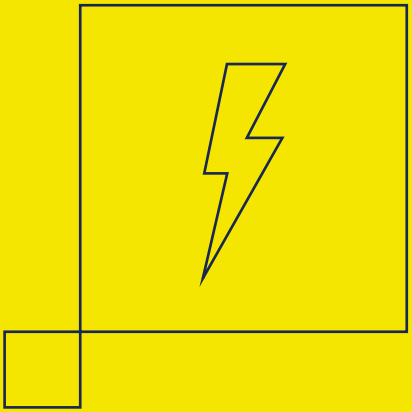
INSTITUTO MAUÁ DE TECNOLOGIA

MAUÁ

maua.br

ELECTRICAL ENGINEERING SÃO CAETANO DO SUL

ELECTRICAL



WHAT DOES AN ELECTRICAL ENGINEER DO?

Electrical engineers are responsible for carrying out studies, and for the design, assembly, installation, maintenance and operation aimed at the generation, transmission, distribution and efficient conversion of energy, whether from conventional (hydraulic or thermal) or alternative (wind, solar photovoltaic, biomass, tidal, geothermal and biogas) sources, for a wide variety of economic and society sectors.

IN WHAT FIELDS CAN AN ELECTRICAL ENGINEER WORK?

Electrical engineers are qualified to work in the following areas:

- Preparing electrical diagrams of new buildings;
- Automating the electrical installations in homes, buildings, commercial and industrial properties;
- Developing projects, works, installations, maintenance of equipment and systems associated with the generation, transmission and supply of electric energy, in hydroelectric and thermoelectric power plant or wind and solar photovoltaic parks, among others; power transmission lines, high- and medium-voltage substations;
- Designing energy conversion systems and power systems;
- Studies on energy quality and savings;
- Studies on the protection, stability and transients of power systems;
- Solutions for improving quality of electric energy;
- Developing automatic start systems for industrial machines;
- Providing technical consultancy and expertise services;
- Electrical equipment specifications and technical sales;
- Managing industrial processes;
- Selling energy, supervising, inspecting and expanding the Electrical Power System (SEP) and the National Interconnected System (SIN) at government and private agencies.

MERCADO DE TRABALHO

Electrical engineers are highly sought after in the job market, especially in the GTDE fields (generation, transmission and distribution of electricity). With the with rising GDP and population growth, the sector needs to increase the generation, transmission and distribution of energy with quality and efficiency. It is currently experiencing rapid growth in alternative energy sources such as Solar Photovoltaic, Wind Energy and biomass. As a result, the work of specialized professionals becomes increasingly important, and it is not uncommon to see companies struggling to find qualified engineers.

ELECTRICAL

PROGRAM LENGTH:
DAYTIME CLASSES: 5 YEARS

LOCATION:
SÃO CAETANO DO SUL CAMPUS

THE ELECTRICAL ENGINEERING PROGRAM AT IMT

The Electrical Engineering Program at IMT provides students with an education that not only has a strong focus on the fundamental concepts of engineering, but it also interconnects with the areas of Energy Savings, Regulation, Energy Quality and Savings, Distribution and Alternative Sources. Although Science and Technology-oriented, the Electrical Engineering Program also offers the base for a humanistic and social education that allows students to play a distinguished role in society.

IMT UNDERGRADUATE STUDENTS OF ALL ENGINEERING PROGRAMS PURSUE THE SAME COURSE PATH DURING THEIR FIRST YEAR OF STUDY. WHEN PROGRESSING TO THEIR SECOND YEAR, STUDENTS CAN CHOOSE THEIR MAJOR.

THE PROGRAM OFFERS:

- The best laboratory infrastructure in Brazil, with state-of-the-art equipment and software;
- Integration between theory and practice: students involved in project development since their first year;
- Development of integrated projects involving all Engineering disciplines, Design and Business Administration;
- Contact with the job market: projects developed in partnership with businesses, solving real-world problems;
- Integration with the Research Center, which offers opportunities for internships and job placements in companies from several industries;
- Opportunity to be in constant contact with professionals already working in the field through lectures, workshops and events.
- Flexible learning path, allowing students to guide their education;
- Development and analysis of Electrical Engineering projects, using computer and lab simulations and studies of real-life situations in the field;
- Several opportunities to participate in academic competitions, technological studies and undergraduate research;
- Differentiated curriculum that allows students to develop new skills: communication, collaboration, creativity, innovation, critical thinking, problem solving, planning and management, diversity, and much more.
- Innovation, Leadership and Entrepreneurship Week, integrating the Engineering, Design and Business Administration fields;
- Technical visits to hydroelectric power plants, thermoelectric plants, solar photovoltaic farms and electrical equipment manufacturers.

AWARDS AND ACCREDITATIONS

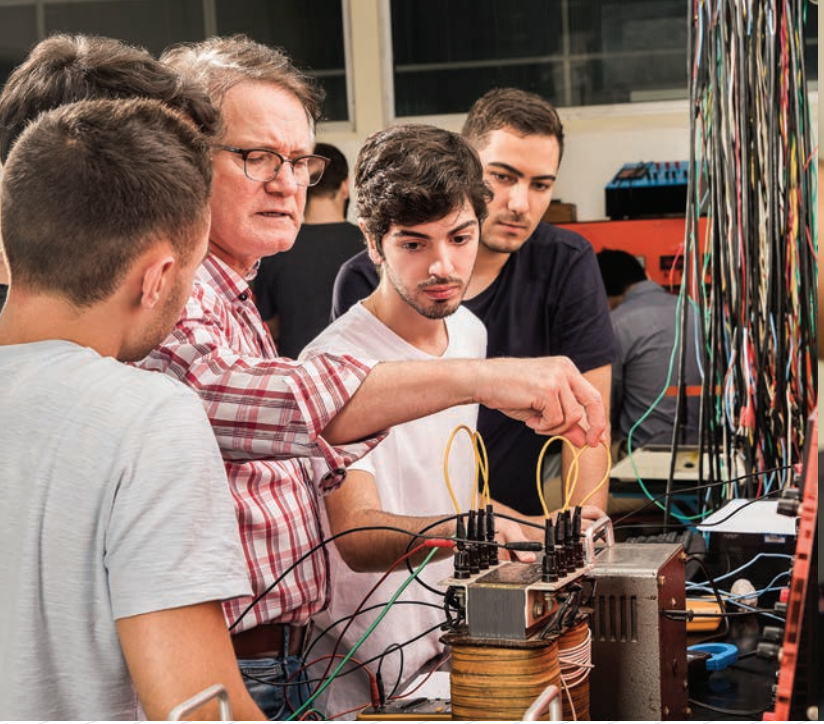
- 4 stars in Guia do Estudante;
- Score of 4 (out of 5) on the National Student Performance Test (Enade);
- Partnership with renowned multinational companies;
- Student teams have won numerous academic competitions: Baja SAE, Fórmula SAE, SAE Aerodesign and the Energy Efficiency Collegiate Marathon.

SPECIAL PROJECTS AND ACTIVITIES

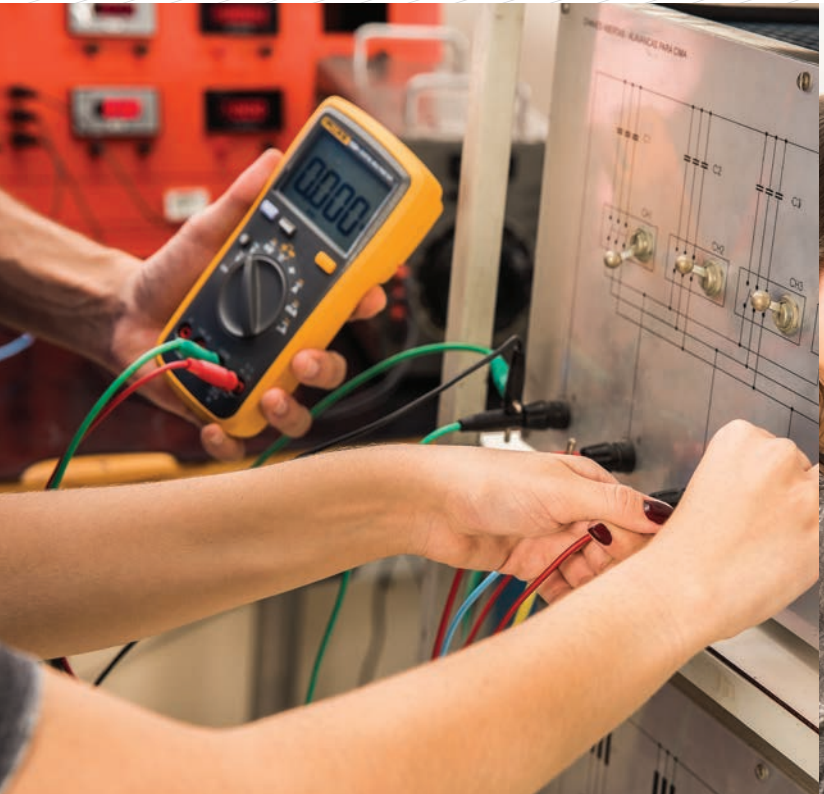
In addition to conventional classes, students engage in essentially practical projects and activities in which they must work in groups composed of students enrolled in different programs and program years. There are more than a hundred projects and activities in progress, which take advantage of the excellent infrastructure available at IMT.

ACADEMIC COMPETITIONS

- Aerodesign
- Model Aircraft
- Baja Mauá
- Concreto Mauá
- Gravity Car Race
- Inova Mauá
- Eco Mauá
- Mauá Racing
- Robótica Mauá
- Mauá Júnior - Student-led non-profit trategy consulting firm
- eSports Mauá




CHAVE
MANUAL.-01
CHAVE
MANUAL.-02



PARCERIA

COM **INSTITUIÇÕES ESTRANGEIRAS**

GRADUAÇÃO-SANDUÍCHE

Acordo de cooperação (com a possibilidade de bolsas de estudo parciais ou integrais) com diversas instituições estrangeiras, no qual os alunos cursam um semestre ou um ano numa instituição no exterior, vivenciam uma experiência internacional e têm a possibilidade de aproveitar os estudos quando voltarem ao Brasil.

PROGRAMA BRAFITEC QUE OFERECE BOLSAS DA CAPES PARA INTERCÂMBIO NA ÉCOLE SAINT-ÉTIENNE (FRANÇA)

PARCERIA COM INSTITUIÇÕES ESTRANGEIRAS

IMT KEY FEATURES

Built on over 130,000 square meters, São Caetano do Sul campus offers some of the best-equipped higher education facilities in the country.

Over 100 laboratories – two labs per conventional classroom –, including the brand-new Fab Lab.

Comfort and safety – the campus has several cafes, snack bars and different social areas, as well as free parking for approximately 1,400 vehicles.

Several exchange programs offered in prestigious international institutions: dual degree agreements, sandwich and study abroad programs. Students can apply for scholarships, and transfer some of their credits back to IMT.

Distinguished academic staff that blends subject-matter experts with extensive industry experience, and professors holding Master's and PhDs from some of the best universities in Brazil and abroad.

A new and innovative educational approach that requires active learning experiences – from outside the classroom – for the purpose of curriculum integration: academic competition, partnerships with the business community, undergraduate research, teaching assistantships, and much more.

An academic environment that includes close cooperation with industry technology development projects involving both the faculty and student bodies.

IMT KEY FEATURES

Activities focused on developing the social and emotional skills students need to succeed in their professional careers.

Special support to help students transition to academic life: assistance available at non-classroom hours, access to vast digital content (video lessons and exercises), tutoring.

Curriculum flexibility, allowing students to choose complementary graduation projects and activities, as well as elective courses.

Minor programs, which provide students with an undergraduate specialization that is both complementary to and distinct from their main major, in areas such as Project Management, Business Management, Design and Innovation, Energy and Sustainability (programs revised on an annual basis).

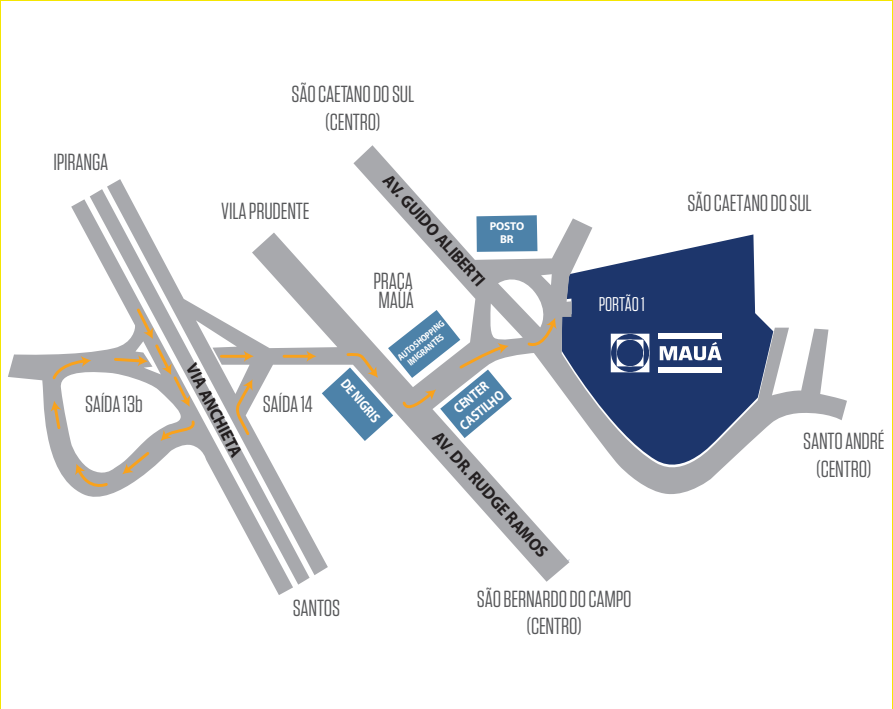
A teaching philosophy focused on preparing students for innovation and entrepreneurship, developing projects that integrate Management, Design and Engineering.

Partnerships with the business community and mentoring by experienced executives to assist students with their term papers, adding a strong business focus, and connect their research to the marketplace issues and routine.

Undergraduate research opportunities offered in several IMT research groups that make significant contributions to scientific and technological advancement.

SÃO CAETANO DO SUL CAMPUS

CAMPUS DIRECTION MAPS



Praça Mauá, 1
São Caetano do Sul, SP
Postal code (CEP) 09580-900

0800 019 3100

INSTITUTO MAUÁ DE TECNOLOGIA
MAUÁ

maua.br