



**CHANDIGARH
GROUP OF COLLEGES**
Building Careers. Transforming Lives.

**NAAC
GRADE A+**

New B.TECH. PROGRAMS

B.TECH-ROBOTICS & ARTIFICIAL INTELLIGENCE

PROGRAM OBJECTIVE

- The primary objective of Robotics and Artificial Intelligence is to simulate human-like intelligence in machines, empowering them to carry out complex tasks and decision-making processes autonomously.
- To develop systems that can analyze large datasets, identify patterns, and make data-driven decisions.
- Solving problems and making decisions efficiently is invaluable across various industries, from healthcare and finance to transportation and manufacturing.
- Integrating AI with robotics has given rise to intelligent machines that can perform physical tasks with precision and accuracy.
- To improve diagnostics, treatment planning, and patient care. Medical professionals can leverage AI algorithms to analyze medical images, predict disease outcomes, and develop personalized treatment plans for patients.

PROGRAM BENEFITS

- Robotics and Artificial Intelligence also help in the Agricultural industry by developing AI-based robots. These robots reduce the farmer's workload.
- In the Military industry, Military bots can spy through speech and vision detectors, along with saving lives by replacing infantry
- Robotics are also employed to check the eruption of volcanoes, deep oceans, icy places, or places where human survival is difficult.
- Robotics is also used in the medical and healthcare industry as it can perform complex surgeries with a higher risk of a mistake by humans, but with a pre-set of instructions and added Intelligence. AI-integrated robotics could reduce the number of casualties to a large extent.

CAREER OPPORTUNITIES

Once the students complete the program they get amazing job outcomes in distinguished organizations, like Accenture, HCL, Wipro Technologies, Cognizant, TCS, LG Soft, Tech Mahindra, Google, Reliance Industries Limited, Oracle, Dell, Unisys, Sapient, MRF, IBM, Samsung, Infosys, and many others. Some of the common positions that students can serve after completing their B.Tech Robotics and Artificial Intelligence are:

- Developers
- Design Engineers
- Solution Integrators
- Network Administrators
- Database Administrators
- Software Testers
- Domain Consultants
- Industries Officer (Technical)
- IT Manager
- Jr. Software Developer
- Software Engineer
- System Engineers
- Team Leads/ Architect
- Technology Analyst

DURATION & ELIGIBILITY

- Duration:- 4 years
- Eligibility:- All those candidates who have passed the 10+2 examination from a board recognized or established by central/state government through legislation and a member of the Council of Boards of School Education (COBSE), New Delhi with Physics / Mathematics / Chemistry
OR
- Those candidates who have passed a diploma in any Engineering Trade from Punjab State Board of Technical Education & Industrial Training, Chandigarh or Sant Longowal Institute of Engineering and Technology, Longowal (SLIET), or any such examination from any other recognized State Board of Technical Education
OR
- The candidates who have passed two years certificate course from Sant Longowal Institute of Engineering and Technology, Longowal (SLIET) shall be eligible.



**CHANDIGARH
GROUP OF COLLEGES**
Building Careers. Transforming Lives.

Campus Address:

Landran, Kharar-Banur Highway,
Sector 112, Greater Mohali, Punjab 140307
Contact us: +91 95921 04444, 95921 14444, 95921 24444
Admission Helpline: 0172 3984200, **Fax:** 0172 3984207
Toll Free: 1800 200 3575, **Whatsapp:** 95922 14444



B.TECH -ELECTRONICS AND COMPUTER SCIENCE

Electronics & Computer Science is a highly flourishing discipline. Electronics and Computer Science Engineers are in great demand in industries across the world. Applications like mobile phones, space shuttles, desktops, tablets, software designing, etc. are a few examples where competence in both fields is most important. This undergraduate program aims to integrate these engineering fields to meet the demands of the electronic and computer industries.

PROGRAM OBJECTIVE:

B.Tech. in Electronics and Computer Science program is designed to provide quality education imparting skills in electronics hardware, software, and IT development. It is a valued degree that aims to enhance the knowledge of the students and help them unveil innovative ideas to the world. The program focuses on enhancing the core skills of the students by providing hands-on-experience.

- Excel in their professional career, higher studies, and research activities
- Become industry-ready by participating in regular training programs.
- Serve the society as a whole.
- Unveil innovative ideas.

PROGRAM BENEFITS:

- State of the Art Laboratories.
- The department is enriched with highly qualified and experienced faculty members
- Departmental Library with fully equipped additional and E- resources
- Multiple placement opportunities at CGC Landran because of the participation and learning of students in multidisciplinary fields
- Prime Recruiters Amazon, Microsoft, Bosch, etc
- Highest number of patents filed
- Project-based experiential learning

- International Tie-ups.
- Excellent Institute-Industry interface to bridge academic gaps.
- Smart Classrooms

BEYOND THE CURRICULUM

- Centre of Excellence Promoting Experiential Learning
- Extensive R&D activities
- Scores of patents filed.
- Active engagement in International & National Conferences.
- Scope to participate in various National/International Competitions
- Opportunities in Research and Development
- Various achievements in sports and cultural events in college
- Support from the department for filing Patents
- International exposure to students
- Various student chapters enhance skills
- Department club activities for students
- Expert talks/Seminars/Industrial visits/Workshop conduct

CAREER OPPORTUNITIES

B. Tech in Electronics and Computer Science Engineering graduates can find career opportunities in various domains, such as:

- Designing and Developing Embedded systems, robotics, and the Internet of Things (IoT). Information Technology domain such as Software developer, Web developer, database administrator, network engineer, Game developer, and Information security analyst.
- Delving into the realm of artificial intelligence and Machine learning, contributing to the development of algorithms and models for machine learning applications, including image recognition, natural language processing, and data analysis.
- Specializing in the VLSI domain, involving the design and development of integrated

circuits. Responsibilities include circuit design, layout, simulation, and optimization to create efficient and compact electronic devices.

INDUSTRIAL TRAINING:

Electronics & Computer Science students benefit from undergoing training in a few of the below-mentioned companies

- Amazon Development Centre India Pvt Ltd.
- Accenture
- Bosch Global
- Bosch Global Software Technologies
- Capgemini
- Cognizant
- Cubastion Consulting Pvt. Ltd.
- DELL
- DXC
- Ericsson India Pvt. Ltd.
- Fourkites
- HCL
- IBM
- Infosys HWI
- Juspay Technologies Private Limited
- KPIT

- Kritikal Solutions Inc
- Microsoft R&D India Pvt Ltd.
- Mu Sigma Business Solution Pvt. Ltd.
- Nokia Solutions And Networks India Private Limited
- TCS
- Tech Mahindra and many more...

USPOF PROGRAM

- Job opportunities, industry growth, and good pay packages as compared to all other branches.
- Solving technical problems and developing products that lead to an overall intellectual development
- Lots of career opportunities in the software as well as hardware side
- Access to progress in a dynamic field.
- High starting salaries
- Multidisciplinary field

B.TECH-COMPUTER SCIENCE ENGINEERING (CYBER SECURITY)

PROGRAM OBJECTIVE

Precisely the main focus of the courses available at CGC, Landran for the students of Computer Science and Engineering (Cyber Security) are:

- To prepare the students in protecting and defending computer systems and networks from cyber security attacks.
- To ensure a smooth business operation and resilience by minimizing the impact of cyber-attacks for smooth functioning, and securing the finances in the organizations.
- To comply with legal and regulatory requirements by adhering to the standards and best practices of cyber security governance, risk management, and compliance.
- To foster trust and confidence among customers, partners, and stakeholders by demonstrating a commitment to cyber security and data protection.
- To promote innovation and competitiveness by enabling the safe and secure use of emerging technologies and digital services.

- Cyber Security Architects
- Security Analyst
- Cryptographer
- Security Software Developer
- Cryptanalyst
- Network Security Engineer
- Cyber Security Analyst
- Cyber Security Manager
- Chief Information Security Officer
- Information Security Manager
- Cyber Security Engineer
- Ethical Hackers
- Cyber Security Consultant
- Cloud Security Engineer

DURATION & ELIGIBILITY

- Duration:- 4 years
- Eligibility:-Candidates who have passed the 10+2 examination from a board recognized or established by central/state government through legislation and a member of the Council of Boards of School Education (COBSE), New Delhi with Physics / Mathematics / Chemistry

OR

- Those candidates who have passed a diploma in any Engineering Trade from Punjab State Board of Technical Education & Industrial Training, Chandigarh or Sant Longowal Institute of Engineering and Technology, Longowal (SLIET), or any such examination from any other recognized State Board of Technical Education

OR

- The candidates who have passed two years certificate course from Sant Longowal Institute of Engineering and Technology, Longowal (SLIET) shall be eligible.

PROGRAM BENEFITS

- The benefits of cyber security include the prevention of data breaches, the protection of sensitive information, and the deterrence of cyber-attacks.
- Cyber security also helps to ensure the continuity of business operations in the event of a security breach or attack.
- The use of cyber security and especially its benefits have allowed businesses and organizations of all sizes to stay protected against current cyber threats.

CAREER OPPORTUNITIES

Once the students complete the program they get amazing job opportunities in distinguished organizations, like Accenture, HCL, Wipro Technologies, Cognizant, TCS, LG Soft, Tech Mahindra, Google, Reliance Industries Limited, Oracle, Dell, Unisys, Sapient, MRF, IBM, Samsung, Infosys, and many others. Some of the common positions that students can serve after completing their B.Tech Computer Science Engineering (Cyber Security) are:

GLOBAL COLLABORATIONS

To provide world-class exposure to our students, we have entered into collaborations with the following leading foreign universities

