



Gyanmanjari
Innovative University

DIPLOMA ENGINEERING SCOPE

2024



Gyanmanjari Innovative University (GMIU)

Our Moto

दिव्यम् ददामि ते चक्षुः

(But you cannot see my cosmic form with these physical eyes of yours. Therefore, I grant you divine vision. Behold my majestic opulence !)



Vision of University

- The Gyanmanajri Diploma Engineering College envisions to create roomed, technically competent and skilled intellectual IT professionals.
- Institute department vision to be a recognized leader in empowering our students to stimulate the exchange and creation of knowledge.
- We aspire for a future in which Institute's active learning communities have never ending access to excellent training and learning, unrestricted by reliability issues, distance and choice of device.



Mission of University

The Institute strives to provide students with the tools to become productive, participating global citizens and life-long learners. Along with that we provide outstanding technology infrastructure, services and solutions that advance teaching and learning, enable research, empower staff to provide exceptional services, We aim to provide an atmosphere for students and faculty for continuous learning to investigate, apply and transfer knowledge and provide need based quality training in the field of Technology.



Goal

- 100% Placement
- 100% Result
- Minimum 75% Attendance
- 100% Syllabus completion
- Improve practical skills
- No single subject failure
- Overall growth of Students

A Diploma education gives you experience within a dynamic and progressive learning environment. The polytechnic institutes are dedicated to offer a number of professional courses under one roof. The courses at polytechnic help students to start his or her profession, either through a job at a well-reputed company or by starting his own business.

Advantages of Diploma Courses :

There are two ways to earn a graduate degree in engineering; either two years of higher secondary education followed by four years of engineering program or three years of engineering education after three years of study in a polytechnic college. That means you have to spend minimum 6 years in both ways to earn a graduate degree in engineering.

Career Scope in Diploma Courses :

There are many career opportunities available to you in government sector or private sector after completing polytechnic course. Some companies even prefer to recruit polytechnic students rather than engineering students. Students can also get lateral entry in B.tech (2nd year) after successfully completing diploma course.

Job Opportunities in Gov. Sector :



Indian Railway



BHEL



Airport Authority of India



Power Grid



Electricity Department

Job Opportunities in Pvt. Sector :

Bombay Dyeing, Maruti Suzuki, Tata Motors, HCL, Infosys, Siemens etc. related to your field. At entry level in these companies you can earn good salary. Diploma Engineers work as product developer, service engineer, assistant designer, analysts, junior engineer, executive etc. You can also work as lab assistant at college. There are also excellent career opportunities in the gulf countries for polytechnic engineers.

► Benefits of DIPLOMA ENGINEERING

1. Lesser Duration :

If you plan to start working immediately after the 2-3-year-long diploma course, then you can very well sustain yourself. In case you decide to go ahead with a degree course, even then you could figure out an option to work simultaneously, depending on the job requirements, field of work, etc. Or, you could simply enroll for a regular degree course into the 2nd year, immediately after completion of the diploma.

In case the diploma is 2 years long, then ideally your engineering degree would be completed in a total duration of 5 years, as compared to 6 years through the usual channel of 2 years of schooling after 10th, and 4 years of engineering degree through a university.

2. Excellent Practical Exposure :

As mentioned earlier, diploma follow the approach of more of practical exposure than theoretical knowledge. Because of which, the technical knowledge of a polytechnic student may be better in comparison to a student who has graduated 12th class.

3. Reasonable Fees :

As compared to B. Tech, BE or any other degree course, diploma through polytechnics is more affordable.

4. Change of Stream :

It is one of the best advantages in case of a diploma. In case you decide to pursue a further degree later, you will have the option of switching fields.

5. Easy Transition To Further Studies :

After completion of the Diploma course, you will be in a better position in terms of the knowledge and practical exposure of subjects, as compared to other students.

6. Other Benefits Are As Follow :

- The 3 year polytechnic diploma makes a student half engineer.
- This path is less competitive to get into Engineering compared to the path of PUC
- A diploma degree will be sufficient for junior engineering jobs
- Successful candidates can set up their own industry
- Excellent job opportunities in gulf countries
- The best option for students keen on studying technical subjects immediately after school.
- More exposure to technical world compared to PUC students

▶ GENIUS PROGRAM

GMIU offers Genius batch facility for Diploma Engineering students and Genius batch students are facilitates with below:

Startup & Incubation Facilities



Entrepreneurship Development Program



Domain related Skill Development Programs (One Module Every Semester)



Monthly Field Visit



International Exposure



Industrial Training (Internship)
(Short Duration / Long Duration)



Research Oriented Activities



National / International Competition Exposure



Application Oriented Activities



Case Study / Project Based Study
(One Project Every Year)



Special Communication Skill Development Programs



GEPS Card



Exposure to Cutting Edge Technology



Logic & Reasoning Test



Guidance for Higher & Overseas Study



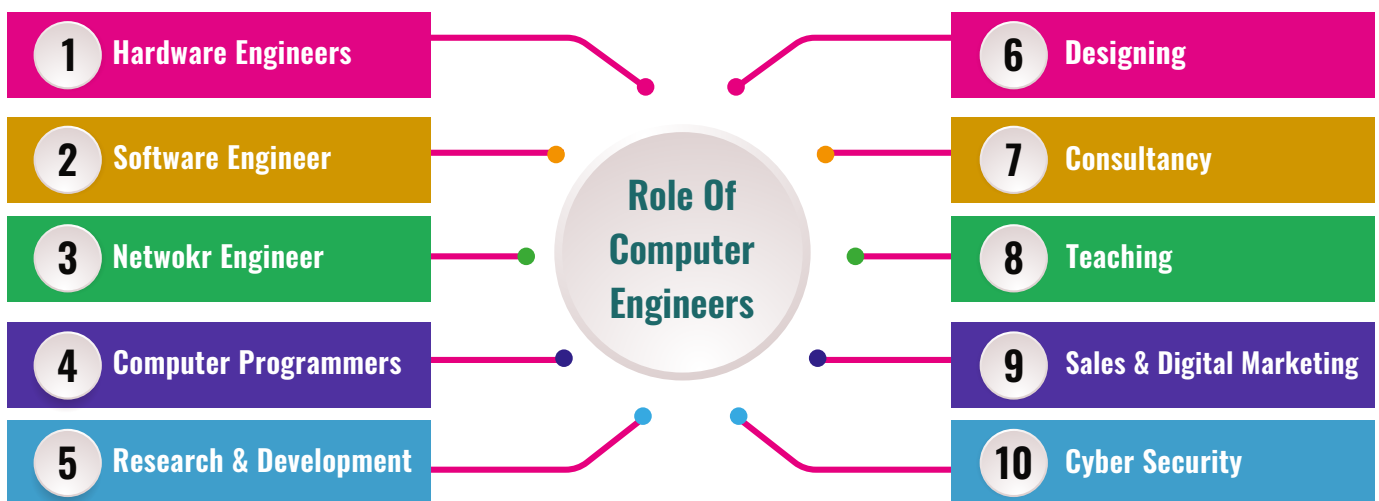
▶ COMPUTER ENGINEERING

The main objective of this course is to make the candidate strong in the current technologies and encourage them to bring up more innovative and inventory ideas in the field of automation that would be helpful in solving real-time problems.

Career Prospects :

Successful graduates on completion of Diploma in Computer Engineering course will be able to work in different career fields both in private and public sectors. These sectors may include Multi-National Organizations, Network fields, Academic Institutes, Aerospace sector, Defense sector, healthcare companies, retail companies, agriculture sectors, manufacturing companies, testing companies, development areas, maintenance etc.

Major Job Profiles include web designer, programmer, technical writer, networking expert, mobile computing expert, system analyst, software engineer, operations executive, cloud architect and SaaS architect, system administrator, mobile application developer, network administrator, etc.



Why Computer Engineering

The Digital Age Needs Computer Engineers

There Are Lots Of Jobs,
And They Are High Paying

Excellent Job
Satisfaction

Opportunities For True
Creativity And Innovation

Limitless Future
Opportunities

Demand of Computer Engineering



Top Companies Hiring Computer Engineering Students

Google

yahoo!

hp HEWLETT
PACKARD

IBM

TOSHIBA

DELL

NEC

Canon

Apple

ASUS®

acer

Lenovo

SAIC®

Sun
microsystemstcs TATA
CONSULTANCY
SERVICES

Infosys

HCL

wipro

Tech
Mahindra

Capgemini

▶ DEPARTMENT OF INFORMATION TECHNOLOGY

Introduction

A Diploma In IT Is Commonly Offered As A 3-Year Course Which Focuses On Exploring IT Technologies, Their Applications, Computer, IT Engineering, And Much More. As The Information, Technology Industry Is Ever-evolving, Its Applications Are Widespread Across Different Industries From Business And Management To Health Sciences. In Simple Terms, Information Technology (IT) Is Referred TO As The Utilization Of PCS That Can Store, Recover, Communicate And Share Information. The Data Can Be Related To A Business Or Other Zone Of The Market. A Few Businesses Combine And Work Closely In The Field Of IT, For Example, PC Hardware, Programming, Web, Telecom Hardware, Gadgets, Semiconductors, And Web-Based Business. A Diploma (IT) Course Encompasses An Array Of Foindational Concepts Such As digital electronics, state of matter, applied physics, RDBMS, and applications of java programming.

Scope of Branch:

- **Computer Technician/Support Specialist** : Graduates Can Work As Computer Technicians Or Support Specialists, Helping Individuals And Organizations Troubleshoot And Maintain Their Computer Systems And Networks.
- **Netwok Technician** : You Can Pursue A Career As A Network Technician, Responsible For Setting Up, Configuring, And Maintaining Computer Networks In Organizations.
- **System A Dministrator** : System Administrators Manage And Maintain Servers, Ensuring They Rum Smoothly And Securely. They Are Responsible For Tasks Like System Backups, Software Updates, And User Account Management.
- **Web Developer** : If The Program Includes Web Development Courses, You Can Become A Web Developer, Designing And Building Websites And Web Applications.
- **Software Tester/OA Engineer** : Diploma Holders Can Work As Software Testers Or Quality Asurance Engineers, Testing Software Applications To Identify And Report Bugs And Ensure Quality.
- **Technical Support Specialist** : You Can Work In Technial Support, Assisting Users With Software Or Hardware Issues, And Providing Solutions Over The Phone, Email, Or In Person.
- **Database A Dministrator** : Database administrators Manage And Maintain Databases, Ensuring Data Integrity, Security, And Performance.
- **IT Sales And Marketing** : Some Individuals Choose To Work In Sales And Marketing Roles For IT Companies, Promoting And Selling IT Products And Services.
- **IT Consultant** : Graduates Can Become IT Consultants, Offering Expertise And Quidance To Businesses On How To Leverage Technology To Achieve Their Goals.\
- **Cybersecurity Technician** : If The Program Covers Cybersecurity Topics, You Can Work As A Technician Focused On Maintaining The Security Of Computer Systems And Networks.
- **Entrepreneurship** : With The Right Skills And Knowledge Gained From The Diploma, You Might Decide To Start Your Own IT-Related Business Or Freelance As A Consultant Or Developer.

Different Job Title

1. Network Engineer
2. Systems Engineer
3. DevOps Engineer
4. Software Engineer
5. Database Administrator (DBA)
6. Cloud Engineer
7. Security Engineer
8. IT Support Engineer
9. Infrastructure Engineer
10. Web Developer
11. Mobile App Developer
12. Data Engineer
13. AI/ML Engineer (Artificial)
14. QA Engineer (Quality Assurance)
15. Network Administrator
16. Systems Administrator
17. Cybersecurity Analyst
18. IT Project Manager
19. IT Consultant
20. IT Architect

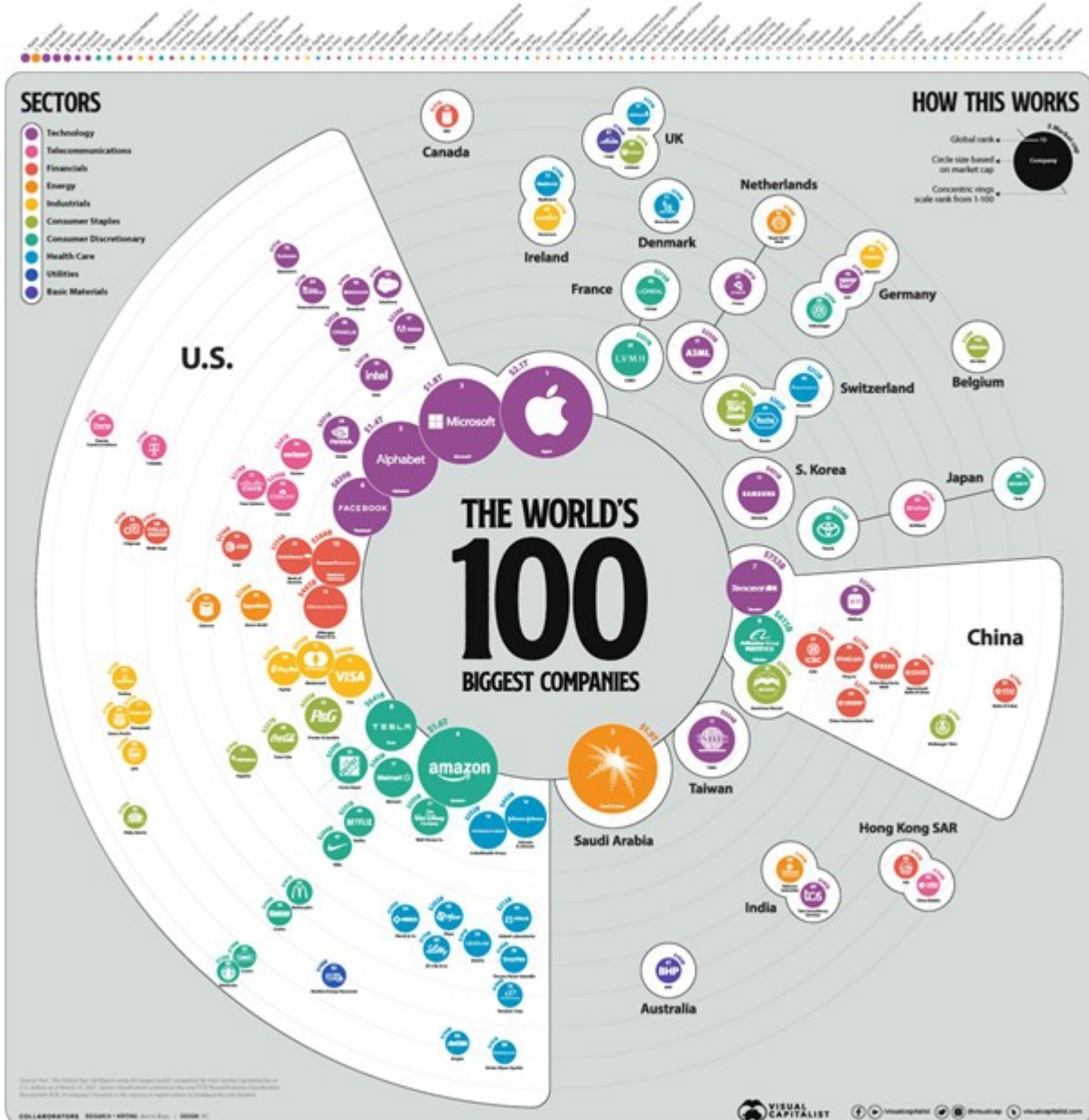


Top Companies

- **Tata Consultancy Services (TCS)** - TCS is one of the largest IT services and consulting companies in India and is a part of the Tata Group.
- **Infosys** - Infosys is a global IT services and consulting company headquartered in Bengaluru, India.
- **Wipro Limited** - Wipro is another major Indian IT company that offers a range of IT services and solutions.
- **HCL Technologies** - HCL Technologies provides IT services, business process outsourcing, and infrastructure management services.
- **Tech Mahindra** - Tech Mahindra is a multinational IT services company and a part of the Mahindra Group.
- **Cognizant Technology Solutions** - Although headquartered in the United States, Cognizant has a significant presence in India and offers IT services to clients worldwide.
- **Larsen & Toubro Infotech (LTI)** - LTI is a global IT services and solutions company and is a subsidiary of Larsen & Toubro Limited.
- **Mindtree** - Mindtree is an Indian IT company that provides digital transformation and technology consulting services.
- **Mphasis** - Mphasis offers IT services, including application development and infrastructure management.
- **Hexaware Technologies** - Hexaware specializes in IT consulting, application development, and business process outsourcing.
- **KPIT Technologies** - KPIT is an IT company that focuses on automotive and mobility solutions, among other services.
- **Persistent Systems** - Persistent Systems provides software and technology services to various industries.



GLOBAL MARKET CAP RANKINGS March 31, 2021



▶ MECHANICAL ENGINEERING

Mechanical engineering is one of the oldest branches of engineering. It is also referred to as the 'mother' branch of engineering. Another appealing feature of mechanical engineering is that the application base of this field of study is extremely broad and diverse. Almost all inventions during the ancient period and a vast majority in the modern era are direct contributions of one or the other application of mechanics.

Traditionally, mechanical engineers have to deal with concepts such as mechanics, thermodynamics, robotics, kinematics, structural analysis, fluid mechanics and many others. These concepts are applied in the process of designing state-of-the-art manufacturing units, different types of motor vehicles, aircraft and aerospace parts and a vast assortment of industrial machinery. Mechanical engineers also contribute in the development of various engines, power plant equipment, heating and cooling systems and other simple and complex machinery. Mechanical engineers not only design new mechanical systems but they are also responsible for testing, maintaining and manufacturing them.

The aforementioned are the conventional roles and responsibilities of mechanical engineers. However, times have changed. Nowadays the scope of mechanical engineering is expanding beyond its traditional boundaries. Mechanical engineers are focussing their attention towards new areas of research such as nanotechnology, development of composite materials, biomedical applications, environmental conservation, etc.

The ever increasing scope of this particular job profile now requires professionals to get into financial and marketing aspects of product development and even into people and resource management. All in all mechanical engineering offers a wide bouquet of job options to students who are looking for a stable and stimulating career.

Positive Side of Mechanical Engineering

There are umpteen job openings and you will not remain unemployed

- Constant involvement in the development of new components, gadgets and machines
- Innovative contribution to the new frontiers of science such as nanotechnology, biomedical engineering and environmental sciences
- Not hit by recession or global economic meltdown



Different Roles, Different Names

- **Research and Development (R&D)** : Engineers whose role is to do research and then plan for new machines and their constituent parts.
- **Design** : Professionals whose responsibility is to draft technical drawings, manually or with the aid of computers.
- **Production** : Engineers who supervise the manufacturing of mechanical components and machines.
- **Analysis and testing** : Engineers who analyse and test different types of machines and their parts to ensure that they function flawlessly.
- **Installation** : Professionals who install machines and mechanical parts at the client location.
- **Maintenance** : Engineers whose primary role is to ensure that machinery is working as per specifications.

Top Companies



Automobile and auto part manufacturers



Aerospace industry



Various Government sector undertakings



Aviation companies



Steel plants



Thermal plants and gas turbine manufacturers



Air conditioning and refrigeration industry



Shipping industry



Engineering consultancies



Armed forces

► CIVIL ENGINEERING

Diploma in Civil Engineering is a 3-year long course in engineering, specializing in the design, construction, and maintenance of physical and naturally-built environment, such as roads, bridges, canals, dams and buildings.

In fact, the entire infrastructural framework of a modern nation is the creation of civil engineers. The credit of building mighty power plants, dams, airports, sea ports, highways, inland waterways and industrial plants goes to civil engineers. These professionals are also engaged in building an unending array of urban structures such as commercial complexes, skyscrapers, tunnels, bridges, roads, urban rapid transport systems, sports stadia and so on.

Scope

There is an endless demand for this job profile both in the private as well as in public sector undertakings in our country.

- In big cities like Mumbai, Bangalore and Chennai, new employees are even paid salaries that come close to salaries of Information Technology professionals.
- Construction industry is experiencing a boom in the country and lucrative opportunities are plentiful.
- You derive the satisfaction of having built numerous structures that facilitate the betterment of the society and the country.



Different Roles, Different Names

The following are some of the important branches of civil engineering:

- **Construction engineering:** This branch involves construction of highways, railroads, airports, power plants, bridges, tunnels, skyscrapers and so on. As per their abilities and position, engineers generally take care of different aspects of construction as well as business management. They have to manage project planning, costing and budgeting, scheduling, quality assurance, quality control, on site layout survey, material testing, material procurement, etc.
- **Hydraulic engineering :** Engineers in this field primarily make their contribution in setting up structures associated with different water bodies. They contribute in the development of hydroelectric plants, dams, irrigation and navigable canals, reservoirs, bridges, culverts, storm sewers, water pipelines, etc.

- **Coastal and ocean engineering** : This branch of civil engineering involves monitoring coastal areas and taking adequate steps to protect them from sea storms, flooding and erosion. These professionals also have a hand in the development of various sea port facilities.
- **Transportation engineering** : Engineers in this branch are concerned about the development of city roads, interstate highways, railroads, airfields, pavements, canals and urban mass rapid transport systems. They also play an active role in urban development and planning, traffic management and betterment of the transport system in the country.
- **Materials engineering** : This branch of experts has to ensure the quality and durability of a vast variety of materials used in the development of different edifices. Material engineers usually deal with materials such as cement, concrete, concrete additives, metals and alloys, polymers and paints.
- **Structural engineering** : Structural engineers are responsible for analysing different types of stresses and strains that a structure has to endure during and after it has been built. The study generally involves the identification of different types of loads that would act upon a structure and plans for making the structure safer from these loads. Structural engineers are also concerned about the overall strength of a structure when it is built so that it can withstand the onslaught of natural elements as well as human intervention.
- **Earthquake engineering** : Seismic activity is the biggest enemy of all types of manmade structures. Experts who research the impact of earthquake on different types of edifices and implement quake resistant measures are referred to as earthquake engineers.
- **Urban engineering** : Engineers responsible for the design and development of urban public utilities are categorised as urban engineers. Public works include structures such as city roads, pavements, fresh water pipelines, waste water disposal systems, public parks and so on. These engineers play an important role in urban planning as they are primarily responsible for setting up the core infrastructural requirements of an urban area.
- **Environment engineering** : Although a relatively new field, this branch of civil engineering is rapidly gaining importance with the growing emphasis on environment protection and sustainability. These engineers have to develop strategies for protecting the environment from air, water and land pollution. They have to manage issues such as solid waste management, water treatment, air and water pollution, safe disposal of hazardous materials. Another dimension of this profile is the construction of buildings that are environmental friendly, energy efficient and green.

Top Companies



▶ ELECTRICAL ENGINEERING

- “Electrical Engineering” is the field where we deal with the energy that runs our world. It can be exists in various forms like gas, fuel cell, turbine, hydro, solar, wind or geothermal energy.
- Electrical engineering has the complete knowledge to utilize and distribute these energies out from their sources to our factories, home, hospitals, school and offices, and our life.
- And it does not stop here.
- Today, electrical engineering not only involves in electrical appliances, but also involves in computer, electronics, communication and mechanical fields.

Popular Job Profiles for Electrical Engineers

Some of the popular job profiles for students pursuing electrical engineering are as follows -

- Chief engineer
- Quality control engineer
- Control and instrumentation
- Engineer
- Design engineer
- Electrical engineer
- Broadcast engineer
- Manufacturing systems engineer
- Systems analyst
- Electronics engineer
- IT consultant
- Systems developer
- Network engineer

Popular Recruiters That Offer Great Employment Opportunities

Some of the popular organizations that recrui electrical engineer are as mentioned below -

Government Sector

- Bharat Heavy Electricals Limited (BHEL)
- Power Grid Corporation of India Limited (PGCIL)
- Steel Authority of India Limited (SAIL)
- Indian Space Research Organization (ISRO)
- National Thermal Power Corporation Limited (NTPC)
- NSPCL
- State Electricity Board
- GAIL

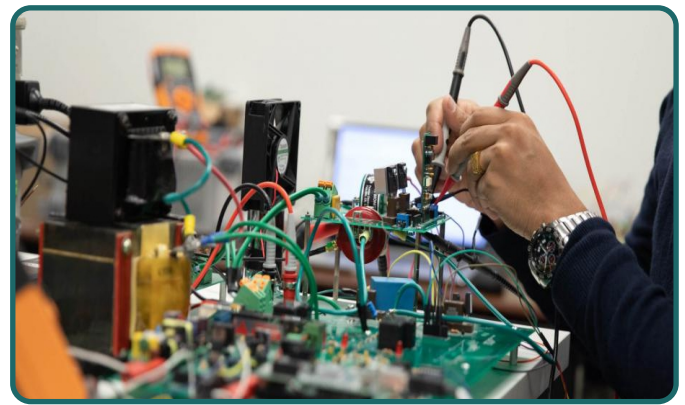
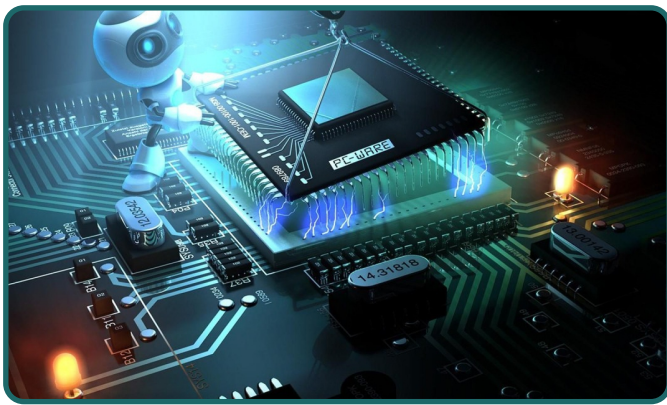
Private Sector

- Tata Motors
- Tata Steel & Power Limited
- L&T Construction and STEEL
- ZENITH Construction
- Jindal Steel & Power Limited
- OMEGA Elevator



▶ ELECTRONICS AND COMMUNICATION ENGINEERING

Diploma in Electronics and Communication Engineering (ECE) is a branch of engineering that deals with the study of electronic systems, communication systems, and related technologies. It involves the design, development, testing, and maintenance of various electronic and communication devices and systems. ECE focuses on the principles of electronics, electromagnetic fields, digital and analog signal processing, control systems, and communication theory.



Technology Advancements and Innovation:

ECE is at the forefront of technological advancements, and this trend is expected to continue. Innovations such as 5G technology, Internet of Things (IoT), artificial intelligence (AI), machine learning, robotics, and augmented reality are driving the future of electronics and communication.

Telecommunications Industry:

The telecommunications industry offers abundant opportunities for ECE graduates. With the advent of 5G technologies and the continuous expansion of mobile networks, there's a growing need for professionals to design, optimize, and maintain communication infrastructure.

Information Technology (IT) Industry:

ECE professionals are highly sought after in the IT industry, especially in roles related to software development, system integration, network administration, cyber security, and database management. The blend of electronics and computing skills makes ECE graduates valuable in this sector.

Consumer Electronics and Appliances:

The consumer electronics industry, including companies producing smartphones, laptops, televisions, and smart home devices, relies heavily on ECE expertise. Professionals are needed for product design, development, testing, and quality assurance.

Automotive and Aerospace:

ECE graduates are instrumental in designing and implementing advanced electronics in modern vehicles and aircraft. This includes embedded systems, control systems, communication networks, and navigation systems.

Scope Of E.C. Engineering

- **Healthcare and Medical Devices** : The healthcare sector is increasingly utilizing electronics for medical imaging devices, wearable health monitors, telemedicine, and diagnostic equipment. ECE professionals contribute to the design, development, and maintenance of such technologies.
- **Defense and Security** : The defense sector requires ECE professionals to work on communication systems, radar systems, electronic warfare, surveillance technologies, and encryption systems. National security initiatives continually drive demand in this area.
- **Research and Development (R&D)** : R&D is a vital area where ECE professionals can work on cutting-edge projects, exploring new technologies, and conducting research in both public and private research institutions.
- **Entrepreneurship and Startups** : ECE graduates can venture into entrepreneurship, creating startups focusing on electronics manufacturing, communication technologies, IoT solutions, smart devices, or software development.
- **Consulting and Advisory Services** : ECE professionals can provide consulting services to various industries, advising on technology adoption, system optimizations, and process improvements.
- **Academia and Education** : Many ECE graduates choose to pursue higher studies and academic careers, becoming professors, researchers, and educators in universities and colleges.

Different Roles, Different Names

Electronics and Communication Engineering (ECE) offers a wide range of career opportunities across various industries.

- **Electronics Design Engineer** : Responsible for designing and developing electronic circuits and components, ensuring they meet performance and safety standards.
- **Hardware Engineer** : Works on the physical components of electronic systems, including circuit boards, processors, memory devices, and other hardware components.

- **Embedded Systems Engineer** : Focuses on designing and programming embedded systems that are integrated into various devices and appliances for specific functions.
- **Signal Processing Engineer** : Works with digital and analog signals, analyzing, modifying, and interpreting data to improve the quality of signals for various applications.
- **Telecommunications Engineer** : Designs, implements, and maintains communication systems, networks, and equipment, often specializing in areas like mobile networks, satellite communication, or optical communication.
- **Control Systems Engineer** : Designs and maintains control systems used in various applications, such as robotics, automation, and industrial processes, ensuring smooth and precise operation.
- **RF (Radio Frequency) Engineer** : Specializes in working with radio frequency technologies, including designing and optimizing RF systems for wireless communication.
- **Network Engineer** : Works on the design, implementation, and maintenance of computer networks, ensuring seamless connectivity and data transfer within an organization.
- **VLSI (Very Large Scale Integration) Design Engineer** : Focuses on designing and developing integrated circuits with millions of transistors, crucial for the development of modern electronics.
- **Test and Measurement Engineer** : Develops testing procedures and equipment to evaluate the performance and functionality of electronic components, devices, and systems.
- **Communication Systems Analyst** : Analyzes and optimizes existing communication systems to enhance performance, capacity, and reliability.
- **Machine Learning Engineer (in ECE)** : Applies machine learning algorithms and techniques to solve problems related to signal processing, data analysis, and pattern recognition.
- **Broadcast Engineer** : Works in the broadcast industry, maintaining and operating equipment for radio, television, or streaming services.
- **Telecom Software Engineer** : Focuses on software development for telecom applications, including protocol development, network management, and service provisioning.
- **Quality Assurance Engineer (in Electronics)** : Ensures that electronic products and systems meet defined quality standards and specifications by conducting rigorous testing and inspections.
- **Research and Development Engineer** : Engages in research activities to develop new technologies, improve existing systems, and innovate solutions in the electronics and communication domain.
- **Technical Sales Engineer** : Combines technical knowledge with sales skills to promote and sell electronic and communication products or services to clients.
- **Consulting Engineer** : Provides expert advice and consulting services to organizations on electronic and communication projects, optimizations, or technology implementations.

These roles offer diverse career paths within the field of Electronics and Communication Engineering, allowing professionals to specialize in areas of their interest and expertise.

CHEMICAL ENGINEERING

INTRODUCTION:

Chemical engineering is an engineering field which deals with the study of operation and design of chemical plants as well as methods of improving production. Chemical engineers develop economical commercial processes to convert raw materials into useful products. Chemical engineering uses principles of chemistry, physics, mathematics, biology, and economics to efficiently use, produce, design, transport and transform energy and materials. The work of chemical engineers can range from the utilization of nanotechnology and nanomaterials in the laboratory to large-scale industrial processes that convert chemicals, raw materials, living cells, microorganisms, and energy into useful forms and products. Chemical engineers are involved in many aspects of plant design and operation, including safety and hazard assessments, process design and analysis, modeling, control engineering, chemical reaction engineering, nuclear engineering, biological engineering, construction specification, and operating instructions.

Chemical engineers typically hold a degree in Chemical Engineering or Process Engineering. Practicing engineers may have professional certification and be accredited members of a professional body. Such bodies include the Institution of Chemical Engineers (IChemE) or the American Institute of Chemical Engineers (AIChE). A degree in chemical engineering is directly linked with all of the other engineering disciplines, to various extents.



SCOPE OF CHEMICAL ENGINEERING:

Chemical Engineering graduates are hired across various industries owing to large production and export demands. The chemical industry in India is currently booming, with larger share occupied by food products, petrochemicals, pharmaceuticals and fertilisers. This makes Chemical Engineering an excellent career option for engineering aspirants. There are various job opportunities provided by private and government organisations. The following core industries, namely Petrochemicals, Cement, Natural Gas, Fertilisers, Refinery Products, Crude oil hire chemical engineering graduates.

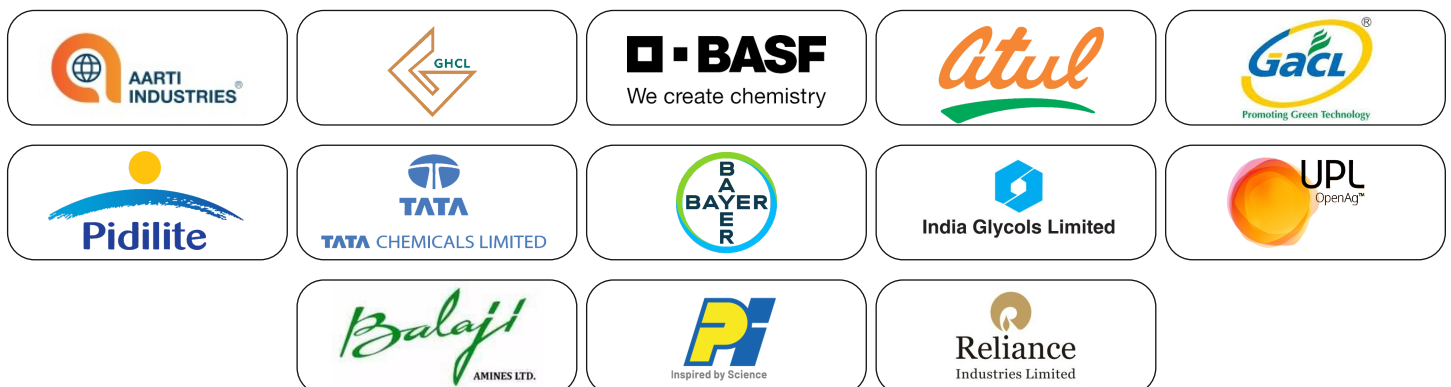
- **Petrochemicals** : Petroleum Engineers and Chemical Engineers are hired across petrochemical industries such as Reliance, Schlumberger etc. For extraction and refining petrochemical products. It hires researchers and professionals in order to conduct research and suggest improved production and refining process.
- **Energy Sector** : Energy sector concerns itself with production of energy from natural resources such as Natural Gas and Coal. Chemical engineering graduates deal with production of alternative sources of energy and suggest innovative methods for addressing energy crisis.
- **Manufacturing** : Chemical engineering also deals with large-scale manufacturing of fuels, chemicals, food products, fast-moving consumer goods etc. It applies principles of advanced manufacturing and utilise additive manufacturing process such as 3D printing method in order to manufacture products in large scale.
- **Fertilisers Industry** : Graduates are hired across various fertilisers and pesticides production plants in various job profiles such as research and development, process engineering, production units, safety and quality assurance or managerial roles of marketing, sales and human resources.
- **Food Science** : Graduates are hired across various food industries and downstream or upstream industries for various processes such as addition of food additives and preservatives, fuel utilisation, freezing systems, frozen food production, microwave heating, fermentation and pickling, storage and canning etc.
- **Academics and Research** : Graduates can also enter into the field of academics by pursuing higher studies in the field of Chemical Engineering. They can pursue MTech or PhD in the field of Chemical Engineering. They must seek research projects and pursue doctoral or post-doctoral programmes in order to make a career in research organisations. They can also join any reputed college or institution as faculty and contribute to the field of academics.
- **Pharmaceuticals** : Chemical engineers are involved in the design and development of new drugs, as well as the production of existing drugs. They work with biologists and pharmacologists to develop new treatments and optimize drug production processes.

Different Roles, Different Names

- **Water engineer** : A water engineer, or a water resources engineer, is a professional who helps create clean drinking water systems. Their duties can include designing water disposal systems, creating water treatment plans and ensuring water systems follow environmental guidelines. Depending on their role, they may use chemical engineering skills to design and test water to ensure it's clean.
- **Chemical engineer** : A chemical engineer is a professional who uses mathematical reasoning and scientific thinking to solve problems involving chemical processes. They may specialize in a certain area, such as food, fuel or pharmaceutical production. Their duties can include evaluating manufacturing systems, creating new production equipment or processes and testing products or systems. They may also design safety protocols to ensure team members are safe when working with chemicals.
- **Petroleum engineer** : Petroleum engineers develop, refine and maintain extraction systems within the gas and oil industry. Their duties may include designing treatment plans involving fuel products, creating new extraction facilities, overseeing the extraction process and developing new extraction techniques. They may also test, design and oversee production for new extraction equipment.
- **Project engineer** : A project engineer is a professional who oversees a technical project. They can work in a variety of industries, such as construction, energy production, architecture and manufacturing. Their responsibilities may include designing project budgets and schedules, dividing project tasks to team members and monitoring project progress. They may also communicate with clients, ensure the project complies with local guidelines and evaluate project quality during production.

- **Energy engineer** : Energy engineers oversee projects and products related to energy consumption and efficiency. They may specialize in certain energy areas, such as heating, solar panels or air quality. Energy engineers may assess a building or company's current energy consumptions and make suggestions. They can also create energy-efficient plans, procedures and systems for new buildings.
- **Manufacturing engineer** : A manufacturing engineer is a professional who evaluates and refines manufacturing systems. Their duties can include analyzing an organization's current manufacturing systems, suggesting improvements to help improve efficiency or lower costs and designing improvement plans. They may also help create new systems for a production company and design alternative procedures to increase productivity.
- **Environmental engineer** : Environmental engineers use mathematical reasoning, environmental knowledge and scientific processes to help solve environmental problems. Their responsibilities can include assessing environmental concerns, measuring pollution levels and advising local officials on environmental policies. They can also collaborate on environmental projects regarding climate change or sustainability programs. Depending on their role, they may focus on chemical processes involving pollution and sustainable production.
- **Process engineer** : A process engineer is a professional who specializes in production equipment and processes. They oversee the production process to ensure materials change into final goods. Their responsibilities can include testing equipment, creating new equipment designs, maintaining production reports and analyzing the production process to find areas of improvement. They may also make suggestions to help reduce costs and increase efficiency.
- **Product development engineer** : Product development engineers are responsible for creating new products. They oversee the entire design process. Their duties can include writing new design plans, selecting materials, making prototypes or samples and testing the products. They may use test data to refine the products before mass production.
- **Nuclear engineer** : A nuclear engineer is a professional who uses engineering skills to design and improve processes involving nuclear energy or radiation. Their duties can include creating new nuclear equipment, testing nuclear materials and writing safe disposal instructions. They may also oversee a nuclear plant and ensure all team members comply with safety guidelines.
- **Materials engineer** : Materials engineers specialize in the materials involved in production. They may research, test and analyse all materials used in the manufacturing process. Their duties can include researching costs, creating project budgets, conducting material tests and monitor how materials react. They may also collaborate with a production and development team during the manufacturing process.

These roles offer diverse career paths within the field of Chemical Engineering, allow professionals to specialize in areas of their interest and expertise.



▶ COMPUTER AIDED COSTUME DESIGN AND DRESS MAKING (CACDDM)

Career Prospects:

Graduates of this diploma course can find employment opportunities in the fashion industry as costume designers, dressmakers, fashion illustrators, and fashion consultants. They can also work in theater, film, television, and advertising industries.

Why Computer aided costume design and dress making ?

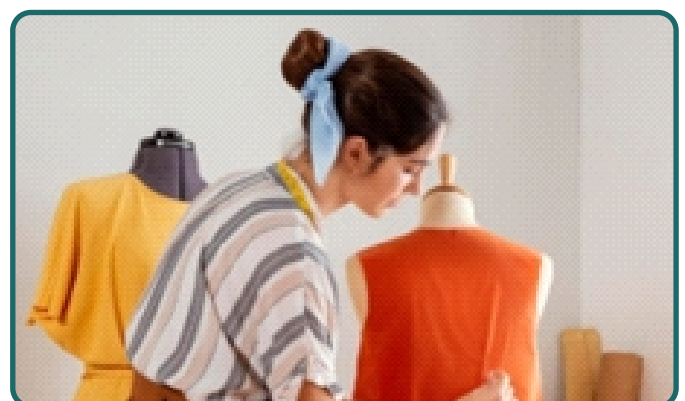
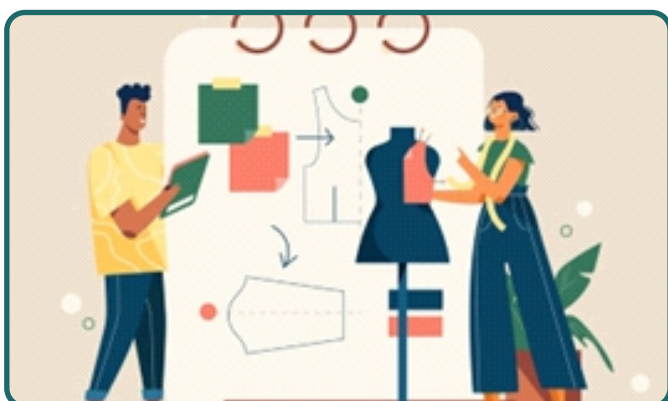
Studying a diploma in fashion design provides students with the necessary skills and knowledge to pursue a career in the fashion industry. It teaches them the fundamentals of design, pattern making, and garment construction, as well as the business aspects of the industry. Students will learn how to create innovative designs that reflect current trends and consumer preferences. They will also gain experience working with different fabrics and materials, and learn how to manage production processes.

Role of Costume Designer:

A costume designer is responsible for creating and designing clothing, accessories, and footwear. They research fashion trends, sketch designs, select fabrics and materials, create patterns, and oversee the production process. Fashion designers must have a strong understanding of textiles, color, and design principles. They work closely with buyers, merchandisers, and production teams to ensure that their designs are produced on time and within budget.

Some job roles that graduate can pursue include:

- Fashion Designer
- Dressmaker
- Fashion Illustrator
- Fashion Consultant
- Textile Designer
- Pattern Maker
- Stylist



Some of the top companies hiring fashion design students include:

LAKMÉ

M

MANISH MALHOTRA


SABYASACHI
CALCUTTA

RITU KUMAR

TARUN TAHILIANI



ANITA DONGRE

SHANTNU  NIKHIL



JJ VALAYA
ESTABLISHED 1992

ABUJANI
SANDEEP KHOSLA

maşaba

INTERNSHIP PROJECT IN
GRAPHIC DESIGN

► Interior Design

Career Prospects:

Graduates of this diploma course can find employment opportunities in the interior design and furniture industry as interior designers, furniture designers, space planners, and decorators. They can also work in architecture firms, construction companies, and real estate agencies.

Why Interior Design ?

A diploma in interior design equips students with the skills and knowledge needed to design functional and aesthetically pleasing spaces. It teaches them about space planning, color theory, furniture selection, and lighting design. Students will learn how to create designs that meet the needs and preferences of clients, while also considering factors such as safety, accessibility, and sustainability. They will also gain experience working with architects, contractors, and other professionals to ensure that their designs are executed properly.

Role of Interior Designer:

An interior designer is responsible for creating functional and aesthetically pleasing spaces for clients. They work with clients to understand their needs and preferences, create design concepts, select furniture and decor, and oversee the installation process. Interior designers must have a strong understanding of space planning, color theory, and materials. They work closely with architects, contractors, and other professionals to ensure that their designs are executed properly. Some job roles that graduate can pursue include:

- Interior Designer
- Furniture Designer
- Space Planner
- Decorator
- Project Manager
- Sales Representative
- Visual Merchandiser



Some of the top companies hiring interior design students include:



Overall, studying diplomas in costume design and interior design can lead to exciting and rewarding careers in these fields. Graduates can work for fashion companies, interior design firms, or start their own businesses. They will have the opportunity to use their creativity and design skills to make a positive impact on people's lives and companies offer a range of opportunities for graduates, including entry-level positions, internships, and freelance work. They also provide opportunities for professional growth and development, as well as exposure to different areas of the industry.