Author

MOHIT MANGAL

A Complete Career Guide

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Engineering Career Guide

ENGINEERING & TECHNOLOGY

For students wishing to pursue Technical Education after 12th in INDIA

Book contains **Description of Course**, **Professions** and their Definitions, **Qualities Required** in candidates, Available **Degrees** in India, **Career Prospects** and their explanation, **Specializations** and their Definitions, **Entrance Exam** details with dates along with **TOP Universities and their Rankings**

(Edition-1 July 2019)

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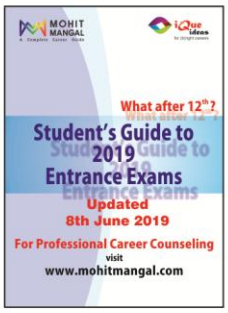

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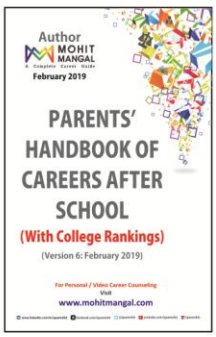

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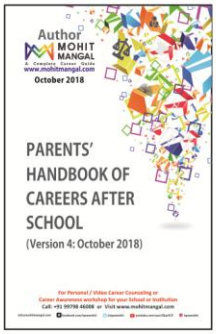

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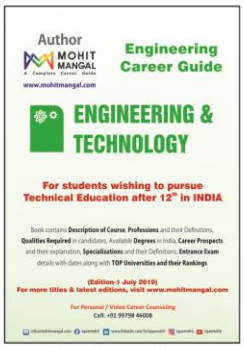

Engineering & Technology

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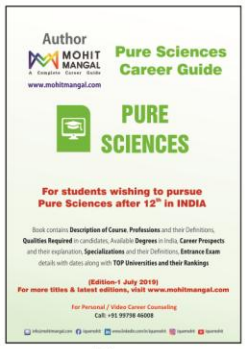

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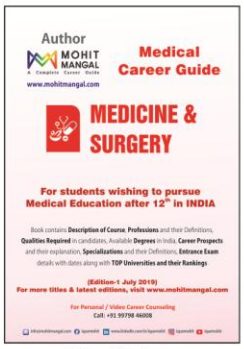

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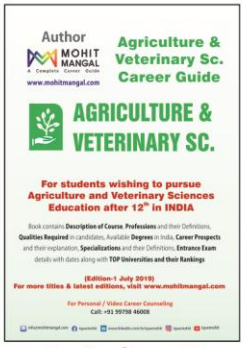

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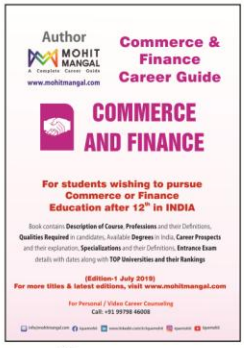

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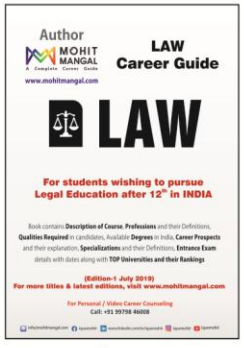

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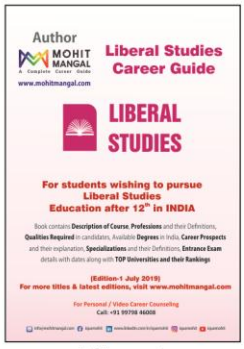

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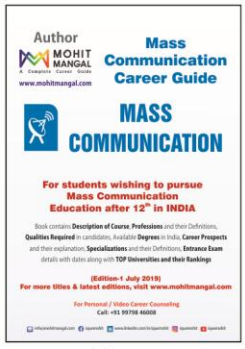

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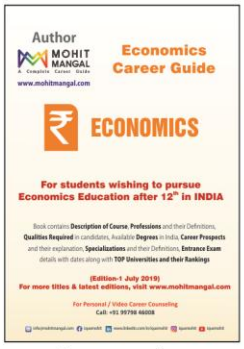

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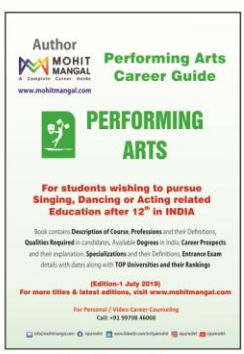

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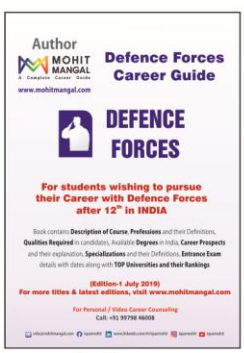

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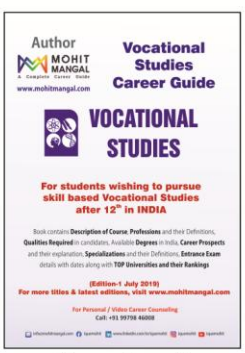

Vocational Studies

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ALL ABOUT ENGINEERING EDUCATION IN INDIA

Description of Profession: (What does one do in this?)

If you take a look around yourself you will find things such as tables, chairs, television or even your clothes. Everyday to-do things that we see around ourselves require engineering. There are various fields of engineering that emerged when humans evolved in modernization. The concept of engineering has been carried on since ages through humans to device their basic manpower help, such as pulley, carriages, wheels etc. These inventions served mechanical help to humans and helped reducing excess manpower.

The word engine itself is derived from the Latin ingenium which means ''to create''. Later, as the infrastructure of the cities and villages developed, the term ''civil engineer'' came into existence. They specialized their abilities in building infrastructures both in military and non-military fields. The first Engineering college of India is College of Engineering, Guindy, which was established in Chennai in the year 1746.

In a nut shell, Engineers, as practitioners of engineering, are people who invent, design, analyze, build and test machines, systems, structures and materials to fulfil objectives and requirements while considering the limitations imposed by practicality, regulation, safety, and cost. The work of engineers forms the link between scientific discoveries and their subsequent applications to human & business needs and quality of life.

Professions available to candidates after completing Engineering & Technology Education

1. **Aerologist:** An expert in the branch of meteorology. They studies the total vertical extent of the Earth's atmosphere as opposed to the atmosphere near the Earth's surface only.
2. **Aerospace Engineer:** An expert in the field of engineering concerned with the development of aircraft and spacecraft. It has two major and overlapping branches: Aeronautical engineering and Astronautical Engineering.
3. **Aerospace Materials Specialist:** Aerospace Materials Specialists make sure the right material is used for the right job and are involved in developing, selecting or evaluating materials for Aircraft Development. Aerospace Materials Scientists and Engineers can be involved in research and development or production of anything from paint to lasers used in the building and development of Aircrafts.
4. **Agricultural & Food Engineer:** An expert in a specialized multi-disciplinary field of engineering that combines science, microbiology, and engineering education for food and allied industries.
5. **Air Traffic Controller:** Air traffic controllers maintain the flow of aircraft in and out of airports and in flight to maintain aviation safety.
6. **Aircraft Maintenance Technician:** Aircraft technicians maintain and repair all types of aircraft, including planes, helicopters, blimps and balloons. In addition to traditional tasks, some technicians conduct testing on a plane's communication and diagnostic systems or work specifically on electrical systems.
7. **Aircraft Structures Technician:** Aircraft Structures Technicians are members of the air maintenance team who handle, service and maintain Canadian Armed Forces (CAF) aircraft and associated equipment. They are responsible

for the maintenance and repair of aviation life support equipment, aircraft structures and related components.

8. **Airline Pilot:** An airline pilot is contracted to an airline and transports people and cargo locally and around the world. A part of the job would be flying long or short haul flights for business leisure or commercial purposes.
9. **Astrobiologist:** An expert who studies the origin, evolution, distribution and future of life in the universe: extraterrestrial life and life on Earth.
10. **Astrogeologist:** Experts who study the geology of the Earth's Moon, other planets and their moons, comets, asteroids, and meteorites.
11. **Astronaut:** An astronaut or cosmonaut is a person trained by a human spaceflight program to command, pilot, or serve as a crew member of a spacecraft.
12. **Audio and Video Technologist:** Audio visual production specialists install, monitor and maintain sound and video equipment, including speakers, microphones, video monitors and projection screens.
13. **Automobile Engineer:** Engineers specialized in designing, manufacturing and operating automobiles, a segment of vehicle engineering which deals with motorcycles, buses, trucks, etc. It includes mechanical, electrical, electronic, software and safety elements.
14. **Avionics and Electronics Technician:** Avionics technicians install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles. They test and troubleshoot instruments, components, and assemblies, using circuit testers, oscilloscopes, or voltmeters.
15. **Biochemical Engineer:** Biochemical Engineers develop usable, tangible products, using knowledge of biology, chemistry, or engineering. Solve problems related to materials, systems, or processes that interact with humans, plants, animals, microorganisms, or biological materials.

16. **Biotechnology Engineer:** Engineers of highly interdisciplinary field that combines biological sciences with engineering technologies to manipulate living organisms and biological systems to produce products that advances healthcare, medicine, agriculture, food, pharmaceuticals and environment control.

17. **Building Surveyor:** Building surveyors offer advice on many aspects of design and construction, including maintenance, repair, refurbishment and restoration of proposed and existing buildings.

18. **Ceramic Engineer:** Ceramic engineers develops manufacturing processes and equipment for converting ceramics into useful products. They test various combinations of materials to create ceramics that are durable and economical.

19. **Chemical Engineer:** Chemical engineers design and troubleshoot processes for the production of chemicals, fuels, foods, pharmaceuticals, and biologicals, just to name a few. They are most often employed by large-scale manufacturing plants to maximize productivity and product quality while minimizing costs.

20. **Civil Engineer:** Civil engineers conceive, design, build, supervise, operate, construct, and maintain infrastructure projects and systems in the public and private sector, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment.

21. **Climatologist:** An expert who studies weather patterns over a period of time. Their work is similar to that of meteorologists but focuses on a much longer timescale, studying trends over months, years or even centuries.

22. **Commercial Pilot:** A commercial pilot is a pilot who can display a minimum level of skills and understanding to a licensing authority and has earned their commercial pilot license , which allows them to be remunerated for their services. They can also legally fly for hire.

23. **Computer Scientist:** Computer scientists use technology to solve problems. They write software to make computers do new things or accomplish tasks more efficiently. They create applications for mobile devices, develop websites, and program software.

24. **Construction manager:** A construction manager supervises and manages contractors and laborers at construction sites. Often they meet with architects, specialized trade employees, and civil engineers on projects or upcoming builds.

25. **Cosmologist:** An expert in the study of astronomy that involves the origin and evolution of the universe, from the Big Bang to today and on into the future. According to NASA, the definition of cosmology is "the scientific study of the large scale properties of the universe as a whole."

26. **Electrical Engineer:** An electrical engineer is someone who designs and develops new electrical systems, solves problems and tests equipment. They study and apply the physics and mathematics of electricity, electromagnetism and electronics to both large and small scale systems to process information and transmit energy.

27. **Electrobiologist:** An expert who studies about the production and use of electricity by biological organisms.

28. **Electrometallurgist:** A specialist in electrometallurgy. Electrometallurgy is a method that uses electrical energy to produce metals by electrolysis.

29. **Electronics & Communication Engineer:** Engineers experts in the application of science and mathematics to practical problems in the field of electronics and communications. Electronics and communications engineers engage in research, design, development and testing of the electronic equipments used in various systems.

30. **Electronics & Electrical Engineer:** EEE engineers focuses on the analysis, design, development and manufacture of electrical equipments, electronic devices, Mechatronics technologies, and automation and control systems.

31. **Electronics & Instrumentation Engineer:** Engineers who are responsible for designing, developing, installing, managing and maintaining equipment which is used to monitor and control engineering systems, machinery and processes.

32. **Electronics Engineer:** Electronics engineers work on federal electronic devices and systems, including satellites, flight systems, radar and sonar systems, and communications systems.

33. **Environmental Engineer:** Environmental Engineers use principles of biology and chemistry to develop solutions to environmental problems. These workers are involved in matters such as recycling, waste disposal, water and air pollution control and public health issues.

34. **Food Technologists:** Food technologists research and develop new food and beverage products and/or improve the quality of existing products. They may also develop or improve the processing, packaging, storage, and safety of food in line with government and industry standards.

35. **Geohydrologist:** An expert who studies the movement, action, and effects of water, also called fluid dynamics.

36. **Geologists:** A geologist studies the composition, structure, and other physical attributes of the earth, including rocks and minerals. They use physics, mathematics, and geological knowledge in exploration for oil, gas, minerals, or underground water.

37. **Hydrogeologist:** An expert who studies the distribution, flow and quality of water underground (as opposed to hydrologists who are primarily concerned with surface water).

38. **Industrial Engineer:** Industrial engineers find ways to eliminate wastefulness in production processes. They devise efficient systems that integrate workers, machines, materials, information, and energy to make a product or provide a service.

39. **Instrumentation Engineer:** Instrumentation engineers are responsible for planning, installing, monitoring and maintaining control systems and machinery within manufacturing environments. They typically work with control processes that use sensors to provide feedback.

40. **Leather Technologists:** Leather technicians are responsible for the process of turning animal products into leather. Technicians in small tanneries are involved in a variety of processes whereas those in larger tanneries may concentrate on one particular area.

41. **Manufacturing Technologists:** Manufacturing technologists develop tools, implement designs, or integrate machinery, equipment, or computer technologies to ensure effective manufacturing processes, recommend technical design or process changes to improve efficiency, quality, or performance.

42. **Marine Engineer:** Marine engineers design and oversee testing, installation, and repair of marine apparatus and equipment, conduct analytical, environmental, operational, or performance studies in order to develop designs for products, such as marine engines, equipment, and structures.

43. **Materials Science Engineer:** Materials engineers work with metals, ceramics, and plastics to create new materials. Materials engineers develop, process, and test materials used to create a range of products, from computer chips and aircraft wings to golf clubs and biomedical devices.

44. **Mechanical Engineer:** Mechanical engineers design power-producing machines such as electric generators, internal combustion engines, and steam and gas turbines, as well as power-using machines, such as refrigeration and air-conditioning systems.

45. **Metallurgical Engineer:** Metallurgists develop and manufacture metal items and structures that range from tiny precision-made components to huge

engineering parts. Metallurgists usually specialize in a specific area such as process, chemical or structural metallurgy.

46. **Meteorologist :** Meteorologists study the weather and atmosphere and use scientific research and mathematical models to predict patterns and forecast changes in weather conditions.

47. **Mineral Engineer:** Mineral engineers have strong industrial and research interest in underground and surface mining for coal, oil shales, metals, gold and industrial minerals and in mineral processing.

48. **Mining Engineer:** Mining and geological engineers typically design open-pit and underground mines, supervise the construction of mine shafts and tunnels and devise methods for transporting minerals to processing plants.

49. **Naval Architecture Engineer:** A Naval Architect is a professional engineer who is responsible for the design, construction and repair of ships, boats, other marine vessels and offshore structures, both civil and military, including: Merchant ships - Oil/Gas Tankers, Cargo Ships, Cruise Liners, etc.

50. **Naval Officer:** Naval officers work in a specific career field within the Navy, such as aviation, healthcare, technology, engineering, law, safety services, or education.

51. **Nephologist:** An expert who scientifically studies clouds.

52. **Nuclear Engineer:** Nuclear engineers research and develop the processes, instruments, and systems used to derive benefits from nuclear energy and radiation. Many of these engineers find industrial and medical uses for radioactive materials—for example, in equipment used in medical diagnosis and treatment.

53. **Oceanographers:** Biological oceanographer examines plants, microbes and animals. Physical oceanographers study attributes of the ocean like temperature, waves, currents and tides.

54. **Ontologist:** An expert of Ontology. Ontology is essentially the study of things, how they relate to other things, and what those things are called. An Ontologist is a creator of languages. Also known as a language engineer.

55. **Optical Engineer:** Optical engineers design precision optical systems for cameras, telescopes, or lens systems. They determine the required specifications and make adjustments to calibrate and fine-tune optical devices. They also design and develop circuitry and components for devices that use optical technology.

56. **Paint Technologists:** An expert in the study of the various ingredients of paint: resin, polymers, pigments etc. that are used in making paint.

57. **Palaeoclimatologist:** An expert in the study of changes in climate taken on the scale of the entire history of Earth.

58. **Petroleum Engineer:** Petroleum engineers revolve around the production of oil and gas. When a new reservoir is located, petroleum engineers analyze it to determine whether it can be profitably exploited. If so, they create a drilling and extraction plan to pump out the oil or gas.

59. **Physicist:** A scientist who has specialized knowledge in the field of physics, which encompasses the interactions of matter and energy at all length and time scales in the physical universe.

60. **Pilot:** An aircraft pilot or aviator is a person who controls the flight of an aircraft by operating its directional flight controls.

61. **Planetologist:** An expert in the study of the origin, composition, and distribution of matter in the planets.

62. **Plastic Engineering:** Plastics engineers engage in the processing, designing, development, and manufacturing of plastic products.

63. **Plastic Technologists:** Plastic technician's primary job is to set up, monitor and troubleshoot plastic injection-molding machines. This requires specialized knowledge of materials, specific tools, and equipment.

64. **Polymer Engineer:** Polymer engineers work primarily in the field of plastics development. They may help develop new plastics or assist in the testing and evaluation of products. Polymer engineers may be expected to maintain a laboratory or oversee other employees in working on a product or process.

65. **Production Engineer:** Production engineers work in the sphere of manufacturing, overseeing the production of goods in many industries at factories or plants. Their main job is to ensure that all products are manufactured with utmost efficiency and quality, according to planned protocols using the appropriate technology.

66. **Pulp and Paper Technologist:** Specialists in the field of chemical engineering which involves the study of the processes required for the conversion of raw materials such as wood, into pulp and paper products.

67. **Robotics Engineer:** Robotics engineers design, test, and build robots that are productive and safe to operate as well as economical to purchase and maintain. These engineers use computer-aided design and drafting, and computer-aided manufacturing (CADD/CAM) systems to perform their tasks.

68. **Sales Engineer :** Sales engineers essentially involves in translating and explaining highly complex technical information to customers and clients, focusing on revealing how a product or piece of equipment can solve specific problems.

69. **Scientist:** A scientist is someone who conducts scientific research to advance knowledge in an area of interest.

70. **Selenologist:** An expert in the study of nature and origin of the physical features of the moon.

71. **Structural Engineer:** A structural engineer analyzes and designs the gravity support and lateral force resistance of buildings, bridges, and other structures.

72. **Terminal Operations Manager:** Airport operations managers communicate directly with pilots, terminal tenants, air traffic control tower personnel,

emergency crews and the public. The job requires the professional to enforce city, country and state ordinances and laws to maintain a smooth running facility.

73. Textile Engineer: Experts who deal with the application of scientific and engineering principles to the design and control of all aspects of fiber, textile, and apparel processes, products, and machinery.

74. Ufologist: An expert in the study of reports, visual records, physical evidence, and other phenomena related to unidentified flying objects.

75. Volcanologist: A geologist who studies the processes involved in the formation and eruptive activity of volcanoes and their current and historic eruptions, known as volcanology.

Qualities required in the Candidate who wishes to pursue Engineering

- Excellent Academic Orientation.
- Good with Mathematical, Mechanical and Problem Solving Skills.
- Contain High Scientific Aptitude.
- Should be good with Logic and Analysis.
- Ability to work in a Team.
- Curious in knowing how machines work.
- Ability to spend long hours with books or computers.

Degrees Available in Engineering

Degree Nomenclature	Level	Duration	Eligibility
B. Tech. (Bachelor of Technology)	Bachelor	4 year	10+2 with PCM
B. E. (Bachelor of Engineering)	Bachelor	4 year	10+2 with PCM
B.S. (Bachelor of Science)	Bachelor	4 year	10+2 with PCM
B. F. Tech. (Bachelor of Fashion Technology)	Bachelor	4 year	10+2 with PCM
Dual Programs in Engineering (B.Tech. + M.Tech.)	Master	5 year	10+2 with PCM
Dual Degree B.S.-M.S. (Bachelor of Sc. & Master of Sc.)	Master	5 year	10+2 with PCM
Integrated M.Tech. (Integrated Master of Technology)	Master	5 year	10+2 with PCM
M. Tech. (Master of Technology)	Master	2 year	BE / B.Tech.
ME (Master of Engineering)	Master	2 year	BE / B.Tech.
M. Phil. (Master of Philosophy)	Pre Doctoral	1.5 year	Master's
Ph. D. / D. Phil. (Doctor of Philosophy)	Doctoral	2 year +	Master's
D. Sc. (Doctor of Science)	Post Doctoral	1 Year +	Ph. D.

Career Prospects after Bachelor of Engineering/Technology

Higher Studies in Management or Technical Field: After graduation, the next step is getting a masters degree like M.Tech, MBA, M.S etc. And after that if one is still enthusiastic, then they can go for a Ph.D.

Indian Civil Services: The Civil Services Examination is used for recruitment for many Indian administrative bodies. It has three stages – Civil Services Aptitude test (CSAT), a main exam, and an interview – and is known for being extremely challenging. Any Graduate can appear for this exam. One can choose to be an Indian Administrative Services, Indian Police Services, Indian Foreign Services or Indian Revenue Services officer. Other services may also include Finance, Post and Telegraph, Secretariat etc.

The Indian Administrative Service (IAS), Indian Foreign Service (IFS), Indian Police Service (IPS) is the top ranking jobs. Other services, includes Finance, Post and Telegraph, Revenue, Secretariat etc.

Indian Engineering Services: Indian Engineering Services (IES/ES) are the Technical Services that meet the technical and managerial functions of the Government of India. A combined competitive examination is conducted by the Union Public Service Commission (UPSC); for recruitment to the Indian Engineering Services (IES) in the month of June.

Work with Technical Company: Nearly every industry today relies on data, whether it is data about their clients or the success of their product. To work in the Technical Field, you should have this expertise - Programming languages, Common operating systems, Software proficiency, Technical writing, Project management and Data analysis.

Start own Business/Technical Venture: Skilled based Business after Graduation in your particular area of interest. After Engineering you can open your own Production Unit, Ancillary Unit or any Factory operating on assembly line Etc.

Research & Academics: A desire to help mold the next generation of engineers motivates engineers to move into academic careers. Overseeing research activities,

manage laboratories, and mentor students. They also write and publish books and technical papers about engineering of their Specializations.

Indian Armed Forces: A graduate can join through the Combined Defense Services examination as a regular/short service commissioned officer. Training for regular commissioned officers is carried out at Indian Military Academy, Dehradun, known as the cradle of Military leadership. Those desirous of joining the Short Service Commission get trained at Officer's Training Academy at Chennai and serve for a period of five years. On completion of this term he can either resign or opt for an extension for five years or a permanent commission.
Engineering graduates can join in the pre-final or that final year through the University Entry Scheme or after completion of graduation through Technical Graduate Scheme without any written examination, by appearing before the Service Selection Board. In both the cases the candidate gets an ante-date seniority of two years and gets commissioned as a captain.

Merchant Navy: One can join the merchant navy from age 16 onwards as an officer cadet or marine apprentice and train as a deck rating. You will at least require four GCSEs (grades A-C), or equivalent qualifications. These should include English, Mathematics and Physics (or combined science).

Banking Job: Many reputed government exams like IBPS, SBI and RBI bank exams emphasize on the knowledge of banking and business. Banking is one of the fastest growing industry verticals of the flourishing Indian economy.

Indian Railways: Indian Railways stands to be the largest employers in the nation and recruitment is made by the Railway Recruitment Board (RRB).

Computer / IT Job: Become a consultant or work in Software Firms, Application Customization & Development.

Branches / Specializations BE / B.Tech. in

1. **Aerospace:** Aerospace engineering is the primary field of engineering concerned with the development of aircraft and spacecraft. It has two major and overlapping branches: aeronautical engineering and astronautical engineering.

2. **Aeronautical:** Designing aircraft and propulsion systems and in studying the aerodynamic performance of aircraft and construction materials. The branch of engineering concerned with the design, production, and maintenance of aircraft.

3. **Agricultural & Food:** Agricultural engineering, sometimes known as biological engineering, is a diverse engineering discipline, which mainly focuses on dealing with the design of farm machinery, the location and planning of farm structures, farm drainage, soil management and erosion control, water supply and irrigation, rural electrification, and the processing of farm products.

4. **Aircraft Maintenance:** Aircraft Maintenance Engineering Course is related to maintenance and repair of aircrafts. Candidate requires a lot of passion and skills to do AME Course. Aircraft Maintenance Engineer may make repairs, troubleshoot problem, conduct inspections and make upgrades to aircrafts.

5. **Architectural:** Applying science and technology to the real world by designing buildings that enhance our standard of living and improve our quality of life. Architectural engineering, also known as building engineering, is a discipline that deals with the technological aspects and multi-disciplinary approach to planning, design, construction and operation of buildings, such as analysis and integrated design of environmental systems (energy conservation, HVAC, lighting, acoustics, vertical and horizontal transportation), structural systems, behavior and properties of building components and materials, and construction management.

6. **Automobile:** Automobile Engineering is a branch of engineering which deals with designing, manufacturing and operating automobiles. It is a segment of

vehicle engineering which deals with motorcycles, buses, trucks, etc. It includes mechanical, electrical, electronic, software and safety elements.

7. **Biochemical:** Biochemical engineering is a branch of chemical engineering which applies technological advancements to biological materials. Biochemical engineers combine knowledge of biology, chemistry and engineering to create products from raw materials and develop the processes for achieving this.

8. **Biological Sciences:** Designing systems and products, such as artificial organs, artificial devices that replace body parts, and machines for diagnosing medical problems. Install, adjust, maintain, repair, or provide technical support for biomedical equipment.

9. **Biomedical:** Biomedical Engineering is concerned with the development and manufacturing of prostheses, medical devices, diagnostic devices, drugs and other therapies. This unique field encompasses bio-instrumentation, bio-materials, bio-mechanics, medical imaging, genetic engineering, orthopedic surgery, cellular and tissue engineering.

10. **Biotechnology:** Biotechnology engineering is the study, research and development of bio-organism, micro-organism and cell functions in living beings. Biotechnology covers different fields of work like agriculture, disease research, eco-conservation, fertilizers, vaccines, energy production and animal husbandry.

11. **Ceramic:** Ceramic engineering is the science and technology of creating objects from inorganic, non-metallic materials. This is done either by the action of heat, or at lower temperatures using precipitation reactions from high-purity chemical solutions.

12. **Chemical:** Chemical engineering is the branch of engineering that deals with chemical production and the manufacture of products through chemical processes. This includes designing equipment, systems and processes for refining raw materials and for mixing, compounding and processing chemicals to make valuable products.

13. **Civil:** Civil Engineering involves the development of infrastructure such as buildings, railways, roads construction, bridges and general construction project management. Civil Engineers also play an important role in rebuilding projects, such as in the event of a natural disaster.

14. **Computer Science:** Computer engineering deals with the design and implementation of distributed environments, making multimedia such as text, speech, music, videos and other sources into a stream of data, Very Large Scale Integrated (VLSI) systems which involve tools, properties and design of micro-miniaturized devices, and reliable computing and advanced architectures for parallel computing.

15. **Dairy Technology:** Production, Processing, Storage, Quality Control, Packaging, Distribution and Transportation of dairy products by implying the science of bacteriology, nutrition and biochemistry.

16. **Electrical:** Electrical engineering is a field which covers everything related to electrical devices, systems and the use of electricity. Modern electrical engineering also covers the use of electricity and electromagnetism for the generation, transmission, processing, storage, conversion and control of information and energy.

17. **Electronics:** Working on federal electronic devices and systems, including satellites, flight systems, radar and sonar systems, and communications systems.

18. **Electronics & Communication:** Conceptualizing, designing, testing and overseeing the manufacturing of communications and broadcast systems and integrating electronics and communications into any system they develop.

19. **Electronics & Electrical:** Dealing with the engineering problems, opportunities and needs of electrical, electronics, computer, telecommunication systems and related industries.

20. **Electronics & Instrumentation:** Focusing on the principles and operations of measuring instruments used in the design and configuration of automated systems.

21. **Engineering Physics:** Solving complex technological problems in fields such as nuclear science, aerospace and computing and to integrate applied physics with a specialized engineering.

22. **Engineering Science:** Applying acquired math, science and engineering skills to solve real-world engineering problems and ability to identify, formulate and solve multi-disciplinary engineering problems.

23. **Environmental:** Engineering involves the study of science and engineering to improve our environment. This includes the air we breathe, food we consume, and water. Environmental Engineers also study the environmental impact humans have on the planet, including pollution as a result of development and manufacturing processes.

24. **Fire Technology:** Fire Technology is the study of the organization and function of fire prevention and suppression techniques; fire behavior, combustible materials, extinguishing agents, hazardous and toxic material; fire protection techniques and systems; fire command and fire management (supervision).

25. **Food & Nutrition:** Exploring field of science that overlaps with the work of food scientists and food technologists and focusing on packaging techniques, processing, and improving food quality.

26. **Food Technology:** Food technology is the application of food science to the selection, preservation, processing, packaging, distribution, and use of safe food.

27. **Genetic:** Genetic engineering, also called genetic modification or genetic manipulation, is the direct manipulation of an organism's genes using biotechnology.

28. **Geoinfomatics:** Geoinformatics has at its core in the technologies supporting the processes of acquiring, analyzing and visualizing spatial data. Both geomatics and geoinformatics include and rely heavily upon the theory and practical implications of geodesy.

29. **Industrial & Systems:** Integrating people, materials, information, equipment, and energy to design, implement, and improve systems and improve processes by making them more efficient, better, and safer.

30. **Instrumentation:** Planning, installing, monitoring and maintaining control systems and machinery within manufacturing environments and work with control processes that use sensors to provide feedback.

31. **Leather Technology:** Leather Technology is a branch of engineering which deals with synthesis, production and refining of leather so that it can be put into efficient use. It also deals with the synthesis of artificial leather and its efficient use to make commercial goods. It is comparatively a new branch which is gaining importance in industrial sector.

32. **Manufacturing Science:** Designing and operation of integrated systems for the production of high-quality, economically competitive products which include computer networks, robots, machine tools, and materials-handling equipment.

33. **Marine:** Marine engineering is a branch of Engineering that deals with nautical architecture and science. The term 'Marine Engineering' is meant for research conducted in oceans and coastal or inland waters connected to the sea. Marine Engineering courses deal with construction and maintenance of ships and other sailing vessels.

34. **Material Science:** Working with metals, ceramics, and plastics to create new materials and develop, process, and test materials used to create a range of products, from computer chips and aircraft wings to golf clubs and biomedical devices.

35. **Mathematics & Computing:** Working with teams of mathematicians, engineers, and physicists to develop optimal systematic strategies for trading stock and

write programs, conduct research, perform daily statistical analysis and solve problems to optimize trading strategies.

36. **Mechanical:** Designing power-producing machines such as electric generators, internal combustion engines, and steam and gas turbines as well as power-using machines, such as refrigeration and air-conditioning systems.

37. **Mechatronics:** A blend of mechanical engineering and electronics engineering, Mechatronics, or Mechatronics Engineering, is an emerging area for hybrid engineers. Nearly all mechanical equipment in this day and age is operated with a mix of electronics and software, all based on computers and technology.

38. **Metallurgical:** Working with a variety of metals to design new products, refine the collection process, and create different blends of metal to suit specific needs.

39. **Mineral:** Resourse Mineral Resource Engineering concentrates on the technical, environmental and economic aspects of the extraction and processing of the earth's mineral resources.

40. **Mining:** Mining engineering is an engineering discipline that applies science and technology to the extraction of minerals from the earth. Mining engineering is associated with many other disciplines, such as mineral processing, Exploration, Excavation, geology, and metallurgy, geotechnical engineering and surveying.

41. **Mining Machinery:** Mining machinery engineering is an interdisciplinary branch of engineering that applies the principles of mechanical engineering, electrical engineering and mining engineering for analysis, design, manufacturing and maintenance of mining equipment.

42. **Naval Architecture:** Designing, construction and repair of both civil and military ships, boats, other marine vessels and offshore structures.

43. **Ocean:** Ocean engineering is a field of study that can be vaguely defined as an advanced part of the other marine technology studies like maritime engineering or offshore engineering or marine electronic technology.

44. **Petrochemical:** Petrochemical Engineering deals with the chemical processes involved in turning the raw materials of crude oil and petroleum into useful products such as food, clothes, fertilizers and plastics.

45. **Petroleum:** Designing and developing methods for extracting oil and gas from deposits below the Earth's surface.

46. **Plastic:** Encompassing the processes, design, development, and manufacturing of plastics products.

47. **Polymer:** Polymer science or macromolecular science is a subfield of materials science concerned with polymers, primarily synthetic polymers such as plastics and elastomers. The field of polymer science includes researchers in multiple disciplines including chemistry, physics, and engineering.

48. **Production:** Production engineering is a combination of manufacturing technology, engineering sciences with management science. A production engineer typically has a wide knowledge of engineering practices and is aware of the management challenges related to production.

49. **Robotics:** A robotics engineering degree has a primary focus on automation and the use of machines to assist with repetitive tasks such as those found in manufacturing.

50. **Textile:** Designing, creating processes and procedures for, and work with or invent equipment that makes fabric, yarn, and fibre.

ENGINEERING and TECHNOLOGY Entrance Exams

Exams for Engineering and Technology	Selection Process & Test Pattern	Questions (Marks)	Tentative Schedule & Remarks
JEE Main- Paper 1 For BE/B.Tech at NIT's IIT's, IIIT's & other GFTI's **Conducted by:** NTA www.jeemain.nic.in **Time:** 180 Minutes **Timing:** 930 - 1230 Hrs. **Mode:** Computer Based	Maths Physics Chemistry **Total**	30 (120) 30 (120) 30 (120) **90 (360)**	**Forms Out:** Slot-1: 1st Sep. 2018, Slot-2: 8th Feb. 2019 **Last Date:** Slot-1: 30th Sep. 2018, Slot-2: 7th Mar. 2019 **Test Date:** Slot 1: 6th-20th Jan. , Slot 2: 6th-20th April 2019 **Marking:** +4 / -1 **Forms Available:** Online **Eligibility:** Physics and Mathematics as compulsory subjects along with one of the Chemistry/ Biotechnology/Biology/ Technical Vocational subject. Maximum three attempts allowed
JEE Advanced For Bachelor's or Integrated Master's Dual Degree in Engineering at IIT's **Conducted by:** Joint Admission Board (JAB) www.jeeadv.ac.in **Time:** 180 + 180 Minutes **Timing:** 900-1200 & 1400-1700 Hrs. **Mode:** Computer Based	Maths Physics Chemistry **Paper-1 (Same pattern for All 3 Subjects Section I = Physics, Section II = Chemistry, Section III = Maths, Each section has 3 Parts)** Part I Part II Part III **Total** **Paper-2 (Same Pattern as Paper-I)** **Gross Total**	18 (60) 18 (60) 18 (60) 6 (24) 8 (24) 4 (12) 18 (60x3=180) **108 (360)**	**Form Out:** After JEE Mains Results. 1 week window around May 1st Week 2019 **Last Date:** Open For About 7 Days till May 2nd Week 2019 **Test Date:** 3rd Week of May 2019 to be announced later **Marking:** Variable Negative **Forms Available:** Online **Eligibility:** Within 224000 Rank in JEE Main as per 2018 Notification. Maximum two consecutive attempts allowed.
BITSAT For BE/B.Pharm at Pilani, Goa, Hyderabad and Dubai campus www.bitsadmission.com **Time:** 180 Minutes 2 Slots on each day **Timing:** 900-1200 & 1400-1700 Hrs. **Mode:** Computer Based	Physics Chemistry English Logical Reasoning Maths/ Bio (for B. Pharm) **Total**	40 (120) 40 (120) 15 (45) 10 (30) 45 (135) **150 (450)**	**Form Out:** 7th Jan 2019 **Last Date:** 20th March 2019 **Test Date:** 16th to 26th May 2019 **Marking:** +3/-1 **Forms Available:** Online **Eligibility:** Min 75% aggregare marks in 12th with 60% in each subject of Physics, Chemistry and Mathematics. Direct Admission to 1st Rank holder of any board.

VITEEE For B.Tech. at VIT Vellore, Chennai, Bhopal and Amaravati Campus www.vit.ac.in **Time:** 150 Minutes **Timing:** I session – 900-1130 Hrs. II session - 1230–1500 Hrs. III session - 1600–1830 Hrs. **Mode:** Computer Based	Physics Chemistry Maths/Biology English **Total**	40 (40) 40 (40) 40 (40) 05 (05) **125 (125)**	**Form Out:** 28th October 2018 **Last Date:** 28th Feb 2019 **Test Date:** 10th to 21st April 2019 **Marking:** +1/ 0 **Forms Available:** Online **Eligibility:** 60% aggregate in 12th. Physics, Chemistry, Mathematics and English are eligible for all B.Tech Programs and Physics, Chemistry, Biology & English are eligible for B.Tech. Biotechnology, B.Tech. Bioengineering, B. Tech. CSE (Spl. in Bioinformatics) and ECE with Spl. in Biomedical Engineering program.
SITEEE For B.Tech at Symbiosis Institute of Technology-Pune www.set-test.org **Time:** 150 Minutes **Timing:** 1430 to 1700 Hrs. **Mode:** Computer Based	Physics Chemistry Maths **Total**	25 (50) 25 (50) 50 (100) **100 (200)**	**Form Out:** 24th Jan, 2019 **Last Date:** 15th April, 2019 **Test Date:** 4th May, 2019 **Marking:** +2/ 0 **Forms Available:** Online **Eligibility:**Pass class with 45% in Physics & mathematics as compulsory subjects along with one of the Chemistry/ Biotechnology/Biology/ Technical Vocational subject
SRMJEEE (UG) For B.Tech. at SRM Group of Institutes at Chennai, Amaravati and Sonipat Campus www.srmuniv.ac.in **Time:** 150 Minutes **Timing:** As per the Admit Card **Mode:** Computer Based	Physics Chemistry Maths/ Biology (for Health Science) **Total**	35 (105) 35 (105) 35 (105) **105 (315)**	**Form Out:** 27th October 2018 **Last Date:** 31st March 2019 **Test Date:** 15th April to 25th April **Marking:** +3/-1 **Forms Available:** Online **Eligibility:** Pass Class in 12th with Physics, Chemistry and Mathematics / Biology
NPAT For B.Tech., MBA Tech., across Narsee Monjee Mumbai, Shirpur, Indore and Navi Mumbai Campus www.npat.in **Time:** 120 Minutes **Timing:** 1000-1200 Hrs. **Mode:** Computer Based	Physics Chemistry Maths Logical intelligence Language Proficiency **Total**	30 (30) 30 (30) 30 (30) 20 (20) 10(10) **120 (120)**	**Forms Out:** 22nd Jan 2019 **Last Date:** 29th April 2019 **Test Date:** 11th and 12th of May 2019 **Marking:** +1/-0 **Forms Available:** Online **Eligibility:** 10+2 any Stream with Mathematics or Statistics as a compulsory subject in 11th and 12th.
MET For B.Tech. at Manipal Institute of Technology www.manipal.edu **Time:** 150 Minutes **Timing:** As per the Admit Card **Mode:** Computer Based	Physics Chemistry Maths English & Gen. Aptitude **Total**	50 (50) 50 (50) 70 (70) 30 (30) **200 (200)**	**Forms Out:** 1st December 2018 **Last Date:** 15th Mar 2019 **Test Date**: Multiple Dates as per application on or before 2nd Week of May **Marking:** +1/-0 **Forms Available:** Online **Eligibility:** 50% in 12th with Physics, Mathematics and any one Optional

KEA-CET For B.E. & B.Tech. in all Govt. & Affiliated Engineering Colleges in Karnataka www.kea.kar.nic.in **Time:** 240 Minutes, 80 Minutes for Each **Timing:** Day-1 1430 to 1550 Hrs. Day-2 1030-1150 & 1430 to 1550 Hrs. **Mode:** Pen & Paper Based	Maths Physics Chemistry **Total**	60 (60) 60 (60) 60 (60) **180 (180)**	**Forms Out:** 1st Feb 2019 **Last Date:** 26th Feb 2019 **Test Date:** 3rd Week of April **Marking:** +1/-0 **Forms Available:** Online **Eligibility:** 45% in 12th with Physics, Mathematics and Chemistry
MHT-CET For B.E. & B.Tech. in all Govt. & Affiliated Engineering Colleges in Maharashtra www.dtemaharashtra.gov.in **Time:** 90 Minutes for each Paper 1 & 2 **Timing:** As per the Admit Card **Mode:** Computer Based	Paper-1 Maths Paper-2 Physics Chemistry **Total**	50 (100) 50 (50) 50 (50) **150 (200)**	**Forms Out:** 1st Jan 2019 **Last Date:** 23rd March 2019 **Test Date:** 2nd May to 13th May 2019 **Marking:** Differential for different Subjects **Forms Available:** Online **Eligibility:** 50% in 12th with Physics, Mathematics and Chemistry
KIITEE For all B. Tech. courses at KIIT University Bhubaneshwar www.kiit.ac.in **Time:** 180 Minutes **Timing:** As per the Admit Card **Mode:** Computer Based	Maths Physics Chemistry **Total**	40 (40) 40 (40) 40 (40) **120 (120)**	**Forms Out:** 16th Nov 2018 **Last Date:** 25th March 2019 **Test Date:** 15th to 25th April **Marking:** +1/-0 **Forms Available:** Online **Eligibility:** 60% in 12th with Physics, Mathematics and Chemistry
AP EAMCET For all B. Tech. courses across engineering colleges in Andhra Pradesh www.jntuh.ac.in **Time:** 180 Minutes **Timing:** 1000-1300 or 1430- 1730 Hrs. **Mode:** Computer Based	Maths Physics Chemistry **Total**	80 (80) 40 (40) 40 (40) **160 (160)**	**Forms Out:** 26th Feb, 2019 **Last Date:** 27th March, 2019 **Test Date:** 20-23 April, 2019 **Marking:** +1/-0 **Forms Available:** Online **Eligibility:** 60% in 12th with Physics, Mathematics and Chemistry.
WBJEE For all B. Tech. courses across engineering colleges in West Bengal www.wbjeeb.in **Time:** 240 Minutes **Timing:** 1100-1300 & 1400-1600 Hrs. **Mode:** Pen and Paper Based	Maths Physics Chemistry **Total**	75 (100) 40 (50) 40 (50) **155 (200)**	**Forms Out:** 26th Dec 2018 **Last Date:** 22nd Jan 2019 **Test Date:** 26th May 2019 **Marking:** Differential Marking with 25% Negative **Forms Available:** Online **Eligibility:** 45% in 12th with Physics, Mathematics and Chemistry

Top 23 IITs (Indian Institute of Technology) with their Ranking and Year of Establishment

Admissions to all IITs (Indian Institute of Technology Colleges) in India is based on JEE-Advanced

Rank	Best IITs (Indian Institute of Technology) in India	Year of Establishment	Website
Rank 1	Indian Institute of Technology (IIT), Bombay	1958	www.iitb.ac.in
Rank 2	Indian Institute of Technology (IIT), Delhi	1963	www.iitd.ac.in
Rank 3	Indian Institute of Technology (IIT), Guwahati	1994	www.iitg.ernet.in
Rank 4	Indian Institute of Technology (IIT), Kanpur	1959	www.iitk.ac.in
Rank 5	Indian Institute of Technology (IIT), Kharagpur	1951	www.iitkgp.ac.in
Rank 6	Indian Institute of Technology (IIT), Madras	1959	www.iitm.ac.in
Rank 7	Indian Institute of Technology (IIT), Roorkee	1847	www.iitr.ernet.in
Rank 8	Indian Institute of Technology (Banaras Hindu Univ.), Varanasi	1919	www.iitbhu.ac.in
Rank 9	Indian Institute of Technology (Indian School of Mines), Dhanbad	1926	www.iitism.ac.in
Rank 10	Indian Institute of Technology (IIT), Bhubaneshwar	2008	www.iitbbs.ac.in
Rank 11	Indian Institute of Technology (IIT), Patna	2008	www.iitp.ac.in
Rank 12	Indian Institute of Technology (IIT), Gandhi Nagar	2008	www.iitgn.ac.in
Rank 13	Indian Institute of Technology (IIT), Jodhpur	2008	www.iitj.ac.in
Rank 14	Indian Institute of Technology (IIT), Hyderabad	2008	www.iith.ac.in
Rank 15	Indian Institute of Technology (IIT), Ropar	2008	www.iitrpr.ac.in
Rank 16	Indian Institute of Technology (IIT), Indore	2009	www.iiti.ac.in
Rank 17	Indian Institute of Technology (IIT), Mandi	2009	www.iitmandi.ac.in
Rank 18	Indian Institute of Technology (IIT), Palakkad	2015	www.iitpkd.ac.in
Rank 19	Indian Institute of Technology (IIT), Tirupati	2015	www.iittp.ac.in
Rank 20	Indian Institute of Technology (IIT), Jammu	2016	www.iitjammu.ac.in
Rank 21	Indian Institute of Technology (IIT), Goa	2016	www.iitgoa.ac.in
Rank 22	Indian Institute of Technology (IIT), Bhilai	2016	www.iitbhilai.ac.in
Rank 23	Indian Institute of Technology (IIT) Dharwad	2016	www.iitdh.ac.in

Top 31 NITs (National Institute of Technology) with their Ranking and Year of Establishment

Admissions to all NITs (National Institute of Technology) is based on JEE-Main

Rank	Best NITs (National Institute of Technology) in India	Year of Establishment	Website
Rank 1	Motilal Nehru National Institute of Technology, Allahabad	1961	www.mnnit.ac.in
Rank 2	Maulana Azad National Institute of Technology, Bhopal	1960	www.manit.ac.in
Rank 3	National Institute of Technology, Calicut	1961	www.nitc.ac.in
Rank 4	National Institute of Technology, Hamirpur, H.P.	1986	www.nith.ac.in
Rank 5	National Institute of Technology, Warangal, A.P.	1959	www.nitw.ac.in
Rank 6	National Institute of Technology, Raipur, Chhattisgarh	1956	www.nitrr.ac.in
Rank 7	National Institute of Technology, Patna, Bihar	1886	www.nitp.ac.in
Rank 8	National Institute of Technology, Jamshedpur, Jharkhand	1960	www.nitjsr.ac.in
Rank 9	National Institute of Technology, Surathkal, Karnataka	1960	www.nitk.ac.in
Rank 10	National Institute of Technology, Durgapur, West Bengal	1960	www.nitdgp.ac.in
Rank 11	Visvesvaraya National Institute of Technology, Nagpur	1960	www.vnit.ac.in
Rank 12	National Institute of Technology, Rourkela, Orissa	1961	www.nitrkl.ac.in
Rank 13	Malaviya National Institute of Technology, Jaipur	1963	www.mnit.ac.in
Rank 14	National Institute of Technology, Kurukshetra, Haryana	1963	www.nitkkr.ac.in
Rank 15	Sardar Vallabhbhai National Institute of Tech., Surat, Gujarat	1961	www.svnit.ac.in
Rank 16	National Institute of Technology, Hazaratbal, Srinagar, J&K	1960	www.nitsri.net
Rank 17	National Institute of Technology, Silchar, Assam	1967	www.nits.ac.in
Rank 18	National Institute of Technology, Agartala, Tripura	1965	www.nita.ac.in
Rank 19	National Institute of Technology, Tiruchirapalli, Tamil Nadu	1964	www.nitt.edu
Rank 20	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	1987	www.nitj.ac.in
Rank 21	National Institute of Technology, Delhi	2010	www.nitdelhi.ac.in
Rank 22	National Institute of Technology, Manipur	2010	www.nitmanipur.ac.in
Rank 23	National Institute of Technology, Sikkim	2010	www.nitsikkim.ac.in
Rank 24	National Institute of Technology, Srinagar (Garhwal), Uttarkhand	2010	www.nituk.ac.in
Rank 25	National Institute of Technology, Puducherry	2010	www.nitpy.ac.in

Rank 26	National Institute of Technology, Nagaland	2010	www.nitnagaland.ac.in
Rank 27	National Institute of Technology, Meghalaya	2010	www.nitm.ac.in
Rank 28	National Institute of Technology, Goa	2010	www.nitgoa.ac.in
Rank 29	National Institute of Technology, Yupia, Arunachal Pradesh	2010	www.nitap.in
Rank 30	National Institute of Technology, Mizoram, Chaltlang, Aizawl	2010	www.nitmz.ac.in
Rank 31	National Institute of Technology, Andhra Pradesh	2015	www.nitandhra.ac.in

Top 24 IIITs (Indian Institute of Information Technology) with their Ranking and Year of Establishment

Admissions to all IIITs (Indian Institute of Information Technology) is based on JEE-Main

Rank	Best IIITs (Indian Institute of Information Technology) in India	Year of Establishment	Website
Rank 1	Atal Bihari Vajpayee Indian Institute of Information Technology and Management, Gwalior	1997	www.iiitm.ac.in
Rank 2	Indian Institute of Information Technology, Allahabad	1999	www.iiita.ac.in
Rank 3	PDPM Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur	2005	www.iiitdmj.ac.in
Rank 4	Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai	2007	www.iiitdm.ac.in
Rank 5	Indian Institute of Information Technology, Chittoor, Sri City	2013	www.iiits.ac.in
Rank 6	Indian Institute of Information Technology, Guwahati	2013	www.iiitg.ac.in
Rank 7	Indian Institute of Information Technology, Vadodara	2013	www.iiitvadodara.ac.in
Rank 8	Indian Institute of Information Technology, Kota	2013	www.iiitkota.ac.in
Rank 9	Indian Institute of Information Technology, Tiruchirrappalli	2013	www.iiitt.ac.in
Rank 10	Indian Institute of Information Tehnology, Kalyani, West Bengal	2014	www.iiitkalyani.edu.in
Rank 11	Indian Institute of Information Technology, Una, Himachal Pradesh	2014	www.iiitu.ac.in
Rank 12	Indian Institute of Information Technology, Sonepat	2014	www.nitkkr.ac.in
Rank 13	Indian Institute of Information Technology Design and Manufacturing, Kurnool	2015	www.iiitdmkl.ac.in
Rank 14	Indian Institute of Information Technology, Senapati, Manipur	2015	www.iiitmanipur.ac.in
Rank 15	Indian Institute of Information Technology, Lucknow	2015	www.iiitl.ac.in
Rank 16	Indian Institute of Information Technology, Kottayam, Kerala	2015	www.iiitkottayam.ac.in
Rank 17	Indian Institute of Information Technology, Dharward, Karnataka	2015	www.iiitdwd.ac.in
Rank 18	Indian Institute of Information Technology, Pune	2016	www.iiitp.ac.in

Rank 19	Indian Institute of Information Technology, Nagpur	2016	www.iiitn.ac.in
Rank 20	Indian Institute of Information Technology, Ranchi	2016	www.iiitranchi.ac.in
Rank 21	Indian Institute of Information Technology, Bhopal	2017	www.iiitbhopal.co.in
Rank 22	Indian Institute of Information Technology, Surat	2017	www.svnit.ac.in
Rank 23	Indian Institute of Information Technology, Bhagalpur	2017	www.iiitbh.ac.in
Rank 24	Indian Institute of Information Technology, Agartala	2017	www.nielit.gov.in

Top 20 GFTIs (Government Funded Technical Institutes) with their Ranking and Year of Establishment

Admissions to all GFTIs (Government Funded Technical Institutes) is based on JEE-Main

Rank	Best GFTIs (Government Funded Technical Institutes) in India	Year of Establishment	Website
Rank 1	Birla Institute of Technology, Mesra Ranchi	1955	www.bitmesra.ac.in
Rank 2	National Institute of Electronics and Information Technology, Aurangabad	1987	www.nielit.gov.in
Rank 3	Punjab Engineering College, Chandigarh	1921	www.pec.ac.in
Rank 4	Hemvati Nandan Bahuguna Garhwal University, Srinagar	1973	www.hnbgu.ac.in
Rank 5	School of Engineering & Technology,Bengal Engineering and Science University, Shibpur	1843	www.iiests.ac.in
Rank 6	National Institute of Foundry and Forge Technology Hatia, Ranchi	1966	www.nifft.ac.in
Rank 7	J.K Institute of Applied Physics and Technology, Allahabad	1949	www.jkinstitute.ac.in
Rank 8	Institute of Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur	1983	www.ggu.ac.in
Rank 9	Gurukul Kangri Vishwavidyalaya, Haridwar	1902	www.gkv.ac.in
Rank 10	Indian Institute of Crop Processing Technology, Thanjavur	1967	www.iifpt.edu.in
Rank 11	University of Hyderabad, Hyderabad	1974	www.uohyd.ac.in
Rank 12	Sant Longowal Institute of Engineering and Technology, Longowal	1991	www.sliet.ac.in
Rank 13	School of Engineering, Tezpur University, Napaam Tezpur	1994	www.tezu.ernet.in
Rank 14	Assam University, Silchar	1994	www.aus.ac.in
Rank 15	Shri Mata Vaishno Devi University Katra, J & K	1999	www.smvdu.ac.in
Rank 16	Indian Institute of Carpet Technology, Bhadohi	2001	www.iict.ac.in
Rank 17	International Institute of Information Technology, Bhubaneswar	2006	www.iiit-bh.ac.in
Rank 18	School of Engineering & Technology, Mizoram University, Aizawl	2007	www.mzu.edu.in
Rank 19	International Institute of Information Technology, Naya Raipur	2013	www.iiitnr.ac.in
Rank 20	Institute of Infrastructure Technology Research and Management,Ahmedabad	2013	www.iitram.ac.in

Top 50 Engineering Colleges (Overall) with their Ranking and Admission Process

Rank	Best Engineering Colleges in India	Admission Process	Website
Rank 1	IIT Bombay Maharashtra	JEE-Adv.	www.iitb.ac.in
Rank 2	IIT Delhi Delhi	JEE-Adv.	www.iitd.ac.in
Rank 3	IIT Kanpur Uttar Pradesh	JEE-Adv.	www.iitk.ac.in
Rank 4	IIT Kharagpur West Bengal	JEE-Adv.	www.iitkgp.ac.in
Rank 5	IIT Madras Tamil Nadu	JEE-Adv.	www.iitm.ac.in
Rank 6	IIT Roorkee Uttarakhand	JEE-Adv.	www.iitr.ernet.in
Rank 7	Indian Institute of Technology (Banaras Hindu University), Varanasi	JEE-Adv.	www.iitbhu.ac.in
Rank 8	Birla Institute of Technology and Science (BITS, Pilani) - Pilani	BITSAT	www.bits-pilani.ac.in
Rank 9	Atal Bihari Vajpayee Indian Institute of Information Technology and Management, Gwalior	Jee-Main	www.iiitm.ac.in
Rank 10	Indian Institute of Information Tehnology, Allahabad	Jee-Main	www.iiita.ac.in
Rank 11	IIIT Hyderabad	Jee-Main	www.iiit.ac.in
Rank 12	IIT Guwahati Assam	JEE-Adv.	www.iitg.ernet.in
Rank 13	Indian Institute of Technology (Indian School of Mines), Dhanbad	JEE-Adv.	www.iitism.ac.in
Rank 14	Indian Institute of Technology (IIT), Gandhi Nagar	JEE-Adv.	www.iitgn.ac.in
Rank 15	NIT Trichy Tamil Nadu	Jee-Main	www.nitt.edu
Rank 16	NIT Warangal Telangana	Jee-Main	www.nitw.ac.in
Rank 17	NIT Surathkal, Karnataka	Jee-Main	www.nitk.ac.in
Rank 18	NIT Calicut Kerala	Jee-Main	www.nitc.ac.in
Rank 19	Indian Institute of Technology (IIT), Ropar	JEE-Adv.	www.iitrpr.ac.in
Rank 20	NIT Allahabad Uttar Pradesh	JEE-Adv.	www.mnnit.ac.in
Rank 21	NIT Bhopal Madhya Pradesh	Jee-Main	www.manit.ac.in
Rank 22	NIT Surat Gujarat	Jee-Main	www.svnit.ac.in
Rank 23	Dhirubhai Ambani Institute of Information and Communication Technology	Jee-Main	www.daiict.ac.in
Rank 24	Indian Institute of Technology (IIT), Bhubaneshwar	JEE-Adv.	www.iitbbs.ac.in
Rank 25	Indian Institute of Technology (IIT), Patna	JEE-Adv.	www.iitp.ac.in

Rank 26	Indian Institute of Technology (IIT), Jodhpur	JEE-Adv.	www.iitj.ac.in
Rank 27	Indian Institute of Technology (IIT), Hyderabad	JEE-Adv.	www.iith.ac.in
Rank 28	Indian Institute of Technology (IIT), Indore	JEE-Adv.	www.iiti.ac.in
Rank 29	Indian Institute of Technology (IIT), Mandi	JEE-Adv.	www.iitmandi.ac.in
Rank 30	NIT Durgapur West Bengal	Jee-Main	www.nitdgp.ac.in
Rank 31	NIT Hamirpur Himachal Pradesh	Jee-Main	www.nith.ac.in
Rank 32	NIT Jaipur Rajasthan	Jee-Main	www.mnit.ac.in
Rank 33	NIT Jalandhar Punjab	Jee-Main	www.nitj.ac.in
Rank 34	NIT Jamshedpur Jharkhand	Jee-Main	www.iitism.ac.in
Rank 35	Birla Institute of Technology, Mesra(BIT, Mesra) - Ranchi	BITSAT	www.bitmesra.ac.in
Rank 36	Netaji Subhash Institute of Technology, Delhi Technological University	JAC Delhi	www.dtu.ac.in
Rank 37	NIT Nagpur Maharashtra	Jee-Main	www.vnit.ac.in
Rank 38	NIT Patna Bihar	Jee-Main	www.nitp.ac.in
Rank 39	NIT Raipur Chhattisgarh	Jee-Main	www.nitrr.ac.in
Rank 40	NIT Rourkela Odisha	Jee-Main	www.nitrkl.ac.in
Rank 41	NIT Srinagar Jammu and Kashmir	Jee-Main	www.nitsri.net
Rank 42	Thapar Institute of Engineering and Technology - Patiala	Jee-Main	www.thapar.edu
Rank 43	Vellore Institute of Technology(VIT) – Vellore	VITEEE	www.vit.ac.in
Rank 44	M S Ramaiah Institute of Technology - Bangalore	KEA-CET	www.msrit.edu
Rank 45	Manipal Institute of Technology – Manipal	MET	www.manipal.edu
Rank 46	Punjab Engineering College, Chandigarh	Jee-Main	www.pec.ac.in
Rank 47	PSG College of Technology – Coimbatore	Jee-Main	www.psgtech.edu
Rank 48	SRM Engineering College, SRM University - Kattankulathur	SRMJEEE (UG)	www.srmuniv.ac.in
Rank 49	Zakir Husain College of Engineering & Technology - Aligarh	Jee-Main	www.amu.ac.in
Rank 50	BMS College of Engineering – Bangalore	KEA-CET	www.bmsce.ac.in

Top 18 NIFTs (National Institute of Fashion Technology Institutes) with their Ranking and Year of Establishment

Admissions to all NIFTs is based on its own Entrance Exam

Rank	Best GFTIs (Government Funded Technical Institutes) in India	Year of Establishment	Website
Rank 1	National Institute of Fashion Technology, Delhi	1986	www.nift.ac.in
Rank 2	National Institute of Fashion Technology, Begaluru	1986	www.nift.ac.in
Rank 3	National Institute of Fashion Technology, Mumbai	1995	www.nift.ac.in
Rank 4	National Institute of Fashion Technology, Gandhinagar	1995	www.nift.ac.in
Rank 5	National Institute of Fashion Technology, Chennai	1995	www.nift.ac.in
Rank 6	National Institute of Fashion Technology, Kolkata	1995	www.nift.ac.in
Rank 7	National Institute of Fashion Technology, Hyderabad	1999	www.nift.ac.in
Rank 8	National Institute of Fashion Technology, Srinagar	1995	www.nift.ac.in
Rank 9	National Institute of Fashion Technology, Bhopal	2008	www.nift.ac.in
Rank 10	National Institute of Fashion Technology, Shillong	2008	www.nift.ac.in
Rank 11	National Institute of Fashion Technology, Bhubaneswar	2010	www.nift.ac.in
Rank 12	National Institute of Fashion Technology, Raebareli	2002	www.nift.ac.in
Rank 13	National Institute of Fashion Technology, Jodhpur	2010	www.nift.ac.in
Rank 14	National Institute of Fashion Technology, Kannur	2008	www.nift.ac.in
Rank 15	National Institute of Fashion Technology, Kangra	2009	www.nift.ac.in
Rank 16	National Institute of Fashion Technology, Patna	2008	www.nift.ac.in
Rank 17	National Institute of Fashion Technology, Panchkula	2019	www.nift.ac.in

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About the Author

Trained in Structural Engineering along with a Master's Degree in Management under his hat, Mr. Mohit Mangal is a Nationally Renowned Career Counselor and Motivational Speaker. Mr. Mohit quit his cushy job in a top FMCG Company in 2003, against much reservations and apprehensions of his peers, since he felt driven by the quest to help students find their right career path. Having found his own path the hard way around, he was equipped with the detailed know-how of the dilemmas that students face and the challenges that the very dynamic professional market throws at the student community. He felt confident about guiding them in the right direction.

Today, more than 17 years later, Mr. Mangal has delivered more than 1500 talks across India and helped more than 6 lakh students identify their right path forward. He has counseled more than 25000 students through his indigenously developed tool called "BrainMapping".

Driven by the assurance of having made substantial difference, and motivated by the zeal to surpass his own self, Mr. Mohit along with his team continues to deliver career awareness workshops, design and use Self-Assessment tools for school and college students, and offer guidance to more than 1,00,000 students each year. He also works with college students and professionals, who need help in identifying and fine tuning their Career Goals at different points in their professional life to attain even higher goals.

Mr. Mohit runs iQue Foundation for Youth Awareness, which is Section-8 Not-for-Profit Organisation that is devoted to create awareness amongst the youth on relevant, contemporary and topical issues of the day, Career Awareness being one of those.

He has been a Guest Faculty at some of the premier institutes of the nation including IIT-Delhi, IIT-Mumbai, IIM-Ahmedabad, IIM-Bangalore, National Institute of Design, National Institute of Fashion Technology and Gujarat Institute of Disaster Management to name a few.

NOTE: The Compiled Content including dates, definitions, degree nomenclatures, entrance exams details etc. in the book has been gathered from various authentic sources like UGC, MHRD, Individual College or Institution websites Etc. This data is being used for educational and information giving purpose. The author acknowledges all sources whether mentioned or otherwise.

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