

Measurement Systems and Applied Business



Measurement systems
Analog and digital
electronics
Signal processing
Optics

Instrumental analytical
chemistry
Marketing techniques
Management sciences

OBJECTIVES

Engineers trained by the department of Measurement Systems and Applied Business are specialists in measurement and analytical instruments in the areas of electronics, physics and chemistry. They benefit from a dual competence that is both technical and commercial, not only enabling them to detect, understand and analyse an instrumental need but also to market and/or develop appropriate solutions.

They are able to offer companies a global solution, combining both commercial and scientific aspects, by analysing the client's requirements in order to propose a multi-dimensional solution (through technical expertise, negotiation with the client, training programs and personally accompanying the client).

Given their multidisciplinary training, they are reactive and can constantly adapt to technological evolutions. Thanks to their varied competences, they can look forward to extremely favourable employment prospects.

PROGRAM

During the program, the student engineer will simultaneously follow:

- > A broad scientific program of study (analog and digital electronics, telecommunication circuits and components, optics, lasers, chemistry...) enabling future engineers to rapidly adapt to new technologies and products.
- > A program in economics and commerce, which goes beyond what is generally offered in traditional engineering schools, enabling the student engineer to acquire notions which are specific to a business program: economic and social environment, sales techniques, management control, finance, taxation, commercial law, international commerce, marketing, project management...
- > The opportunity to acquire and practise communication techniques and to study two foreign languages (with a specialization in business English) completes the program, allowing the engineer to evolve and progress in international contexts.

MAIN PROFESSIONS OPEN TO NEW GRADUATES

Given the broad scientific program offered and the double competence acquired by engineers from this program, they tend to occupy the following positions:

- Business engineer
- Sales manager,
- Application engineer and R&D,
- Marketing manager.

LINKS WITH RESEARCH

The lecturers of this program carry out their research projects with the laboratories of Lille 1 University, which in turn are associated with the school:

- > L'Institut d'Électronique, de Microélectronique et de Nanotechnologie (IEMN),
- > Le Laboratoire de Spectrochimie Infrarouge et Raman (LASIR),
- > L'Unité de Catalyse et de Chimie du Solide (UCCS)

PROJECTS WITH LINKS TO COMPANIES OR LABORATORIES

4th year: Group work on three activities: a technical study, a project that involves monitoring technical and economic developments, and a marketing project.

5th year: Technical project (final year project) in the areas of high value-added measurements.

Length: 2 months (January-February). The technical project can be carried out in the same company as the student's work placement (in this case, the work placement is more akin to a technical / commercial assignment which follows on from the project).

SECTORS OF ACTIVITY AND COMPANIES

Engineers trained by the department of Measurement Systems and Applied Business can be found in all sectors of activity which involve the production, sale and use of measurement and analytical instruments and/or high-level technology, specifically in the following areas:

- > Electronic instrumentation [30 %],
- > Spectroscopic and physico-chemical instrumentation [18 %]
- > Telecommunications, networks and IT [14 %]
- > Business and engineering services [15 %]
- > Transport, research, health, energy, ... [30 %]

The companies for which they work:

AGILENT TECHNOLOGIES, AIR LIQUIDE, ALSTOM, ALTEN, ALTRAN, BRITISH TELECOM, BRUKER, CAP GEMINI, CEGELEC, EADS, EQUIPEMENTS SCIENTIFIQUES, HORIBA JOBIN YVON, IBM, INEO, SUEZ, LASER2000, MICROSOFT, NATIONAL INSTRUMENTS (LABVIEW), OLDHAM, PHILIPS, PSA, RENAULT, SCHNEIDER ELECTRIC, SIEMENS, THALES, UNILOG, VALEO, VEOLIA, VINCI, ...