



GRADUATE SCHOOL OF ENGINEERING

**Revealing Talent and Insight - Fostering Innovation
Developing Competence - Creating Competitive Advantage**

ARCHITECTURAL ENGINEERING | BANKING FINANCE AND INSURANCE | BIOMEDICAL ENGINEERING | BUILDING AND CIVIL ENGINEERING |
CHEMISTRY AND CHEMICAL ENGINEERING | COMPUTER SCIENCE AND INFORMATION TECHNOLOGY | ENERGY HABITAT AND ENVIRONMENT
| ENERGY ELECTRICAL SYSTEMS AND CONTROL SYSTEMS | ENTREPRENEURSHIP | MANAGEMENT OF INNOVATION |
INDUSTRIAL AND LOGISTICAL OPERATIONS MANAGEMENT | MECHANICAL DESIGN AND ENGINEERING | MECHATRONICS |
TEXTILES INNOVATION TECHNOLOGY AND INTERNATIONAL MANAGEMENT



STUDY AT HEI

HEI, Engineers for the world of today and tomorrow HEI was founded in Lille in 1885, by the Industrial Leaders of Northern France, to meet their engineering and managerial needs. HEI has since extended its activities to the training of versatile engineers, open-minded to the world, humanistic in managerial approach with the added plus of an international and intercultural profile. HEI's vocation is to develop the values of responsibility, integrity and diligence in carrying out projects and managing teams of all sizes and all international and intercultural dimensions.

Some 130 years later, the school continues this mission through three core activities: the training of engineers and

executives, industrial applied research and development and the providing of extension services to the business world including technology transfer.

Since the creation of the school, these dimensions have defined the identity of HEI.

We coach each student, personally, in the design and completion of his or her personal and professional project, enhancing learning outcomes in line with the needs, expectations and requirements of the global economic world. In other words... HEI is at the service of the private business and industrial sectors, revealing individual talents and insight, fostering innovation, developing and creating competitive.

HEI IN FIGURES

1885

Founded

1935

Accredited by the "CTI": The French National Committee for Engineering Education



2 300 Current students

200 Full-time teaching staff

16 000 Alumni



14 Majors

350

International traineeships



110

Partner universities

260

Annual international semester exchanges

3

Campuses



4

Research disciplines

NETWORKS

HEI is a founding member of the largest private multidisciplinary university in France: Université Catholique de Lille and the group HEI ISA ISEN. HEI is also active within the FESIC, the CGE, Campus France, N+i, EAIE, NAFSA, APAIE and the N.E.W.S. consortium Europe/South East Asia. The HEI alumni network organizes several events throughout the world to develop professional relationships and bonding between members. It furthers contact and assists in finding work for new graduate students.

A FIVE-YEAR CURRICULUM

• GENERAL COURSE

(3 years – Bachelor's degree)

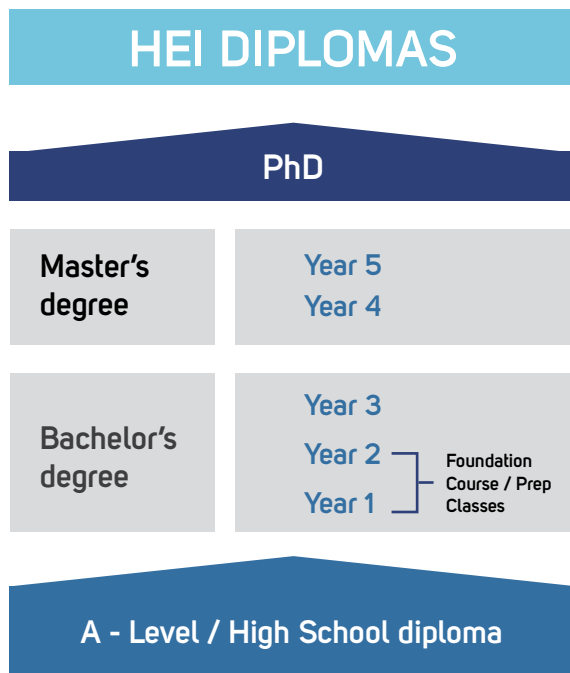
The first two years entail in-house Foundation Course / Prep Program. During the 3rd year, students organize their time into 4 main activities within a holistic, multidisciplinary approach:

- Science and Engineering environment
- Management and business
- General studies, ethics and communication
- Personal development

• PROFESSIONAL COURSE

(2 years – Master's degree)

During the first year, students pursue their 4 main activities and also choose one of the 14 different fields of specialization.



5 REASONS TO COME TO HEI

- 1 . An accredited degree of acknowledged prestige:** Our graduates are renowned as HEI engineers throughout the world in all areas of specialization. HEI carries a reputation with leading companies Worldwide. They are also well versed in teamwork, organization and structure, leadership, and project management, with clear, precise communication skills.
- 2 . Close interaction with students to define professional prospects on a one-to-one basis:** this allows the successful completion of a personalized program. Successful engineers immediately take on management responsibilities within the industry, or choose to further develop their skills in graduate school completing a Master of Science or a PhD.
- 3 . An incredible network for students:** In collaboration with HEI ISA ISEN Group, HEI provides students with a consolidated structure, promoted under one brand: ADICODE®: a workshop for Innovation and Codesign, where students and companies work to address emerging Challenges.
- 4 . Community life is rewarding at HEI:** with more than 60 student clubs to share hobbies of culture, sport, humanitarian pursuits, games, business start-ups and other interests. For example, Cosmopol'Heite, the International student association, creates a bridge between students of all origins by organizing social activities and trips, making the welcome to HEI warm and inviting and also helping students by providing a variety of services.
- 5 . A spirit which has grown for over 130 years:** HEI, for over a century, has developed a large alumni network connecting students and companies, both national and multinational, in all business sectors, all around the world.



RESEARCH AND DEVELOPMENT: A CORE ACTIVITY

The HEI Research Center is a member of 9 accredited laboratories with expertise in 4 areas on which HEI's reputation has been built:

- Electrical Power Networks and Intelligent Transport
- Innovative Materials
- Sustainable Health and Chemistry
- Energies, Habitat and Environment

FIELDS OF STUDY



Architectural Engineering

Key courses: Building regulations, Steel and wood structures, Home comfort, Architectural modelling, History of architecture and construction.



Banking Finance and Insurance

Key courses: Financial analysis, Banking techniques and products, Insurance techniques and products, International finance, Financial and banking risk management.



Biomedical Engineering

Key courses: Hygiene and bio infection, Human-Machine Interaction Conception, Physical principles in medical imaging, Web technology and programming, Ergotherapy and Biomechanics, Health international economy.



Building and Civil Engineering

Key courses: Building, Structures design, Concrete design, Soil design, Materials, Road, Acoustics, Building law, Heat transfers, Public works, Infrastructure.



Chemistry and Chemical Engineering

Key courses: Process engineering, Environmental health and safety, Process manager, Production manager, Engineering company.



Computer Science and Information Technology

Key courses: Web development, Fundamental soft object oriented-programming, Software architecture, Business intelligence, Computer networks, Software engineering and methodology.



Energy Habitat and Environment

Key courses: Town planning / transport management, Water and waste management, Eco-renovation and architectural quality, Dynamic analysis of buildings, Building management systems, Renewable energy.



Energy Electrical Systems and Control Systems

Key courses: Energy and generation of electric energy, Power grid electrical engineering, Robotics and Vision, Signal processing, Electricity distribution networks and smart grids, SmartBuildings, Fuzzy logic and energy management systems.



Entrepreneurship

Key courses: Entrepreneurial creativity, Marketing of innovation, Negotiations, Industrial property, Social and environmental responsibility.



Management of Innovation

Key courses: Introduction to innovation, Spirit of innovation, Innovation process, Co-design workshop, Fab lab: 3D printing, Intellectual property.



Industrial and Logistical Operations Management

Key courses: Supply chain management, International and multimodal transports, Efficiency and performance of production systems, Industrial risk management, Purchasing management.



Mechanical Design and Engineering

Key courses : Advanced design engineering, Mechanics of materials, Eco design, industrialization, Composite and polymer materials.



Mecatronics

Key courses: Mechatronics integration, Robotics, Engineering for systems, Actuators, RAMS - (Reliability, Availability, Maintainability and Safety), Industrial robotics.



Technologies Innovation Textiles and International Management

Key courses: Supply chain management, Textile controls and metrology, Creation innovation fashion, Fibrous materials, Colour science, Knitting, Warp and weft, Technical textiles and nonwovens.

CORPORATE RELATIONS

COOPERATION WITH THE BUSINESS COMMUNITY

Industrial relations are HEI's driving force in every aspect of its activities: teaching and class work, various training periods, Eleven Week Projects, many forms of internship, industrial projects, industrial and private sector involvement on-campus and in our curricula as well as through recruitment forums.

During their studies students must:

- spend three separate periods in industry
- undertake an industrial study/research project within a company or university research laboratory.



IMMEDIATE JOB PLACEMENT IN TOP POSITIONS

HEI students are often recruited prior to finishing their studies. Some of them are hired by top companies such as:

Bouygues, Logica, Eiffage, Renault, Alten, Altran, Cegelec, Sopra, Decathlon, EDF, SOGEA, Toyota, PSA Peugeot Citroen, Rabot Dutilleul, Areva, Total, L'Oréal, Coca Cola, Cap Gemini, Thompson, St-Gobain, Lafarge and 2000 others.

INTERNATIONAL

INTERNATIONAL POLICY

Ingénieurs pour le monde, our motto: developing student engineering talent, meeting economic development, industrial and humanitarian needs throughout the world. HEI fosters diversity and geographical outreach, cultural diversity with an ever growing network of international partners, 120 academic institutions, 2 300 industrial partners in over 100 countries.

MOBILITY

100% of HEI students go abroad. Mobility at HEI is an essential part of the curriculum for double degrees, exchange semesters, internships or humanitarian experiences.

ACADEMIC EXCHANGES

- Partnerships: HEI maintains strong ties with 120 academic partners in 61 countries, actively pursuing a policy of establishing double-diplomas.
- Experience abroad: Students can do a semester or a year abroad during the 4th or the 5th years of study.
- Incoming students: Every year, HEI welcomes international students from partner universities to do a semester or a year of studies at our school. HEI also welcomes degree-seeking international students who want to pursue their studies.





CAMPUS HEI

Founded in 1875, the Université Catholique de Lille is France's largest private university with 25 000 full-time students (2 600 international students) and 5 000 staff members. As a full-service university, it is home to 30 different faculties, engineering institutes, business school, vocational and training colleges. HEI's campus is a combination of historic buildings, high-tech infrastructures and green spaces. HEI also owns two halls of residence close to the university. Students have access to university restaurants and are less than 10 minutes by bus from the city-center.

LILLE: AN IDEAL SITUATION

The Nord-Pas de Calais is the youngest and the most highly populated region of France. Lille offers a dynamic business environment.

Lille hosts a large number of world leading companies in retail and mail order, and attracts the most foreign investment. Second in Insurance, third in Finance, we have highly developed Textile, Automotive and Export Industries. Lille is the 15th largest European metropolis with 2.2 million inhabitants. It is at the bustling epicenter of Europe, encompassing 5 major European cities: Paris, London, Brussels, Amsterdam and Cologne, all less than 2 hours by High Speed train (TGV).



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