

ASTON UNIVERSITY AND TIET PARTNERSHIP

**Dual Degree: 2 years undergraduate
study in India + 2 years study in the UK**



Aston University is committed to doing things differently, with a forward-thinking approach that embraces new technologies and innovation in education.

The Thapar Institute of Engineering and Technology (TIET) is one of India's oldest and finest educational institutions, which provides a steady source of highly skilled talent. Founded in 1956 with a campus spread across 250 acres, TIET has been a pioneer in engineering education, research and innovation. TIET has been awarded with an 'A++' accreditation by the National Assessment and Accreditation Council (NAAC).



World-Class Partnership, Global Rankings

Aston University

- Top 5% global university (QS, World University Rankings, 2026)
- University of the Year for Student Success (Daily Mail University Guide, 2025)
- Gold standard teaching (TEF, 2023)
- Top 20 for graduate salaries (Longitudinal Education Outcomes, 2025)

TIET

- Accredited by NAAC with 'A++' Grade
- AACSB Accredited programmes
- Ranked 29th among Universities in India (NIRF 2025)
- Ranked 29 among Engineering Institutions in India (NIRF 2025)

Together, Aston and TIET offer a truly global dual degree.

Students benefit from cross-campus collaboration, internationally respected programmes, and global industry connections.

Aston University and TIET

Double the degree, double the edge

Dual degree programme

Study in India and the UK – graduate with two degrees

Study in India AND the UK

Study Years 1 & 2 at **TIET, Patiala, India**, followed by Years 3 & 4 at **Aston University, Birmingham, UK**. Earn **two internationally recognised degrees** — one from each institution.

About the programme

Over four years, you'll build expertise in key engineering disciplines and professional skills. Choose from two dual degree courses:

- B.E. Electronics & Communication Engineering + BEng Electrical and Electronic Engineering
- B.E. Electronics & Computer Engineering + BEng Electronic Engineering and Computer Science



Scholarship

Students are eligible to apply for the Global Articulation & Progression Scholarship, and Sir Adrian Cadbury Chancellor's Scholarships



Programme structure

Years 1 & 2: Study at TIET India

Build a strong foundation in one of the fastest-growing economies with regional and global perspectives.

Years 3 & 4: Transfer to Aston University, Birmingham, UK

Develop advanced knowledge and leadership skills in one of the UK's most respected universities.



B.E. Electronics & Communication Engineering + BEng Electrical and Electronic Engineering

How you will learn

The teaching methodology follows a practical, hands-on approach designed to transition students from theoretical concepts to real-world applications:

- **Lectures and Tutorials:** Core concepts are delivered through formal instruction and reinforced in tutorial sessions.
- **Laboratory and Workshop Practice:** A significant portion of the learning occurs in specialised labs (eg. Electronics, Physics, and Manufacturing) where students perform experiments, collect data, and use industry-standard tools.
- **Design Projects:** Students engage in collaborative “Engineering Design Projects,” such as the Mangonel project (catapult design) and the Buggy Lab, which require teamwork and “self-effort hours” to solve integration challenges.
- **Software Integration:** Learning is supported by modern computational tools, including MATLAB for signal analysis, AutoCAD/SolidWorks for 3D modelling, and Arduino IDE for microcontroller programming.

What you will learn

The curriculum is multi-disciplinary, ensuring students gain expertise across several critical domains:

- **Core Engineering & Sciences:** You will study Physics, Chemistry, and Engineering Materials to understand the properties and laws governing technical systems.
- **Mathematical Foundations:** The course covers advanced Calculus, Linear Algebra, Optimization Techniques, and Statistical Methods crucial for engineering problem-solving.
- **Electronics & Communications:** You will master Analog and Digital Electronic Circuits, Signals and Systems, and Electromagnetic Field Theory.
- **Computing & AI:** You will develop proficiency in C and Python programming, Data Structures, and foundational AI concepts.

Course objectives

The primary objective of this program is to equip students with a strong foundation in both the physical laws of engineering and the modern technical skills required for professional practice. Key goals include:

- Developing **hardware and software co-design** capabilities through integrated electronic systems projects.
- Providing a comprehensive understanding of **circuit theory, digital system design, and signal processing**.
- Integrating **Artificial Intelligence (AI)** literacy, focusing on both practical applications for engineers and the ethical mitigation of risks.
- Enhancing professional and interpersonal communication, alongside quantitative and logical reasoning skills for global employability.



B.E. Electronics & Computer Engineering + BEng Electronic Engineering and Computer Science

How you will learn

Learning is delivered through a blend of theoretical instruction and practical, integrated project work:

- **CDIO Methodology:** The program follows the Conceive-Design-Implement-Operate methodology, emphasising learning-by-doing.
- **Hands-on Projects:** Integrated projects like the “Mangonel” (catapult) project and the “Buggy Lab” require students to apply hardware and software co-design principles in a team environment.
- **Laboratory & Workshop Practice:** Extensive lab work in electronics, manufacturing, and computer labs allows students to use industry-standard tools like Eagle (PCB layout), C/C++, Python, and MATLAB.
- **Team-Based Activities:** Significant emphasis is placed on collaborative efforts, teaching students task sub-division and the integration of individual contributions.

What you will learn

The curriculum combines core electronics with advanced computer science and AI concepts:

- **Computer Science & Networks:** You will master Data Structures and Algorithms, Database Management Systems, and Computer and Communication Networks.
- **Electronics & Embedded Systems:** You will study Analog Electronic Circuits, Digital System Design, Signals and Systems, and Embedded Systems with a focus on ARM processors.
- **Mathematics & Optimization:** Foundations in Calculus, Discrete Mathematics, Linear Algebra, and Optimisation Techniques are covered to support engineering logic.
- **Artificial Intelligence:** Learning covers AI Fundamentals, Machine Learning, and specialised modules on Ethics and Risk Mitigation in AI.

Course objectives

The B.E. Electronics and Computer Engineering (ENC) program is designed to create engineers who can bridge the gap between hardware and software. Key objectives include:

- **System Integration:** Equipping students with the skills to design, analyze, and evaluate digital systems of medium complexity using MSI, SSI, and programmable logic devices.
- **Embedded Design:** Providing fundamental knowledge to design embedded systems, focusing on ARM processor architecture, programming, and interfacing with peripherals.
- **AI & Data Literacy:** Developing a deep understanding of AI fundamentals and the ethical navigation of AI in safety-critical engineering domains.
- **Analytical Proficiency:** Mastering signal processing, mathematical modeling, and statistical methods to solve real-world engineering problems.
- **Professional Foundation:** Building strong interpersonal, verbal, and technical communication skills alongside aptitude and logical reasoning for global competitiveness.

Why you should choose the dual degree?

This isn't just a degree – it's a launchpad for global success.

By studying in both India and the UK, you'll build an international mindset, expand your professional network, and develop a standout CV that speaks across borders.

Year 1 & 2 at TIET, India

Begin your engineering journey at one of India's most prestigious institutions.

Location advantages:

- Located in Patiala, Punjab – a vibrant academic city with a rich cultural heritage
- Expansive 250-acre campus with over 100 state-of-the-art teaching and research laboratories
- Modern, fully equipped hostels, and a new Learning Centre

Academic edge:

- Ranked 29th among Universities in India (NIRF 2025)
- Cutting-edge research, strong industry links and practical training for real-world impact

Community:

- Diverse student body with a strong tradition of academic excellence
- Supportive campus environment with expert faculty mentorship
- Excellent placement record with top global and Indian corporations

Year 3 & 4 at Aston University, Birmingham

Complete your degree in Birmingham – the UK's second-largest city.

World-class learning:

- Ranked top 5% globally (QS, 2026)
- Gold-rated teaching (TEF 2023)

Career-ready support

- Careers and Placement Team
- Local and global employer networking
- Internships and part-time jobs
- Free English language support
- Entrepreneur support through our on-campus start-up incubator

Vibrant student life:

- 120+ nationalities on campus
- Affordable cost of living
- Culture, nightlife, and connectivity

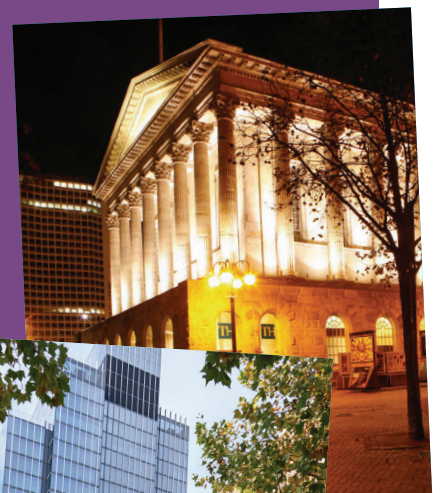
About India

India is a diverse, multi-cultural country offering world-class facilities and experiences for students. Patiala, in Punjab offers students a vibrant environment for studies and living with large green spaces and delectable food. From travel to sports and technology, India has a lot to offer to make you a true global citizen.



About Birmingham

Birmingham is a vibrant, multicultural city with world-class food, music, shopping and excellent transport links, making it one of the UK's top student destinations. Centrally located and rich in culture and opportunity, it offers a dynamic and inclusive environment ideal for learning, living and exploring.



Applying



The admissions team is here to guide you every step of the way. Whether you prefer a phone call, email, or in-person visit, our dedicated advisors are ready to answer your questions and support you through the application process.

Website: <https://www.thapar.edu/>

Email: admissions@thapar.edu
int-programs@thapar.edu

Call/ WhatsApp: +91 1800 202 4100

Application deadlines

- May 08, 2026: Last date to apply with a regular application fee of Rs 1,500.
- After May 08, 2026: Applications will still be accepted but will require a higher application fee of Rs 2,000.
- July 31, 2026: Final deadline for Foreign National (FN) and Non-Resident Indian (NRI) candidates to apply for all programmes.

Visa support

International students can access our free advice service and speak directly to our expert international student visa advisers.

aston.ac.uk/internationals/students-applying

More information

About the partnership between Aston University and TIET:
aston.ac.uk/international/international-partnerships/tiet



📍 Aston University
Birmingham
B4 7ET

✉ hello@aston.ac.uk

☎ 0121 204 3000

➡ www.aston.ac.uk/international

📍 Thapar Institute of Engineering & Technology
P.O. Box 32, Bhadson Road, Patiala,
Punjab, Pin -147004, India

✉ admissions@thapar.edu

☎ +91 1800 202 4100