

WIILM UNIVERSITY

Greater Noida

Learn with Purpose, Lead with Purpose

SCHOOL OF ENGINEERING



OUR VISION

Our vision is to be a leading University that inspires students to become responsible global citizens and leaders in their chosen fields and the world, through an innovative, interdisciplinary, and inclusive approach to learning.

OUR MISSION



Our mission is to provide students with an education that is intellectually stimulating and practically relevant. We aim to foster a community of learners who are innovative, interdisciplinary, and socially responsible. We offer a range of programmes that are designed to prepare students for purposeful work and to inspire them to make a positive difference in the world. We are dedicated to empowering students with the knowledge, skills, and experiences they need to achieve their full potential and become responsible global citizens and leaders.

THE IILM ADVANTAGES



Over 30 years of Academic Excellence



Job opportunities with over 400 Companies



Campus Life



Global Network of over 16,000 Alumni



Centrally located green Campuses





Merit-based Scholarships







Internationally
Benchmarked Curriculum

CAMPUS RECRUITERS

IILM University students benefit from access to top-tier recruiters, a testament to the institution's commitment to excellence and its strong industry connections that pave the way for outstanding career prospects upon graduation.

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ACADEMIC & INDUSTRIAL COLLABORATIONS





















SCHOOL OF ENGINEERING

The School of Engineering at IILM University is a leading Institution in North India. Our programmes aim to produce graduates with personal, academic and professional maturity to thrive in today's competitive global job market and to create innovative, sustainable solutions to complex engineering problems. We are in a digital age and to compete with evolving skills the school offers a variety of specialisations in emerging technologies.

SCHOOL OF ENGINEERING

Department of Biotechnology

Department of Mechanical and Allied Engineering Department of Electrical and Electronics Engineering Department of Mechanical and Civil Engineering

PROGRAMMES LIST

UNDERGRADUATE PROGRAMMES

Department of Biotechnology

- B Tech Biotechnology
- B Tech Bioinformatics
- B Tech Food Technology

The minor specialisations offered under these programmes are as follows:

- ► Computational Biology
- ► Industrial Biotechnology
- ► Food Process Engineering
- ► AI & ML
- ► Medical Biotechnology
- ► Dairy Science and Technology
- ► Food Packaging
- **►** Entrepreneurship

Department of Electrical and Electronics Engineering

- B Tech in Electronics and Communication Engineering
 - ► Artificial Intelligence and Machine Learning (AIML)
 - ► Very Large Scale Integration (VLSI)
- B Tech in Robotics and Artificial Intelligence
 - ► Autonomous and EV Technology
 - ► Drone Technology
 - ► Internet of Things (IoT)
- B Tech in Electrical and Computer Engineering
- B Tech in Electronics and Computer Engineering
- B Tech in Electronics and Communication Engineering in collaboration with L&T
- B Tech in Semiconductor Technology

Department of Mechanical and Allied Engineering

- B Tech in Mechanical Engineering
 - ► Drone Technology
 - ► EV Technology
 - ► Robotics and Artificial Intelligence

Department of Mechanical and Civil Engineering

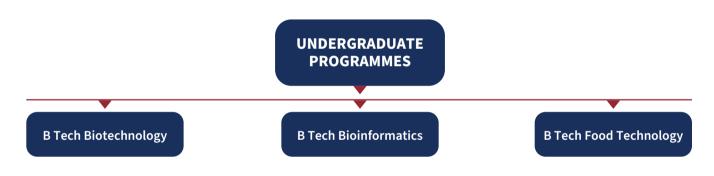
• B Tech in Civil and Sustainable Infrastructure Engineering

POSTGRADUATE PROGRAMMES

- M Tech in Bioinformatics
- M Tech in Biotechnology
- M Tech in Mechanical Engineering
- M Tech in Semiconductor Technology

DEPARTMENT OF BIOTECHNOLOGY

Department of Biotechnology at IILM University, Greater Noida was established in the year 2002. Department has a niche for being progressive and distinctively unique in the field of research and education. Department offers various undergraduate, postgraduate and doctoral programs. We have seven well-equipped labs with state of the art research facilities in various domains. We focus on learning through practice and have been working to provide practical knowledge through our research laboratories.



B Tech Biotechnology

Biotechnology is a branch of science that involves the integration of biotic systems with technology to create value-added, industrially significant products such as pharmaceuticals, crops, food, and dairy. This programme offers students career opportunities in a variety of domains.

B Tech Bioinformatics

Bioinformatics combines computational power with biological research to study data generation, develop tools, algorithms, and software. Graduates in bioinformatics can pursue roles such as research analysts, bioinformaticians, biological software developers, quality control analysts, and biostatisticians.

B Tech Food Technology

This programme develops expertise in food composition, preservation principles, new product development, food quality analysis, and food safety laws. Graduates can work as food safety officers, food analysts, food technologists, microbiologists, scientists, quality assurance managers, and quality control managers.

MINOR SPECIALISATIONS

Computational Biology

This field focuses on solving complex biological and medical challenges using computational and mathematical methods. It is ideal for those with an interest in biological sciences, vaccine technology, computer science, machine learning, artificial intelligence, and big data analysis.

Industrial Biotechnology

Industrial biotechnology offers career prospects in chemicals, petroleum, energy, waste management, and pharmaceuticals. Career options include biochemical engineer, quality analyst, scientist, project manager, and R&D executive.

Artificial Intelligence and Machine Learning (AI & ML)

Al and ML are crucial in bioinformatics, where Al simulates complex biological processes and ML analyses large biological datasets. These skills are valuable in advancing medical research and personalised healthcare.

Medical Biotechnology

This interdisciplinary field applies biological techniques to improve health and treat diseases, encompassing molecular biology, genetic engineering, and cellular biology. Career opportunities include biomedical scientist, clinical researcher, quality control analyst, and R&D executive.

Food Packaging

Food packaging ensures the protection of food products from environmental, chemical, and physical challenges. This specialisation explores the latest technologies and advancements in the packaging industry.

Dairy Science and Technology

This area focuses on extending the shelf life of dairy products such as pasteurised milk, cheese, fermented foods, butter, milk powders, and protein products through physical, enzymatic, and microbial processes.

Food Process Engineering

This specialisation covers unit operations involved in converting raw agricultural products into shelf-stable, nutritious, and safe foods. Students gain skills in food processing, process design, and statistical quality control.

Entrepreneurship

This course bridges biotechnology and business, offering insights into commercialisation, funding, and market analysis. It is ideal for students with a passion for biotech innovation, equipping them to create successful ventures.

POSTGRADUATE PROGRAMMES

M Tech Biotechnology

M Tech Bioinformatics

M Tech Biotechnology

This programme equips students with advanced biotechnological skills in areas such as drug delivery, genomics, vaccine technology, and structural biology. Graduates can work as associate scientists, research associates, scientific officers, pharmacovigilance officers, quality control officers, and assistant engineers.

M Tech Bioinformatics

This programme integrates biological sciences with information technology, computer technology, machine learning, and healthcare. Graduates can pursue roles like senior research associate, quality control executive, computational biologist, pharmacogenomics scientist, patent officer, genetic counsellor, and product development manager.

BIOTECHNOLOGY LAB





DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

The Department of Electrical & Electronics Engineering at IILM University has been a beacon of academic excellence since its establishment in 2002. It offers B Tech, M Tech & Doctoral programmes in Electronics & Communication Engineering with various specialisations in niche areas of technology. The department's philosophy centres on hands-on learning, supported by state-of-the-art laboratories in areas like VLSI, Digital Systems, Electronics Engineering, Sensors and Actuators, and Robotics.

UNDERGRADUATE PROGRAMME

B Tech in Electronics and Communication Engineering in collaboration with L&T

B Tech in Robotics and Artificial Intelligence B Tech in Electrical and Computer Engineering B Tech in Electronics and Computer Engineering B Tech in Electronics and Communication Engineering

B Tech in Semiconductor Technology

B Tech in Electronics & Communication Engineering (Ece) in Collaboration with L&T

The Electronics & Communication Engineering programme, offered in collaboration with L&T, is a four-year undergraduate course designed with strong industry integration. This core engineering discipline equips students with expertise in designing and managing electronic circuits and systems, complemented by specialised courses tailored by L&T. Industry professionals from L&T serve as trainers, ensuring students gain hands-on experience with the latest technologies currently shaping the industry. This comprehensive training prepares graduates to excel in their careers and stay future-ready upon completing the programme.

B Tech in Robotics & Artificial Intelligence (AI)

This exciting programme combines computer science, electronics, and mechanical engineering to provide a strong foundation in programming, machine learning, mechatronics, and control systems. Students gain hands-on experience designing and building robotic prototypes. Graduates are well-prepared for careers in industries such as automation, healthcare, aerospace, warehousing, and automotive.

SPECIALISATIONS

Electric Vehicle Technology

This programme addresses the growing demand for electric vehicles (EVs) by teaching students the principles of EV design, development, and application, including battery technologies, fuel cells, and hybrid electric systems.

Drone Technology

Students learn about the design and operation of unmanned aerial vehicles (UAVs), including aerodynamics, flight dynamics, software programming, sensors, and autonomous systems. Career opportunities include fields such as mapping, surveying, environmental management, real estate, journalism, agriculture, and defence.

Internet of Things (IoT)

This specialisation focuses on the integration of smart devices and sensors within robotic systems. Students learn IoT protocols, embedded systems, wireless communication, and data analytics, preparing them for careers in industrial automation, predictive maintenance, and healthcare.

B Tech in Electrical & Computer Engineering

This programme combines the principles of electrical engineering with advancements in computer technology. Students study topics such as digital electronics, microprocessors, embedded systems, power systems, and computer networks. Graduates can pursue careers in power generation, electronics, telecommunications, and software development.

B Tech in Electronics & Computer Engineering

This programme blends fundamental electronics with cutting-edge computer technologies. Students explore areas such as digital signal processing, microcontrollers, VLSI design, computer architecture, and network security. Graduates can find roles in electronics design, software development, telecommunications, and embedded systems.

B Tech in Electronics & Communication Engineering

Electronics & Communication Engineering is a four-year undergraduate programme that deals with automating systems. This core engineering discipline involves the conceptualisation, design, and management of electronic circuits and systems. Students will learn about analogue and digital systems, semiconductors, embedded systems, programming languages, communication systems, and IoT. Graduates of ECE can find job opportunities in sectors such as telecommunications, consumer electronics, healthcare equipment manufacturing, mobile and satellite communication, and IT.

SPECIALISATIONS

VLSI (Very Large Scale Integration)

This specialisation focuses on the design and analysis of tiny yet powerful electronic chips that are integral to today's compact gadgets and smart technologies. VLSI is in high demand, particularly in the smartphone and computing components industry. Graduates can pursue roles in circuit design, chip design, and product development.

AI & ML (Artificial Intelligence and Machine Learning)

This interdisciplinary specialisation equips students to build smart machines and applications. It blends the core principles of ECE with AI and ML, enabling students to design systems that analyse data and make intelligent decisions with minimal human intervention. Topics include deep learning, robotics, and data analytics. Career opportunities abound in areas such as self-driving cars, healthcare, and other smart technology industries.

B Tech in Semiconductor Technology

This specialised programme focuses on the principles and applications of semiconductor materials and devices. Students gain expertise in areas such as semiconductor physics, fabrication processes, device design, nanomaterials, and VLSI technology. Graduates can pursue careers in semiconductor manufacturing, nanotechnology, and microelectronics, contributing to innovations in chip design, renewable energy, and quantum technologies.

POSTGRADUATE PROGRAMME

M Tech in Semiconductor Technology

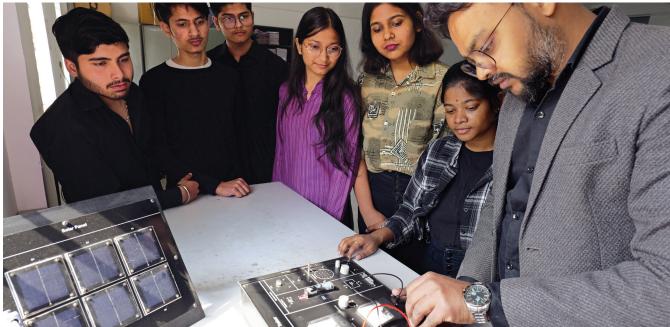
M Tech in Semiconductor Technology

This postgraduate programme develops advanced skills in designing and developing electronic systems. Graduates can work in fields such as VLSI design, embedded systems, semiconductor manufacturing, and computer-aided design. With the growing importance of semiconductor technology in industries like integrated circuits (ICs) and energy-efficient systems, this programme offers excellent career prospects.

ELECTRICAL & ELECTRONICS ENGINEERING LAB







DEPARTMENT OF MECHANICAL & ALLIED ENGINEERING

UNDERGRADUATE PROGRAMME

B Tech in Mechanical Engineering

B Tech in Mechanical Engineering

This programme provides students with access to modern facilities and a curriculum regularly updated to include industry-oriented and science-based modules. Key areas of study include fluid mechanics, thermal sciences, materials, design and simulation software, computer programming, machine learning, 3D printing, artificial intelligence, and mechatronic systems. Graduates can pursue careers in sectors such as automotive, product design and manufacturing, healthcare, robotics, software, and defence industries.

SPECIALISATIONS

Electric Vehicle Technology

This specialisation addresses the growing demand for EVs by providing students with a comprehensive understanding of electric vehicle technologies, including the design, development, and application of batteries, fuel cells, and hybrid systems.

Drone Technology

Students learn about the design and operation of unmanned aerial vehicles, including aerodynamics, flight dynamics, software programming, sensors, and propulsion systems. This prepares them for careers in mapping, surveying, environmental management, agriculture, videography, journalism, search and rescue, and defence.

Robotics & Artificial Intelligence (R & AI)

This multidisciplinary specialisation covers topics such as machine vision, machine learning, edge computing, IoT, cobots, and Industry 4.0. Students will develop skills in designing and testing AI algorithms for robotic systems, preparing them for careers in automation, healthcare, aerospace, software, defence, and automotive industries.

POSTGRADUATE PROGRAMME

M Tech in Mechanical Engineering

M Tech in Mechanical Engineering

This two-year postgraduate programme offers advanced training in fields such as material science, thermal sciences and renewable energy, electric vehicle technology, computer-aided design, additive manufacturing, and robotics. With a focus on research, students undertake detailed projects and dissertations. Career opportunities for graduates include roles in the automotive industry, renewable energy sector, product design and development, and data analytics.

MECHANICAL & ALLIED ENGINEERING LAB

DEPARTMENT OF MECHANICAL AND CIVIL ENGINEERING

B Tech in Civil & Sustainable Infrastructure Engineering

This programme focuses on equipping students with knowledge and skills to design, develop, and manage sustainable infrastructure projects. The curriculum incorporates modern engineering practices, including structural analysis, environmental engineering, sustainable construction techniques, and smart city concepts. Students will also gain exposure to the use of advanced tools like GIS, BIM (Building Information Modelling), and green building technologies.

Graduates can pursue careers in sectors such as urban planning, sustainable construction, transportation engineering, water resource management, and environmental consultancy, contributing to the development of eco-friendly and resilient infrastructure.

DOCTORAL PROGRAMME

IILM University offers a robust PhD programme in Engineering, catering to advanced research enthusiasts in the fields of:

Biotechnology

Bioinformatics

Electronics

CLUBS & SOCIETIES















































EXPERIENTIAL LEARNING











- Access advanced labs for AI, VLSI, Biotechnology, and Food Technology.
- Engage in hands-on learning with cutting-edge instruments and technologies.



- Gain industry-ready skills through technical workshops and career sessions.
- Enhance problem-solving abilities with real-world projects and mentorship.



- Collaborate with industry leaders like L&T EduTech and Biocon for practical exposure.
- Benefit from internships and live projects to bridge the gap between theory and practice.



- Work on interdisciplinary projects funded by DST, AICTE, and ICMR.
- Develop innovative solutions to real-world problems with expert faculty guidance.

ALUMNI ACHIEVEMENTS



NITI VANEE B.Tech. Biotechnology (2002-2006) Co-founder and CEO -IGenomeDx Inc., USA



AMAN TYAGI B. Tech Biotechnology (2003-2007) **Senior Product Manager Biorad Laboratories, USA**



VIBHU GUPTA **B.Tech Biotechnology** (2003-2007) **Product Manager** Synthetic Genomics, Inc, Michigan, USA



RAHUL BHARDWAJ B.Tech Biotechnology (2003-2007) **Deputy General Manager** Rhenus Logistics India Pvt. Ltd.



MS CHARU DUBEY Quality Engineer Adobe



MR. ROHIT KUMAR GUPTA **Risk Analyst Paytm**



MR. SHASHANK SINGH SENGAR **Quality Project Leader** Honda Motorcycle and Scooter India Pvt. Ltd.



MR. NITIN KUMAR **Senior Cloud Architect** Amazon Web Services (AWS), **Australia**



EBAD UL HAQ B.Tech Biotechnology (2012-2016) **Assistant manager** Cadila Healthcare



MR VAIBHAV BANSAL Sr. SW Engineer (Test) Roku Inc. Cambridge, UK



MR PRANJAL SRIVASTAVA **Superintendent Engineer** ONGC Ltd.



MR. ANKUR BARANWAL Sr. Manager (International Business) **Jacson Group**

READY TO TAKE THE LEAP?

Visit our campus, meet our community, and see for yourself why IILM University is the right choice for your future. We can't wait to welcome you!

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