and Sub Chapters spread all over India, with HQ in Delhi. ISHRAE is strategic industry body represented the whole HVAC industry in enabling first ever program of Heating Ventilation & Air Conditioning at graduate level. As part of the collaboration with Chitkara University, ISHRAE is involved in setting up assisting in development of model curriculum, faculty training, enabling setting up of largest HVAC lab and recognising graduating student with career support.



POWER SECTOR SKILL COUNCIL



PSSC has been established with the objective of facilitating the skill development activities including capacity building for training delivery to meet the needs of the Power Industry that consists of conventional sector (Generation, Transmission and Distribution), Renewable Energy and Power equipment Manufacturing sector. Association of Chitkara University with PSSC brings new dimensions to the skill gaps identification, curriculum development, strategic academic alignment and talent generation. Together we offer, new age programs in electrical energy, management and energy audit domains.

AUTOMOTIVE SKILLS DEVELOPMENT COUNCIL



ASDC is the 1st Sector Skill Council that was established by Ministry of Finance in India. It is formed in association with FADA, SIAM & ACMA bringing the whole ecosystem of Auto Manufacturing, Servicing and Component Manufacturing verticals. Chitkara University is partnering with ASDC to bring a new dimension to skill gap identification, curriculum development, talent generation, candidate assessment and certification through NSQF Framework for all qualifying candidates.

INDIAN PLUMBING SKILL COUNCIL



IPSC is a company incorporated under Section 25 of the Indian Companies Act 1956. Chitkara University and IPSC participate in Affiliation, Accreditation, Examination and Certification of all qualifying candidates in Plumbing and Public Health Engineering domain programs. In addition, IPSC works as a principle support body in enabling talent development for international skill competitions, which includes Worldskills and Euro Skills. IPSC supports Chitkara University's endeavour in creating full-fledged academic program in Plumbing and Public Health Engineering with technical cum knowledge support and periodical assessment of Plumbing Lab, which also includes certification of trainers and technicians.



CAPITAL GOODS SKILL COUNCIL



Capital Goods Skill Council works with Chitkara University in redefining Mechanical Engineering program for the need of ever-growing manufacturing industry in India. Under this joint initiative, profiles like Manufacturing Engineer, Quality Engineer and Installation Engineer are being redefined with the support of spruced up curriculum in addition to adequate industry exposure.

ESSEL BATH FITTING



ESSEL is a private limited company producing Faucets, Bath Fittings, Fixtures and accessories; established as per guidelines framed by the Indian Companies Act, 1956, and was established in year 1998. This association was aimed at:

1. To understand the shortage and also foresee demand of skilled, knowledgeable and certified manpower in the Plumbing, Sanitation, Public Health Engineering and its allied sector.
2. Under this joint initiative, EsSEL will help in creating Design Faucet Engineers and Installation Engineers for modern plumbing system.
3. To partner in helping create Asia's largest iconic plumbing lab.

JAIN IRRIGATION SYSTEMS LIMITED.



Jain Irrigation is world's largest manufacturer of drip irrigation products. It has manufacturing plants worldwide. Jain specialises in large size pipes for water supply, waste water handling and irrigation water supply. Jain Irrigation is partnered with Chitkara University in creating Asia's largest iconic plumbing lab. They support us with curriculum of maiden plumbing engineering program on water supply domains. The support also extends in faculty training and student career support with appropriate recognition.

MITSUBISHI ELECTRIC

Mitsubishi Electric is a world leader in air conditioning systems for residential, commercial and industrial use. Challenged to create air conditioning systems that provide exemplary performance in the wide-ranging climatic conditions found throughout Japan, our engineers develop amazingly sophisticated yet durable units and systems capable of constant use under virtually any natural climatic condition on earth.



Mitsubishi Electric India as principle collaboration industry partner takes responsibility of bringing industry blended curriculum, subject contents, pedagogy advocacy, faculty training, establishment of state-of-the-art lab infrastructure, which makes learning truly world class. In addition, Mitsubishi Electric along with Chitkara University shall also facilitate intensive internship, assessment of students and certification, which is globally recognised. What more, subject matter experts (SMEs) from Mitsubishi Electric will be available in Chitkara University to oversee delivery of the program for quality, consistency and to bring special emphasise in hands on industry driven practicals.

ASHIRVAD PIPES



Ashirvad stands as largest Pipe manufacturer in India with annual turn over crossing INR 130 Millions. Ashirvad being market leader felt acute demand of qualified plumbing supervisors and plumbing engineers in India to execute leading projects. Ashirvad partnered with Chitkara University in creating Asia's largest iconic plumbing lab and works closely to establish model curriculum and help in recognising graduating student.

WITTUR



WITTUR is in the international elevator industry and defines itself as competence centre for the production and development of components and system packages for elevators and deploys its components on a worldwide basis. Chitkara University and WITTUR jointly develop new customised courses, job roles, occupation standards and qualification competency- matrix for WITTUR suiting the market dynamics and ensuring availability of right talent pool for Indian growing elevator & escalator industry.

HONDA MOTORCYCLE & SCOOTERS

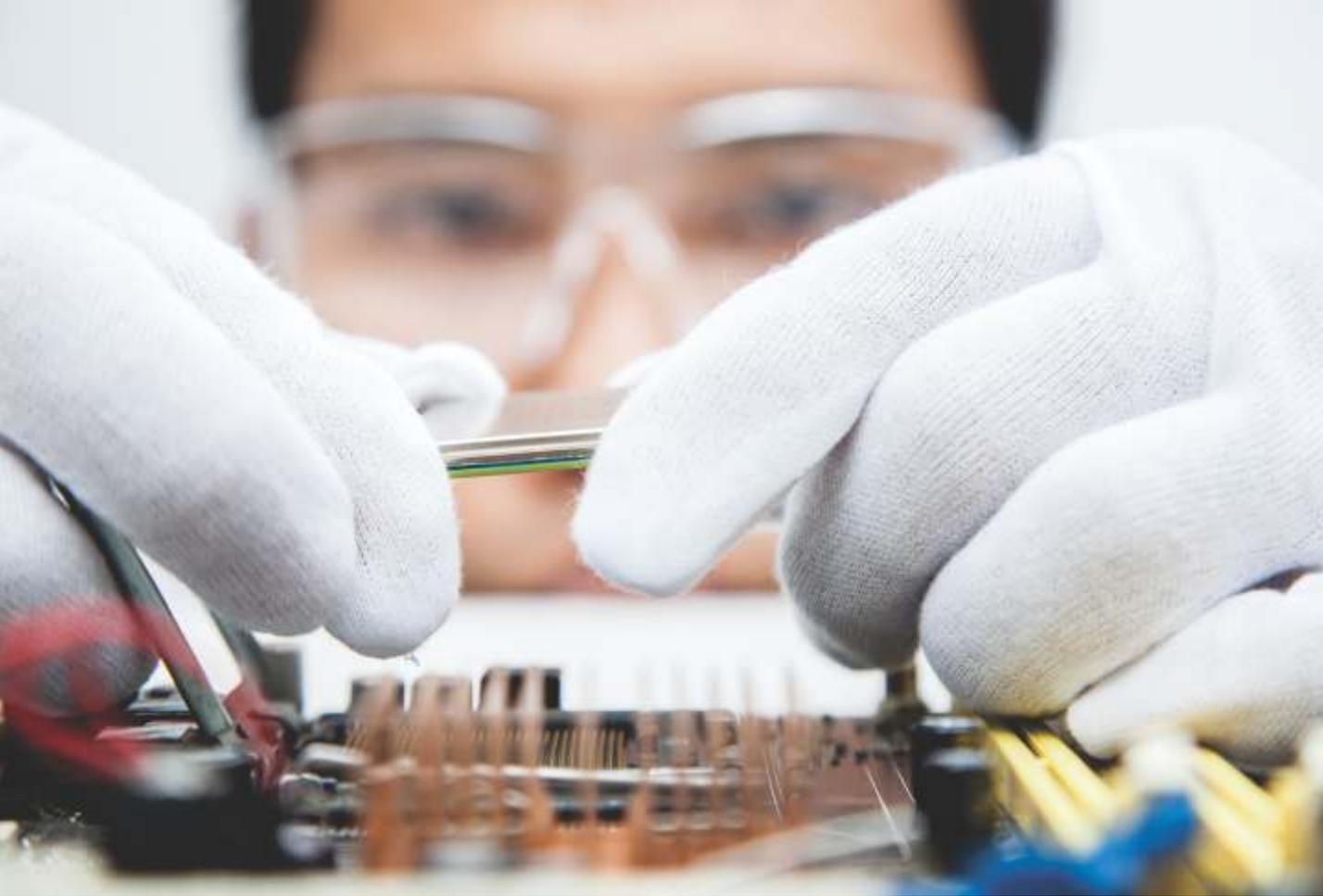


HONDA Motorcycle & Scooters in India is 2nd largest 2-wheeler manufacturer by market size. Honda visualizes the growing market of two wheelers in India and demand of talent pool, which is needed in providing quality service and customer experience. It is a reputed industry partner for Chitkara University in setting up model curriculum for two wheelers, faculty training and assessment of candidates. This initiative is actively supported by state-of-the-art two wheeler technology labs, which were established and fully donated by Honda.

FIAT CHRYSLER AUTOMOBILES



FIAT CHRYSLER AUTOMOBILES in association with Chitkara University has established the largest footprint for automobile training of passenger cars in India. This facility caters to training of FCA's field force and academic students of Chitkara University. Besides this FCA is also partner with Chitkara in enabling talent development for World Skills and regional cum national competitions pertaining to automotive domains.



SCHNEIDER ELECTRIC



Schneider Electric is world's largest French multinational corporation that specialises in energy management and automation solutions, spanning hardware, software, and services. Schneider Electric is strategic electrical partner with Chitkara University and both jointly offer unique electrical program with specialisation in Low Voltage domain. Under this initiative, Schneider Electric has trained & certified many faculties and also assisted in development of Industry led curriculum with much emphasis on hands on learning.

ASHOK LEYLAND



Ashok Leyland traces a successful history in India having travelled multiple decades spanning operations across Pan India. It is the 2nd largest commercial vehicle manufacturer in India. Ashok Leyland has partnered with Chitkara University in setting up commercial vehicle 4 wheeler training programs and effectively incorporated it as a part of the curriculum in Mechanical Engineering program. Besides, it provides training faculty and facilitates internship support, assessment of students & certification, which is globally recognised.

FUJI ELECTRIC



Fuji Electric, the driving force behind eco changes in a nation emerging as a major economy in the global market. Fuji Electric is focused on turning environmental responsibility into a profitable way of business while making profound social contributions to the nation. Fuji Electric along with Chitkara University shall facilitate intensive internship, assessment of students and certification of competency, which is globally recognised. What more, subject matter experts (SMEs) from Fuji Electric will be available in Chitkara University from time to time to oversee delivery of the program for quality, consistency and to bring special emphasise in hands-on industry driven practicals.



ESPA, SPAIN



ESPA India is a subsidiary of ESPA Pumps Spain is in the business of importing and Supplying all pumps, pump accessories, booster sets for domestic, industrial, HVAC and commercial including swimming pool applications in India. ESPA and Chitkara University work jointly in developing job roles, occupation standards and qualification packs competency-matrix for the plumbing industry and develop courses as per expectations of the industry. Partner in creating Asia's largest iconic plumbing lab, ESPA help in recognising graduating students with career support and also facilitate industry intensive internship.

SIEMENS



SIEMENS is a subsidiary of Siemens AG, Germany, is a well-established business conglomerate in India. With a focus on electrification, automation and digitalization, Siemens in India stands for engineering excellence, innovation, and reliability. As one of the world's biggest producers of energy-efficient, resource-saving technologies, Siemens is a pioneer in infrastructure and energy solutions (Building Technologies & Building Automation), as well as automation and software for Industry. Siemens and Chitkara University jointly work in developing roles, occupation cum working standards and qualifications, competency-matrix for the Building Technologies & Automation industry and develop the courses meeting the end employer expectations. Technical Training and Certification of teachers and students, Course standardisation, jointly prepare courses and delivery methodology. SIEMENS will provide strategic support including faculty/candidate training, certification, and support in getting opportunities for internship for all qualifying students.



ELECTRICAL ENGINEERING

B.Tech in Electrical Engineering (Lateral Entry)

Program Objectives

Electrical Engineering is one of the largest and most diverse technological and engineering disciplines in today's world. Electrical Engineering is the study and application of electricity, electronics and electromagnetism for the development and maintenance of electrical and electronics equipments such as electric motors, navigation systems, medical devices, broadcast and communication systems, power generation systems, electrical distribution systems, electric grids etc., while keeping in mind the safety, quality, economic feasibility and sustainability of these products and systems.

India is growing - our economy, our population, our industry and our demand for energy are growing in multifold day by day. Electrical engineering technologists are specialists in the generation, transmission, distribution and utilization of energy and further expanding the career horizon into electrical & industrial automation. It's a powerful career choice that demands good problem-solving skills combined with excellent domain knowledge with an eye for detail. As the world prepares for the challenges posed by climate change and ever increasing demand of quality products at faster pace, if you want to make a difference in combatting this pressing global problem, as innovators of environment-friendly products and services to improve quality of life, this industry integrated Degree in Electrical Engineering with intensive specialisation will put you on the right track.

Program Overview

Some of the key components of this specialisation will be:

- Apply knowledge and technical expertise in building, analyzing, testing, operating and maintaining electrical, instrumentation, control systems and associated green technologies, including relevant industry standards and code of practices
- To do maintenance, repair and production of electrical automation equipment and its systems
- Procure, inspect and test electrical and electronic engineering materials
- To select, operate, maintain, test and repair/replace electrical & electro-mechanical automation machinery used in various industrial appliances
- Enable to do industrial installation including automation components, programming cum re-programming of logic controllers cum drives, laying cables, earthing, installing motors, drives with their accessories, wiring & testing of control circuits
- Preparing estimates of different kinds of jobs in domestic, industrial automation in transmission and distribution systems to install, erect and commission the power & automation equipments

Cutting Edge Laboratories & Facilities

We have world class labs including:

- Power Systems Research Lab
- Protection and Switchgear Lab
- Control Systems Lab
- Digital Simulation Lab
- Power Electronics and Drives Lab
- Analog and Digital Circuits Hardware lab
- Virtual Instrumentation Lab
- Process Control Lab
- Solar Energy Lab
- EDC and Device Research Lab
- Measurement & Instrumentation Lab
- Electrical Machines Lab
- NxP Semiconductor Lab
- Q-Max Technology Lab
- Schneider Electric - Centre of Excellence
- Industrial Automation Lab - Fuji Electric
- Building Automation Lab-Siemens

Career Opportunities

Electrical Engineers are much in demand in India. In the recent years, from house to companies every where there is a necessity of electricity to function, offering numerous opportunities to electrical engineers. These engineers can work in atomic power plants, hydel or thermal power plants. Job opportunities are ample in both private and public sector like railways, civil aviation, electricity board and utility companies, electrical design and consultancy firms and all types of manufacturing industries.

Companies like ABB, Bajaj International Private Ltd, Crompton Greaves Limited, Siemens Ltd, Reliance Power Ltd, Oil and Natural Gas Corporation (ONGC), Bharat Heavy Electricals Limited (BHEL), Steel Authority of India Limited (SAIL), Coal India Limited (CIL), Power Grid Corporation of India Limited (PGCIL), Centre for Electronics Design and Technology and Wipro Lighting are the biggest employers hiring Electrical Engineers.

Career opportunities abound in wide spectrum of industries as executives, specialists, technologists, engineers or managers in:

- Factory automation
- Power Engineering
- Energy Management
- Facility Management
- Operations Management
- Sustainable Design & Solutions
- Entrepreneurship & Own venture

Corporate Recruitment Partners

Given below are some of the blue chip companies, which hire our Electrical Engineering graduates.





CIVIL ENGINEERING

B.Tech in Civil Engineering (Lateral Entry)

Introduction to Civil Engineering

Civil Engineers design and build things that are part of our daily lives. They build our homes, schools, the places where we work, our roads, bridges, railways, and airports. They also build the things we don't see that we use every day like the water system we use when we wash our hands or take a shower and the electricity system we use to power our computers and charge our mobile phones. They get rid of the things we throw away.

What do Civil Engineers do?

Civil Engineers work in many different areas. Most importantly, Civil Engineers work with many other professionals in teams to make our world a better place.

- Earthquake Engineers make sure structures can withstand earthquakes.
- Environmental Engineers protect the environment and protect us from extreme weather.
- Geotechnical Engineers focus on the ground, which affects everything built on it (buildings), with it (dams and levees) and in it (tunnels and pipelines).
- Project Management Engineers make sure entire projects are delivered on time and on budget.

Where do Civil Engineers work?

If you want to be on a construction site, building, testing and monitoring developments then you can be. If you prefer to be in the office designing and problem solving then you can do that too. With engineering, you can follow your interests both in what you do and where you do it. If you are interested in sport you can work as an engineer to create amazing sporting venues.

If you want to make a difference in people's everyday lives you can work in a team to rebuild a community following a natural disaster – or even prevent the disaster from happening in the first place. If design is your thing you can be part of the engineering team that overcomes technical challenges of building truly fabulous places. Engineers work in lots of different places, like offices and laboratories, but also on sites that can be in exciting and far-flung places, or places others never get to go, such as underground and at sea. These opportunities make Civil Engineering one of the most exciting careers around!

Program Contents and Academic Framework

Students take a common core of Civil Engineering courses, and they can specialize in the areas of geotechnical, or structural engineering etc. Our curriculum lays intensive focus on:

Strength of Materials	Construction Technology	Soil Mechanics
Concrete Technologies	Structural Analysis	Building Drawing
Reinforced Concrete Structures	Hydraulic Structures and Machinery	Environmental Engineering
Construction Management		

Cutting Edge Laboratories & Facilities

Students have access to every facility in the form of well-equipped labs. These are:

- Structure and Construction Engineering Lab
- Computer Lab
- Soil Mechanics Lab
- Hydraulics and Fluid Machinery Lab
- Strength of Materials Lab
- Survey Lab
- Environmental Engineering Lab
- Remote Sensing and GIS Lab

Career Opportunities

Engineering companies all over the world are in need of Civil Engineers to develop new technologies, build better buildings, create better cities, get people to where they want to go in the best way possible, and counter the devastating effects of climate change. In other words, to improve the future of the planet. This means that the Civil Engineers of tomorrow (you!) are in demand. With a good education and a positive attitude you will be able to secure an exciting, well-paying job that offers you opportunities to work at the cutting-edge of your field, all over the globe.

SPECIALISATIONS IN CIVIL ENGINEERING

- Public Health Engineering
- Construction Engineering Management



SPECIALISATION IN PUBLIC HEALTH ENGINEERING

Public Health Engineering is the contemporary term for sanitary engineering, though sanitary engineering traditionally had not included much of the hazardous waste management and environmental remediation work covered by environmental engineering. Public Health Engineering technologists will be there - whether it is to ensure that a water level is monitored and regulated, rivers are engineered to work with our expanding populations, water and wastewater treatment systems are designed to meet growing demands, or to assess and minimize the water usage in domestic & industry applications.

As the world prepares for the challenges posed by faster depletion of precious natural resource (water), if you want to make a difference in combatting this pressing global problem, as innovators of water-friendly products and services to improve quality of life, this water resources integrated Degree in Civil Engineering will put you on the right track.

Program Contents

Some of the key components of this specialisation will be:

- Apply knowledge and technical expertise in building, analyzing, testing, operating and maintaining civil, green water (fresh), grey water (waste) and associated green technologies, including relevant industry standards and code of practices
- To do maintenance, repair and production of plumbing, sanitation & water resources equipment and its systems
- Conceptualization, visualization and design of MEP services pertaining to Plumbing & Sanitation that includes water supply, water treatment, waste water disposal and waste water recycling and solid waste disposal.
- Procure, inspect and test civil and plumbing engineering materials
- To do fault diagnosis, repairing domestic/industrial fresh water lines (Cold & Hot), making joints and carrying out pipe laying & plumbing work

Career Opportunities

- Building Engineering & Services
- Water Resources Engineering
- Renewable Water Resources Management
- Facility Management
- Operations Management
- Sustainable Design & Solutions
- Clean Energy
- Research & Development
- Entrepreneurship & own venture

Corporate Recruitment Partners

Given below are some of the blue chip companies for Civil Engineers specialising in Public Health Engineering





SPECIALISATION IN CONSTRUCTION ENGINEERING MANAGEMENT

The specialisation in Construction Engineering and Management provide students the knowledge of civil engineering with focus on modern construction materials, techniques and effective construction management practices. Through this program, Civil Engineers become capable of constructing special structures and can become powerful project managers who can complete projects within a given schedule and budget.

The fundamental principles are applied to study the behaviour of solids, fluids and soils. Transportation Engineering and Environmental Engineering are also introduced. The focus is on analysis and design of Steel & Concrete structures and Foundation Engineering. Students can opt for special electives such as:

- Modern Structural Materials and Systems Design
- Shoring, Scaffolding and Form Work
- Construction Personnel Management
- Project Safety Management
- Quality Control & Assurance in Construction
- Quantitative Techniques in Management
- Contract Laws and Regulations

In the final year, students have to undertake a design project and a main project in the areas of Construction Engineering and Management along with industry led intership.

Students are groomed under high standards of program delivery and rigorous curriculum and would naturally become capable of matching the employer's expectations. Civil Engineers specialising in Construction Engineering and management can find jobs in Government departments, private and public sector industries such as Planning Engineer, Site Engineer, Quality Control Engineer and Project Manager. Opportunities are also available in research and teaching institutions. Civil Engineers can manage the construction projects independently and can become entrepreneurs. There is always a high demand for experienced Civil Engineers globally.



MECHANICAL ENGINEERING

B.Tech in Mechanical Engineering (Lateral Entry)

Program Objectives

Mechanical Engineering includes the science and art of formulation, design, development and control of systems and components involving thermodynamics, mechanics, fluid mechanics, mechanisms and the conversion of energy into useful work. The lateral entry to B.Tech in Mechanical Engineering, addresses both the quest to understand how things work and the desire to put this understanding to practical use. The student body is guided by faculty, who holds national and international recognition, who are members of prestigious engineering societies and counted among the outstanding scholars in their profession.

Mechanical Engineering technologists are specialists in the infrastructure design, development and maintenance, which include elevators, central heating, ventilation and air conditioning system and advanced security arrangements. There's a lot of technology at work in today's commercial and institutional buildings, from energy efficient boilers to complex Heating, Ventilation, Air Conditioning systems. Building systems require regular, skilled maintenance-mechanical and technical support. That's why Mechanical Engineers are in high demand.

Program Contents

Some of the key components of our program will be:

- Apply knowledge and technical expertise in building, analyzing, testing, operating and maintaining mechanical, electrical, instrumentation and control systems associated with heating, ventilation, air conditioning technologies, including relevant industry standards and code of practices
- To do maintenance, repair and production of heating, ventilation, air conditioning equipments and its systems
- To do fault diagnosis, repairing of heating, ventilation, air conditioning gadgets/domestic appliances, making joints and carrying out ducting & piping work
- To select, operate, maintain, test and repair/replace mechanical/heating, ventilation, air conditioning machinery used in various industrial and domestic appliances
- Enable to do industrial installation, laying pipes, ducting, earthing, installing indoor, outdoor units with their accessories, wiring, testing of control & operational circuits
- Preparing estimates of different kinds of jobs in domestic, industrial installation in refrigeration and air conditioning systems to install, erect and commission entire equipments

Cutting Edge Laboratories & Facilities

At Chitkara University, we have state-of-the-art laboratories including thermal engineering, heat-transfer, dynamics, metallurgy, metrology and fuels. Modern computing facilities are available for students at the CAD & Computer Integrated Manufacturing Laboratories.

Scope of Employment

- In a wide range of exciting industries including Aerospace, Automotive, Bio-medical, Chemical, Computers, Electronics, Fossil and Nuclear Power, Manufacturing, Pharmaceutical, Robotics and Textiles.
- In areas of research & development, design, testing and evaluation, manufacturing, operations and maintenance, marketing, sales and administration.
- In public sector units like Railways, ONGC, Indian Oil, ISRO, SAIL, NTPC, DDRO and IAF.

Career Opportunities

We have leading mechanical and automotive companies visiting our campus regularly for placement activities. Our students have also obtained placements at leading companies such as Infosys, Godrej, Escort, L&T, Wipro, ISMT, Mahindra & Mahindra, JCB, Eicher, Bosch, Ashok Leyland and many more.

Career opportunities abound in wide spectrum of industries as executives, specialists, technologists, engineers or managers in:

- Mechanical engineering industry
- Cement, paper, chemical & other manufacturing industry
- Building services industry
- HVAC & Facility management industry
- Operations management
- Sustainable Design & Solutions
- Clean Energy & Automation
- Research & Development

Corporate Recruitment Partners

Given below are some of the blue chip companies where students pursuing Mechanical Engineering from Chitkara College of Applied Engineering will get opportunities to work as intern or full time.





The Global University

Live independently. Gain cultural awareness. Expand your social network to span the globe. Make new friends who may become your future business collaborators in an increasingly interconnected world.

Learn in a classroom on a different continent. Experience working in the real world, around the world. Lend a hand to those in need. There are so many new experiences awaiting you at Chitkara University.



THE WORLD IS

INTERNATIONAL STUDENT EXCHANGE PROGRAMS

Gain a global perspective

Chitkara University's robust international exchange program with more than 150 overseas universities gives you the opportunity to experience living on your own in a different country. The networks you build and experiences you encounter will give you a more global and culturally sensitive perspective.

SUMMER STUDY PROGRAMS

Immerse in overseas experience

Summer Programs are short duration programs of 2-4 weeks on various specialisations. It adds to the international exposure of the

SEMESTER EXCHANGE PROGRAMS

Foster stronger bilateral ties

Chitkara students have option to finish the last half part of their degree programs at our partner Universities. Students visit Partner Universities for six months to one year for completing their semesters abroad.

Chitkara University's approach to Global Education rests on the belief that every student needs broad global knowledge and a global mindset. There are many opportunities to globalize your Education.



YOUR CAMPUS

OVERSEAS STUDY MISSIONS

Gain insights from industry leaders

Overseas study missions bring you right into the heart of multinational organisations around the world, giving you current insights on how they function through site visits. You will also go on a networking journey with prominent industry leaders,

OVERSEAS INTERNSHIPS

Step into the global marketplace

Experience for yourself how industries and businesses operate, broaden your perspective and apply your skills and knowledge to real-world business operations.

GLOBAL EXPOSURE

Cultivate empathy and the human touch

We regularly invite faculty from accredited Institutions across the world and it helps our students to understand diverse cultural and educational contexts.

Global Connections



CHITKARA UNIVERSITY HAS STRONG AGREEMENTS FOR FACULTY AND STUDENT ACADEMIC EXCHANGE WITH TOP EDUCATION PROVIDERS ACROSS THE WORLD. SOME OF THE MAJOR INSTITUTIONS ARE:

ASIA

CHINA

- Qilu University of Technology
- Zhejiang University of Science & Technology
- Qingdao Technological University Qindao College
- University of Nottingham, China

INDONESIA

- Binus Univesity
- Telkom University
- Airlangga University

TAIWAN

- China Medical University
- Providence University
- National Tsing Hua University (NTHU)
- National Chi Nan University
- National Chung Cheng University

JAPAN

- Kindai University
- Gunma University

THAILAND

- Kasetsart University
- Pathumthani University

PHILIPPINES

- Mapúa University

SOUTH KOREA

- Soongsil University
- Kookmin University
- Korea University (Sejong Campus)
- Kongju National University
- Chung Ang University
- Kyung Hee University
- Sookmyung Women's University
- Shinhan University
- Chonbuk National University
- Kyungpook National University
- Chosun University
- Sangmyung University
- Jungwon University
- Kwangwoon University
- Seoul National University of Science & Technology (SeoulTech)
- Woosong University

MALAYSIA

- HELP University
- Management & Science University (MSU)
- University of Nottingham, Malaysia
- Heriot-Watt University, Malaysia

DUBAI

- Heriot-Watt University, UAE, Dubai
- University of Birmingham, UAE, Dubai

EUROPE

UNITED KINGDOM

- London School of Economics and Political Science (LSE)
- University of Hertfordshire, UK
- University of Birmingham
- University of Nottingham
- Glasgow Caledonian University
- Anglia Ruskin University
- University of Central Lancashire (UCLAN)
- University of West of England, Bristol
- The University College London (UCL)
- Nottingham Trent University
- Heriot-Watt University

NETHERLANDS

- Amsterdam University of Applied Sciences
- Fontys University of Applied Sciences
- The Hague University of Applied Sciences

SPAIN

- University of Alicante
- Fundacio Privada Universitat I Technologia
- Universidad de Jaen
- Universidad Católica San Antonio de Murcia (UCAM)
- Universitat Rovira I Virgili

BELGIUM

- IHECS (Haute Ecole de La Province De Liege)
- Saint-Louis University, Brussels

CZECH REPUBLIC

- University of Ostrava, Czech Republic

FRANCE

- École pour l'informatique et les nouvelles technologies-EPITECH
- Lycee Emile Combes, Pons
- The Institut Polytechnique des Sciences Avancées, IPSA
- ESIGELEC – School of Engineering Rougen
- Ecole Pour L' Informatique Et Les Techniques Avacees- EPITA
- EM Normandie
- Kedge Business School
- Institut D' Etudes Politiques De Toulouse
- Sciences Po Lille
- ISTIA-Universite Angers
- Université Montpellier 2 Sciences et Techniques
- Institut Sup'Biotech de Paris
- ECAM Strasbourg
- France International Graduate Schools (FIGS)
- Institut Supérieur de Gestion (ISG)
- École supérieure des techniques aéronautiques et de construction automobile (ESTACA)
- Ecole Spéciale de Mécanique et d'Electricité (ESME Sudria)
- Sustainable Development Management Institute
- Ecole De Biologie Industrielle
- EPF Ecole d'ingenieurs (Sceaux)
- Université De Technologies De Troyes
- Groupe EDH (EFAP, ICART, EFJ)

GERMANY

- Cologne Business School
- Karlshochschule International University
- Hochschule Osnabruck University of Applied Sciences Osnabruck
- Duale Hochschule Baden Wurttemberg (DHBW)
- University of Applied Sciences Stuttgart
- Technische Universitat Chemnitz
- Hochschule Emden/LEER

HUNGARY

- Kodolanyi Janos University of Applied Science
- Algebra University College

SWITZERLAND

- HTMI

FINLAND

- Helsinki Metropolia University of Applied Sciences
- JAMK University of Applied Sciences

PORTUGAL

- Politecnico De Coimbra
- Instituto Superior De Engenharia Do Porto

RUSSIA

- ITMO University

TURKEY

- Abdullah Gul University
- Middle East Technical University
- Istanbul Ayyansaray University
- Altinbas University, Turkey

ALBANIA

- University of New York Tirana

NORTH AMERICA

U.S.A

- Central Michigan University
- University of Florida
- Purdue University
- San Diego State University
- University of Massachusetts, Lowell
- Missouri University of Science and Technology
- Northern Illinois University
- Northern Arizona University
- Portland State University
- Regents of the University of California, Irvine
- University of La Verne
- The George Washington University
- The University of California San Diego Extension
- Pennsylvania College Of Optometry
- Texas Southern University
- California State University Monterey Bay
- University of Wisconsin–Parkside
- The University of California, Berkeley-Extension
- Kent State University, USA
- California State University San Marcos

CANADA

- George Brown College
- British Columbia Institute of Technology
- Kings University College at Western University
- University of Prince Edward Island (UPEI)
- Vancouver Island University
- Georgian College
- Vancouver Film School (VFS)
- Lakehead University
- University of British Columbia
- University of Ottawa
- Medicine Hat College
- Trent University
- Red River College

MEXICO

- Universidad Autónoma del Estado de Hidalgo (UAEH)
- Benemérita Universidad Autónoma de Puebla
- Universidad Popular Autónoma del Estado de Puebla

GRENADA

- Saint George's University, Grenada

SOUTH AMERICA

BRAZIL

- PUCRS
- UNICAMP (University of Campinas)
- The Federal University of Lavras
- Federal University of São João del-Rei

PERU

- Universidad San Ignacio de Loyola (USIL)

AUSTRALIA

- Deakin University
- Edith Cowan University
- Flinders University
- Federation University
- Murdoch University
- Griffith University
- James Cook University
- Western Sydney University
- Macquarie University
- Western Sydney University
- University of New Castle

AFRICA

SOUTH AFRICA

- Regenesys Business School, Johannesburg

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