



**LOIRE VALLEY
INSTITUTE OF TECHNOLOGY**

INSA | INSTITUT NATIONAL
DES SCIENCES
APPLIQUÉES
CENTRE VAL DE LOIRE

PUBLIC ENGINEERING INSTITUTE PART OF THE INSA GROUP

THE RESULT OF A MERGER BETWEEN THE ENI VAL DE LOIRE AND THE ENSI BOURGES, THE LOIRE VALLEY INSTITUTE OF TECHNOLOGY IS A PUBLIC ENGINEERING INSTITUTE FORMING PART OF THE INSA GROUP.

FROM ITS DUAL CAMPUSES IN BLOIS AND BOURGES IN THE CENTRE REGION, THE LOIRE VALLEY INSTITUTE OF TECHNOLOGY PROVIDES A FIVE-YEAR TRAINING COURSE FOR PLURIDISCIPLINARY ENGINEERS, WITH A HIGH LEVEL IN SCIENCE, HUMANITIES, AND AN INTERNATIONALLY-AWARE ENTREPRENEURIAL SPIRIT.

A FIVE-YEAR ENGINEERING TRAINING COURSE

A COMMON CORE FIRST YEAR

As for all the institutes in the INSA Group, 75% of the first year's training is composed of common core subjects based on three major disciplines:

- fundamental sciences: mathematics, information technology, physical sciences,
- applied and industrial sciences,
- humanities: languages (two compulsory foreign languages), human, economic, legal and social sciences, physical education and sport.

During this first year the studies take place on the Blois campus.

A SECOND PRE-SPECIALIZATION YEAR

The second year's studies continue the common core subjects and are completed by 170 hours' teaching dedicated to the exploration of one of the institute's specializations. Any choice made at this point in no way limits the options of the final orientation made in the third year.

Depending on the pre-specialization option selected, this second year takes place in either Blois or Bourges.

THREE YEARS OF SPECIALIZATION (MASTER DEGREE)

THE LOIRE VALLEY INSTITUTE OF TECHNOLOGY PROPOSES FOUR SPECIALIZATIONS:

- **INDUSTRIAL RISK ENGINEERING (MRI),**
- **INFORMATION TECHNOLOGY AND SECURITY (STI),**
- **INDUSTRIAL SYSTEMS PROCESSING (GSI),**
- **ENERGY, RISK AND ENVIRONMENT (ERE), in partnership with the Hubert CURIEN Centre for Apprenticeship (CFSA) - Cher Chamber**



INDUSTRIAL RISK ENGINEERING MASTER DEGREE (MRI)

Prepares for the different types of risk: preventive actions, corrective actions, respect for work and the environment, corporate responsibility, major and external hazards.

THE 5 OPTIONS:

- > Risk and Industrial Accidents
- > Nuclear Energy
- > Environmental Hazards
- > Risk and Industrial Systems
- > Transport, Production, Robotics

Specialization taught on the Bourges campus

INFORMATION TECHNOLOGY AND SECURITY MASTER DEGREE (STI)

Trains IT engineering to ensure the development and security of all types of information systems. The course provides a solid basis in science and techniques, training in risk management, starting and managing a business and project management.

THE 3 OPTIONS:

- > Software Architecture and Security
- > Systems Administration and Security
- > Ubiquitous Systems Security

Specialization taught on the Bourges campus

INDUSTRIAL SYSTEMS PROCESSING MASTER DEGREE (GSI)

Multidisciplinary training in engineering sciences. Its objective is to produce engineers able to manage an industrial production process as a whole and it includes Research and Development activities, manufacturing processes and support functions (QHSE, maintenance, purchasing, etc.)

THE 4 OPTIONS:

- > Automated Systems, Instrumentation and Industrial IT
- > Production, Processes, Automobile Industry, Transport
- > RAMS and Industrial Systems
- > Industrial Purchasing Engineering

Specialization taught on the Blois campus

ENERGY, RISK AND ENVIRONMENT MASTER DEGREE (ERE)

IN SANDWICH TRAINING.

This training is given in partnership with the Hubert CURIEN Centre for Sandwich Training & Apprenticeship – Cher Chamber.

This specialization trains engineers able to design, utilize and maintain complex systems (human, technical and organisational) that are effective & efficient, safe, reliable and environmentally-friendly.

THE 3 OPTIONS:

- > Risk Governance and Engineering
- > Engineering for Quality and Sustainable Development
- > Energy Efficiency Management

Specialization taught on the campuses of Bourges and the Hubert Curien Centre (Bourges)



APPLIED RESEARCH

Research is one of the Loire Valley Institute of Technology's essential missions. The Institute aims to enhance its relations with the economic world but also to produce new knowledge and advance innovation. This ambition underlies the double role of teaching and research of the majority of its teaching staff. These research activities naturally enrich the pedagogical content of the courses and drive innovation. This scientific policy of the Institute is at the heart of the COMUE – Community of Universities and Higher Institutes of Education Loire Valley University, which includes the University of Orleans, the François-Rabelais University of Tours and the research laboratories of the Centre Region.

The Loire Valley Institute of Technology awards doctorates and co-supervises 4 laboratories:

LMR	GREMAN	LIFO	PRISME
Laboratory of Mechanics and Rheology (Research Group 2640 with the François-Rabelais University of Tours)	Materials, Microelectronics, Acoustics and Nanotechnologies Research Group (Combined Research Group CNRS 7347 with François-Rabelais University of Tours, the CNRS and the CEA)	Orleans Computer Science Laboratory (Research Group 4022 with the University of Orleans)	Multidisciplinary Research Laboratory in Systems Engineering, Mechanics and Energetics (Higher Education Research Group n°4229 with the University of Orleans)

The Institute is involved in 5 competitiveness clusters: Elastopole, Electrical Energy Sciences and Systems (S2E2), Cosmetic Valley, ViaMéca, PACA Risk business cluster.

It coordinates the **National Research Unit for Industrial Risk (PNRI)**.

INTERNATIONAL OPEN TO THE WORLD

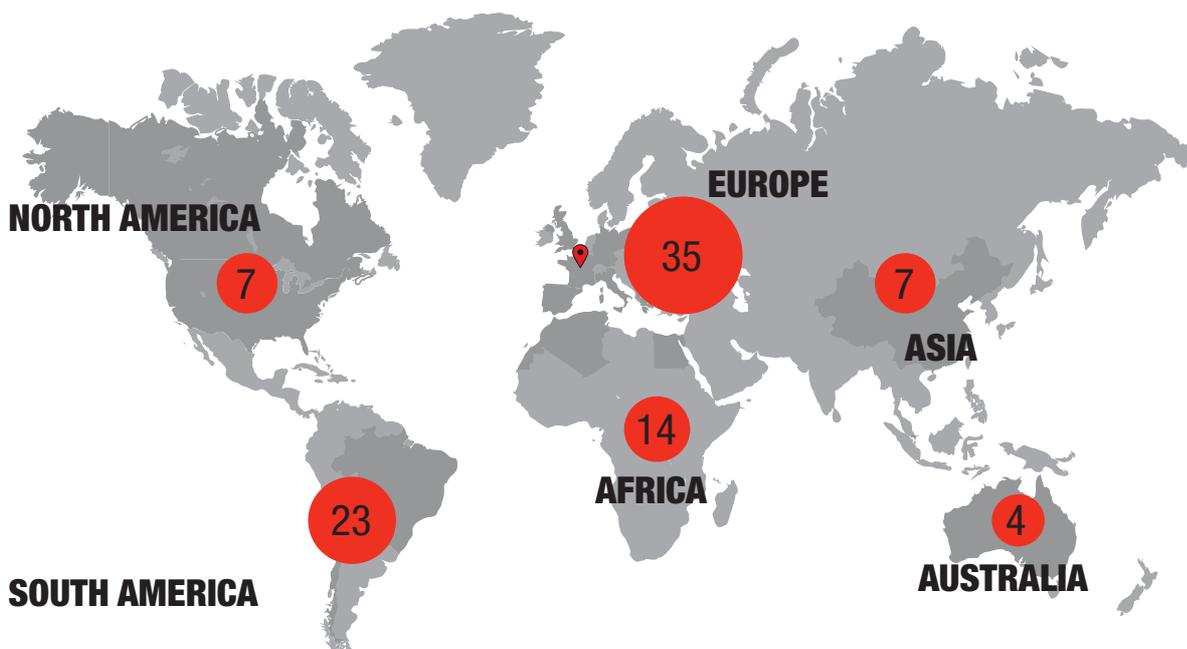
The Loire Valley Institute of Technology prepares its engineers for international careers. Therefore, 100% of its student-engineers spend at least 4 months during their training working and living abroad. The Institute also accommodates foreign students every year. Foreign students represent 19% of the student population.

90 PARTNERSHIP AGREEMENTS IN 30 COUNTRIES have been signed with foreign schools and universities, in Europe, but also in Asia, Africa, North and South America.

13 DUAL DIPLOMA AGREEMENTS exist with Australian, Brazilian, Chinese, Colombian, Scottish and Moroccan establishments.

The Loire Valley Institute of Technology trains engineers who are internationally culturally-aware and proficient in at least two foreign languages. The Institute has dedicated language centres. The language training is intended to develop both linguistic and cultural skills so that the future engineers are able to perform in a multinational context and easily adapt to new work environments.

The Institute is also developing **international research partnerships**.



INDUSTRY & BUSINESS

OUR PARTNERS

The Loire Valley Institute of Technology is pursuing the strong on-going development of its partnerships in the economic world. Such partnerships between industry and businesses and the Institute are formed by reciprocal agreement and are based on a long-term strategy, namely via:

the recruitment of its engineers: organisation of a Business Forum

student-engineer work placements: 11 months' work placement as a minimum during the course of their studies

and collaborative projects: industrial assignments, study projects, conferences, visits of industrial activities...

Among the Institute's partner companies can be found several of the countries' largest groups, but also regional companies: AREVA, ASSYSTEM, ATOS, DAHER, DELPHI, EDF, EUREXO, MBDA, THALES, VINCI... The Loire Valley Institute of Technology can therefore count on the companies of the Centre Region, the sixth largest industrial region in France.

These companies are also stakeholders in the training of the future engineers as demonstrated by their participation in the governing bodies of the Loire Valley Institute of Technology (Board, Council of Studies, and Scientific Council) and through the courses taught by industry professionals. They are also strongly involved in the skills and capabilities observatory.

Actions are also organised by the Institute to assist them in the development of their professional project: former students' forum, job-interview role-playing, trade conferences... as well as a certain number of events to raise their entrepreneurial spirit and awareness of innovation: **"Créa campus"**, **"IT night"** or **"enterprise night"**.





INSA – A PRESTIGIOUS GROUP OF FRENCH ENGINEERING INSTITUTES

- 6 member Institutes in the Group
- LOIRE VALLEY, LYON, RENNES, ROUEN, STRASBOURG, TOULOUSE**
- 3 school partners : ENSCI Limoges, ENSIAME Valenciennes, ISIS Castres

THE INSA GROUP COMPRISES:

- 12 000 student-engineers in training in the Group's different establishments
- 2 500 engineers and 45 architects graduating every year
- 10 % of all the graduate engineers in France
- 78 000 INSA engineers throughout the world
- 1 200 doctorants-es

STUDENT LIFE

With 15 student associations and as many clubs, the INSA student-engineer enjoys a rich sporting, cultural and mutually supportive life. These associations are in turn supported by the Institute, keen to foster the best possible living conditions for its students: **“brain, body and heart”**.

The Loire Valley Institute of Technology is an active participant in the “Cordées de la Réussite” programme intended to give a helping hand to all those who aspire to a higher education.

CAMPUS LIFE

The Loire Valley Institute of Technology has two campuses located in the cities of Blois and Bourges, in the Centre Region of France.

Between the Berry and the Val de Loire, these two cities offer enviable living conditions with ample public transport, historical city centres of exceptional interest, part of UNESCO's World Heritage Sites, in unspoilt countryside.

The Institute offers student accommodation on campus and plenty of green spaces.

Both campuses have strong links with their regional economies.



www.insa-centrevaldeloire.fr

INSA Centre Val de Loire
Campus BLOIS
3 rue de la Chocolaterie
CS 23410 - 41034 BLOIS CEDEX
Phone. + 33 (0)2 54 55 84 00

INSA Centre Val de Loire
Campus BOURGES
88 boulevard Lahitolle - Technopôle Lahitolle
CS 60013 - 18022 BOURGES CEDEX
Phone. +33 (0)2 48 48 40 00

