The Trinity-TIET
International Engineering Programme
An engineering degree that’s twice as powerful

Specialisations offered:
- Computer Engineering
- Electronic and Computer Engineering
- Electronic Engineering
- Mechanical and Manufacturing Engineering
- Civil, Structural and Environmental Engineering
International Engineering Course Structure

Year 1 – Undertaken in TIET
- Applied Physics
- Computer Programming – I & II
- Electrical Engineering
- Engineering Drawing
- Introduction to Professional Communication
- Mathematics – I & II
- Applied Chemistry
- Electronic Engineering
- Energy and Environment
- Engineering Design Project – I
- Mechanics

Year 2 – Undertaken in TIET
- Engineering Design Project – II
- Manufacturing Processes
- Optimisation Techniques
- Solids and Structures
- Thermo-Fluids
- Engineering Materials
- Numerical Analysis
- 4-5 Program Specific Modules

Year 3 – Undertaken in Trinity (Begin specialist lectures)
Year 3 modules (Common to all disciplines):
- Engineering Mathematics V
- Probability and Statistics
- Innovation and Entrepreneurship

Specialism modules in your discipline:
- Computer Engineering
- Electronic and Computer Engineering
- Electronic Engineering
- Mechanical and Manufacturing Engineering
- Civil, Structural and Environmental Engineering

For details of all modules and timetables, please see www.tcd.ie/Engineering/undergraduate/baiyear3/

Graduate with Trinity B.A., B.A.I. degrees

Year 4 – Undertaken in Trinity/B.A.I. Programme
Year 4 modules (Common to all disciplines):
- Management for Engineers
- Individual Research Project

Specialism modules in your discipline:
- Individual Research Project
- Research Methods

For details of all modules and timetables, please see www.tcd.ie/Engineering/undergraduate/baiyear4/

Year 4 – Undertaken in Trinity/industry M.A.I. Programme
- Year at Trinity
- OR
- Semester 1 – Trinity
- Semester 2 – Internship

Graduate with Trinity B.A., M.A.I. degrees

Year 5 – Undertaken in Trinity M.A.I. Programme
Year 5 modules (Common to all disciplines):
- Individual Research Project
- Research Methods

Specialism modules in your discipline.

For details of all modules and timetables, please see www.tcd.ie/Engineering/undergraduate/maiyear5/

Graduate with Trinity B.A., M.A.I. degrees
About Trinity College Dublin, the University of Dublin

Trinity, founded in 1592, is Ireland’s oldest and highest ranked university.

For over 425 years, this historic university has been a world leader in high-quality, internationally-recognised education. With a global reputation for excellence, Trinity promotes creativity and innovative thinking in students.

Trinity’s bustling 47-acre campus is an oasis in the very heart of Dublin, a vibrant and safe European capital city. The university’s city-centre location offers students a unique opportunity to blend a rigorous academic programme with an unparalleled array of cultural, social and professional experiences. A wealth of museums, theatres, galleries, cafés, restaurants and historic tourist sites are located right on Trinity’s doorstep.

As a leading university on the world stage, Trinity is recognised for academic excellence and a transformative student experience.

Trinity academics are global leaders in their fields who work alongside students in a common enterprise of discovery. The Trinity curriculum is about imparting knowledge and is aimed at developing the critical faculties of the mind, through freedom of expression, willingness to engage in debate, and original research.

Dedicated academic and pastoral support is provided throughout a student’s time in the university. Each incoming student is assigned a tutor, a member of staff who is there to advise and help them deal with any issues, academic or otherwise. In addition, students in the International Engineering Programme are also assigned a mentor in their engineering discipline.

The university has produced generations of outstanding graduates, held in high esteem by employers internationally. To study at Trinity is to become part of a global community of thinkers, creators, scientists, artists, inventors and entrepreneurs, from over 120 different countries.

Trinity is 1st in Europe for producing Entrepreneurs, generating 180 companies, producing 192 entrepreneurs and raising $2,166 million over the last 10 years.

PitchBook Universities Report, 2016/2017
About Thapar Institute of Engineering and Technology

Thapar Institute of Engineering and Technology (TIET), Patiala, is one of India’s finest institutions and a steady source of highly skilled manpower to corporate India. TIET has been ranked at 20th position amongst the top 100 engineering institutions in the recent NIRF-2018 rankings. The success of TIET lies mainly on cutting-edge research, enviable infrastructure and smart institute-industry linkages.

TIET, with its sprawling campus spread over 250 acres, is home to over 100 teaching and research laboratories in engineering and sciences. The majority of the students reside on campus in fully equipped hostels. The already impressive infrastructure will be further bolstered by a new Learning Centre which includes a Green Library, Computer Science Block and Lecture Hall complex.

TIET offers BE degree programmes at the undergraduate level. This 2+2 credit transfer programme (International Engineering Programme) is in collaboration with Trinity College Dublin, the University of Dublin.

TIET has forged strong links with industry to impart a practical dimension to technical training, and our students secure placements with top global and Indian corporations. We encourage students to be proactive in exploring employment opportunities in Ireland and India.
About the International Engineering Programme (IEP)

Trinity offers a number of specialisations:
- Computer Engineering
- Electronic and Computer Engineering
- Electronic Engineering
- Mechanical and Manufacturing Engineering
- Civil, Structural and Environmental Engineering

Trinity and TIET have developed a credit transfer International Engineering Programme (IEP) which enables students admitted to undergraduate engineering programmes at TIET the opportunity to study at Ireland’s leading university, Trinity College Dublin. The programme provides an opportunity for engineering undergraduates to secure a degree from Trinity, consistently ranked as Ireland’s top university and within the top 1% of universities worldwide.

Drawing on the expertise of the School of Engineering and the School of Computer Science and Statistics at Trinity, this programme focuses on delivering a research-inspired, outcome-based educational experience to students. Eligible students will pursue the first two years of their course in India before transferring to Ireland for years 3 and 4 of the degree programme, subject to achieving the required grades. Additionally, qualified students can apply to pursue a Masters (MAI) qualification by completing one further year at Trinity.

The IEP undergraduate programme is multi-dimensional, having a strong technical focus and also an emphasis on developing other skills engineers require, such as team working skills, knowledge of ethics and an awareness of the social and environmental impacts of their work. Trinity graduates have a broad-based understanding of the whole discipline and a detailed knowledge of their chosen specialist area. They often end up working, both locally and internationally, on multi-disciplinary projects, that require innovative approaches and thinking.

The first two years, taught in TIET, introduce the different facets of engineering, including introductory courses in engineering, science and mathematics. From third year onwards, students have the opportunity in Trinity to broaden and deepen their knowledge and understanding of their chosen specialism. Subjects are studied in much greater detail and students undertake real-life, practical projects. See examples on Trinity’s websites: www.tcd.ie/Engineering/ and www.scss.tcd.ie/.

The engineering programmes in Trinity are professionally accredited by Engineers Ireland, who are part of the Washington Accord, and therefore are internationally recognised. Graduates have both a broad-based understanding of the whole discipline and a detailed knowledge of their chosen specialist area. The aim is that graduates will be able to continuously train themselves, to adapt and move into related or newly emerging areas as their careers develop after graduation.
“Innovation is at the heart of the Trinity learning experience”

The School of Engineering at Trinity offers outstanding teaching by engineers who are at the forefront of their field worldwide. It has a strong philosophy of research-led teaching and continuously benchmarks itself against the top international engineering schools. The Engineering course offers the opportunity to carry out research with the aim of producing graduates capable of participating at the highest national and international levels.

The Computer Engineering and Electronic and Computer Engineering specialisations are led by the School of Computer Science and Statistics. The School is noted for establishing Computer Science as an academic discipline in Ireland, with a rich history in the development of world-class research and teaching, as well as many successful start-up companies.

Students will gain industry-related skills and knowledge from studying all Engineering disciplines at Trinity. For those undertaking the Masters programme, there are opportunities for credit-bearing work placements. IEP students are also encouraged to independently organise work placements during their summer holidays.

“When I decided to move to Dublin, I knew it was an opportunity to step out of my comfort zone, challenge myself and be independent. The course exceeded my expectations, teaching me skills beyond computer engineering that have helped me develop as a person. This includes confidence, self-discipline and team working skills. By enrolling in Trinity, you get not only a supportive faculty and the state-of-the-art facilities, but also picturesque surroundings and company of some of the most wonderful people from around the globe. And of course, the Irish charm and friendliness, both inside the college and within the Georgian heart of Dublin serves as the perfect icing on the cake.”

Peru Bhardwaj
Computer Engineering – 2015-2017
Why Choose Trinity?

Education at Trinity

- Trinity offers a world class educational experience, both in and beyond the classroom. Our curriculum is inspired by the research that takes place across the university. Our students are an integral part of our community of scholars who work together to explore the major questions in their areas of study. The IEP programme will enable you to cover a broad range of core subjects in your third and fourth years, allowing you to focus in-depth on your engineering specialization.

Student Life at Trinity

- As Ireland’s top ranked university Trinity offers students an unparalleled experience. There are 120 societies and 50 sports clubs waiting for you to join them during Freshers’ Week, along with course-specific social events for you to get to know your new classmates. In addition, Trinity students get to experience the legendary Trinity Ball, the largest private party in Europe.

International Reputation

- Trinity has a longstanding reputation for excellence in teaching and research. We are Ireland’s top ranked university.
- PitchBook analysis, from 2006-2017, showed that Trinity alumni represented 216 entrepreneurs, formed 201 venture-backed companies, and raised capital of approximately $2,372 million.

Innovation & Entrepreneurship

- Innovation and entrepreneurship are at the heart of the Trinity learning experience.
- Trinity students are actively encouraged to engage in entrepreneurship and Innovation throughout their programme. As a result, Trinity has been ranked as the leading European university in terms of producing entrepreneurs.
- Launchbox (Trinity’s start-up summer accelerator programme) has seen the creation of 40 startups that went on to raise €6.1 million in investment.
- Launchpad (experiential entrepreneurship program open to Trinity students), provides thousands of students with a major network of venture coaches and an entrepreneurial support system.
Employability

- Trinity is the only Irish university to feature in the Times Higher Education Global Employability University Ranking top 150 in 2017.
- Over 500 employers publish vacancies annually with Trinity Careers Advisory Service.
- For students pursing the Masters (MAI), Trinity offers situation-based learning with internship opportunities in global companies located in Ireland.
- Graduates are highly sought after, with an annual career event taking place, for both Engineering and Computer Science, where employers meet students to discuss employment opportunities. These include: Google, Microsoft, Accenture, SAP, Deloitte, Equifax, Fineos, First Derivatives, Geneva Trading, Hubspot, Lidl, Microsoft, Mucich Re, Murex, Susquehanna International Group Ltd, Swrve, United Health Group – Optum, Workday, Abbot Ireland, AECOM, Analog Devices, Arista Network, ARUP, Designer Group, Diageo Plc, Ericsson, ESB, Ethos Engineering, Glenbia, Glen Dimplex, Hilti, Intel Ireland, Jacobs Engineering, Jaguar Land Rover, Jones Engineering Group, Irish Cement Ltd, Kingspan Group Plc, Mott McDonald, OpenHydro Technology, RPS Group and Vodafone Ireland.
- Trinity’s Career Advisory Service offers guidance on CVs, job applications, LinkedIn profiles, along with the opportunity to undertake practice interviews.

Location

- Trinity is situated in the heart of Dublin city, at the centre of the Ireland’s transport hub, on a beautiful green campus, which contains a wonderful mix of modern and historic facilities (including the country’s largest research library).

Diversity of the Trinity Community

- Trinity is home to a diverse and multicultural community. Trinity’s international students represent over 120 different nationalities.

Student Supports

- Trinity has a strong network of student supports to ensure all our students get the most out of their student experience. These include a personal tutor for each undergraduate student, a wide range of learning supports to aid transition to Trinity, peer support and student mentors, and an excellent Careers Advisory Service.

Alumni

- Some of the most famous people in Irish history have been educated here: writers like Oscar Wilde; scientists like William Rowan Hamilton and E.T.S. Walton, who won the Nobel Prize for splitting the atom. Additionally, there have been Irish presidents Mary Robinson and Mary McAleese and our current Prime Minister (Taoiseach) Leo Varadkar, and many industry leaders and entrepreneurs. Most recently, William Campbell, who won the Nobel Prize for Medicine in 2015.
- Our Alumni Career Network provides support long after graduation – allowing graduates to connect directly with other alumni around the world, to benefit from their experience and receive career advice.
Benefits of the Credit Transfer Programme with Trinity College Dublin

Cost Savings
The student will pay fees at TIET for the first two years of the programme. For years 3 and 4, eligible students will pay the relevant Trinity fee for the course. By choosing this approach the student will pay substantially lower fees than their international counterparts who opt for a four year programme at Trinity. Savings are in the region of €35,000 within this model. Additionally, living costs are significantly lower as the student will be spending only two years in Ireland (saving approximately €20,000).

Postgraduate Education and Placement
Graduates will have an opportunity to apply for a Masters (MAI) degree (incorporating a research dissertation) at Trinity by completing a further year following the undergraduate programme. MAI students also have the possibility of undertaking a credit-bearing work placement. More details of the Engineering MAI year can be found here: [www.tcd.ie/Engineering/undergraduate/maiyear5/](http://www.tcd.ie/Engineering/undergraduate/maiyear5/)

Graduates of the BAI programme are entitled to an additional 12 month work visa extension (up to 24 months total) in Ireland, whereas graduates of the MAI programme are entitled to a 24 month work visa, providing students with the opportunity to gain international work experience.

Work While Studying
Non-EU students registered on a full-time education course lasting for at least one academic year can work part-time, up to a maximum of 20 hours per week during term time and up to 40 hours per week during term breaks. On registration with the Irish Nationalisation Immigration Service (INIS), students will receive a passport stamp reflecting this entitlement. Further information can be found at [https://www.icosirl.ie/eng/student_information/working_in_ireland.html](https://www.icosirl.ie/eng/student_information/working_in_ireland.html). If the student takes up this route, he/she may be able to cover some of their living expenses in Ireland.

The Careers Advisory Service at Trinity advertises a variety of work experience and internship opportunities on their website. They also send out weekly emails with updated job listings for which students may apply. Students can also search for summer internship opportunities. Please see the Careers Advisory Service website for more details: [www.tcd.ie/Careers/](http://www.tcd.ie/Careers/)

“She works really is one of the best universities in the world. I couldn’t have asked for more; the teachers are so helpful to me, whenever there is anything I need or didn’t understand they are always there without delay. The Trinity program granted me an international perspective I would not otherwise have got. I got to study different subjects from TIET which expanded my knowledge in Computers and Electronics Engineering. Presently, I am in fourth year, but I already feel like I am prepared for the professional career ahead. The facilities are just amazing and the place feels homely. Trinity offers an intellectual environment that is matched in very few other places in the world. I have made really good friends here and many of them are among my best friends now; I think it is because we are all united by work. The Trinity experience is definitely one that I will never regret. It is quite possibly one of the best decisions of my life and I’m so grateful that I got the opportunity to study here. I would recommend Trinity College Dublin to anybody.”

Shekhar Jain
Computer Engineering – 2015-2017
Personal Tutor

Trinity’s Tutor Service is a unique approach to student care. Every undergraduate student is assigned an academic tutor who provides personal and academic advice and support throughout their time in Trinity. A blend of mentor and advisor, tutors assist students with any difficulties, listen to their concerns and help them to get the most out of their time at Trinity College Dublin. For further information see: www.tcd.ie/Senior_Tutor

Life in Dublin

With a fast-growing, cosmopolitan population of just over one million, Dublin is a vibrant European capital city. Located at the heart of Dublin, Trinity sits at the very centre of everything the city has to offer. Blending a high-energy, multinational professional culture with traditional Irish warmth and hospitality, Dublin has sprawling parks, cozy cafés and quirky restaurants by day, with Victorian pubs, fashionable clubs, music gigs and theatre by night. Dublin has been voted as one of the safest cities in the world for tourists (Post Office Insurance 2015).

Graduate Skills and Career Opportunities

Engineering graduates from this International Engineering programme have the capacity to think independently and work in teams. Their strong engineering foundation knowledge allows them to problem-solve in a wide range of technical areas. They are able to communicate their technical and creative ideas to other professionals and to society at large. They are able to take responsibility, deal with complexity and ambiguity, and successfully face open-ended challenges. Graduates from Trinity pursue careers across many fields all over the world.

Students can sign up to meet with the Engineering and Computer Science Careers Advisor for one-to-one careers advice. They also have the opportunity to undertake mock interviews, or attend a drop-in clinic to help perfect their CV (résumé) and LinkedIn profile.

You can find more information about what graduates from each course are doing now on Your Degree-What Next? at: www.tcd.ie/Careers/students/degree/. Trinity has an active alumni network, with over 110,000 alumni currently working in 130 countries. Local alumni chapters are a great source of networking for students.

“Coming to Trinity has been a truly rewarding experience. The curriculum at Trinity is very unique, you get to learn a lot by doing assignments and labs under one of the best facilities in the world. It is at Trinity that I have found my true passion for Computers. The Engineering course also focuses on developing the entrepreneur in you and gives you ample opportunities to kick-start your idea. Trinity being in Dublin-Europe’s IT hub, you get a whole array of opportunities to grow. I feel lucky to have studied in one of the world’s top universities.”

Abhinav Garg
Computer Engineering – 2015-2017
Admissions Process

Admission to the TIET-Trinity International Engineering Programme is based purely on academic merit, including performance in the JEE (Main) examination. Students must secure at least 60% marks in the 10+2 examination, or equivalent. Eligibility for admittance to the IEP is the same as for admittance to the other undergraduate Engineering pathways offered by TIET.

Students spend Year 1 and Year 2 at Thapar before transferring to Trinity for Year 3 and Year 4 of the degree programme, subject to meeting academic requirements. Qualified students may apply to pursue their studies to Master (MAI) level by completing Year 5.

Fees

For further fee details, please email:
Prof. Ajay Batish  Dean Partnerships & Accreditation
TIET  int-programs@thapar.edu
For further information please contact:
Prof. Ajay Batish
Dean Partnerships & Accreditation
Thapar Institute of Engineering and Technology
P.O. Box 32, Bhadson Road, Patiala, Punjab – 147004
Email: int-programs@thapar.edu

For more information on Trinity and the Engineering Course, please see Trinity's websites:
www.tcd.ie/Engineering/ and www.scss.tcd.ie/