Bienvenue à Grenoble !

1. Academic landscape
2. Research and Doctoral studies
3. International relationships in EIE
4. Environment

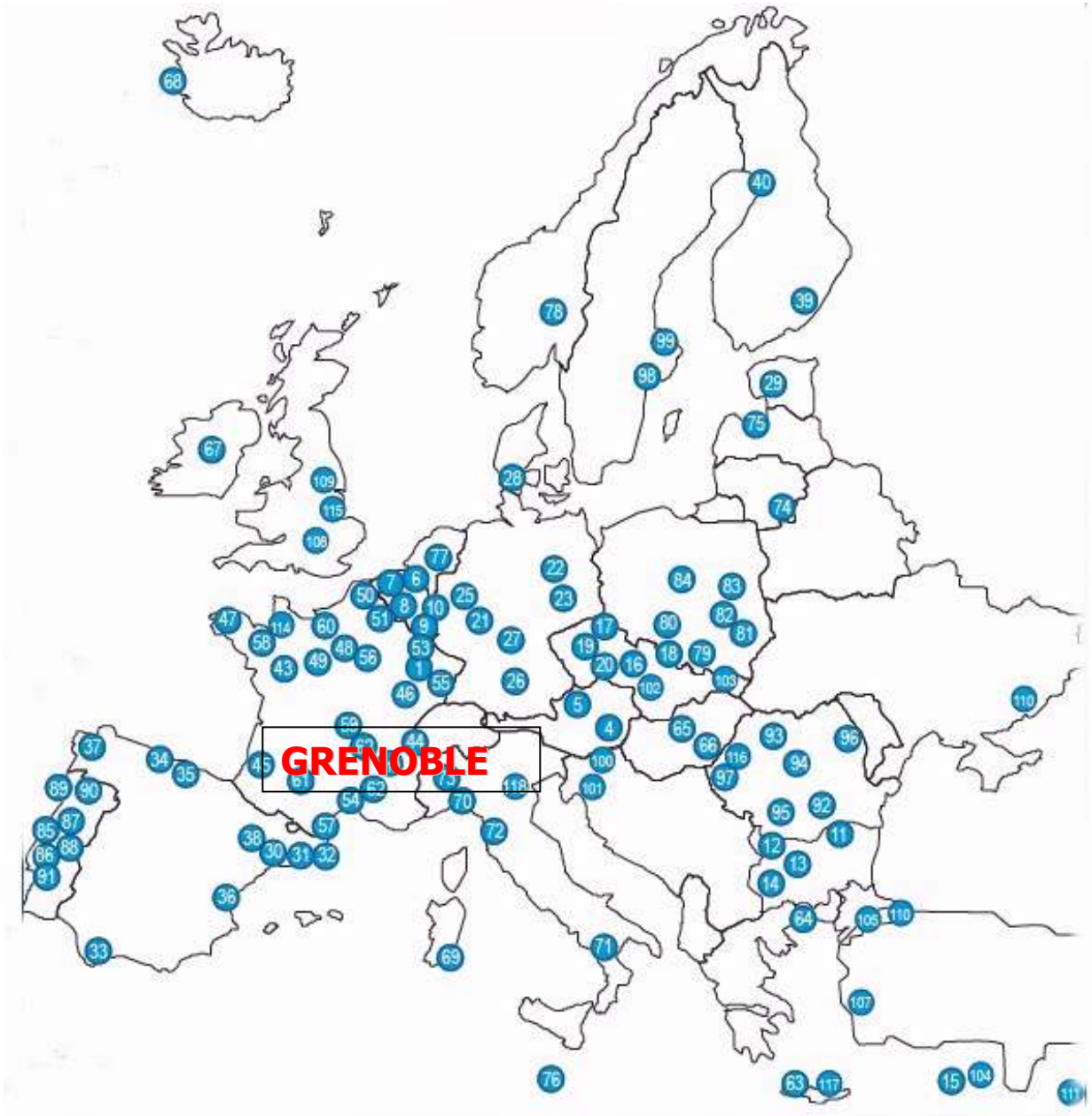
1. Academic landscape

Universities in Grenoble

GRENOBLE UNIVERSITÉS

GRENOBLE
a major university and scientific city in Europe

In the heart of Europe


GRENOBLE

50,000 university students

- 60,000 students in higher education
  - –1 in 5 people living in the Grenoble area is a student
- 4 universities
- 18 engineering programmes
- Graduate schools (Architecture, Art…)

GRENOBLE UNIVERSITÉS

- **Grenoble Universités**
  - **–Université Joseph Fourier** — **18,000 students**
    - **•Science, technology, health**
  - **–Université Pierre Mendès France** — **19,000 students**
    - **•Human and social sciences**
  - **–Université Stendhal** — **7,000 students**
    - **•Languages, literature and communication**
  - **–Institut national polytechnique** — **5,000 students**
    - **•Engineering sciences**

2. Research in Electrical and Information Engineering

Research at the universities

Université Joseph Fourier

- Chemistry
- Electronics, electrical engineering, signal processing
- IT and applied mathematics
- Mechanics
- Mathematics
- Physics
- Earth and universe sciences
- Medicine, health and life sciences
- Social sciences

Université Pierre Mendès France

- Economics, management and sociology of production, law and local government, public policies, urban development
- The new shape of Europe
- Quantitative methods and modeling for social science
- Art, culture and society
- Cognitive science

More than 5,000 researchers

3,000 PhD students

Université Stendhal

- French and foreign literature
- Language and culture
- Linguistics
- Information, communication, man-machine languages
- Structure of the imagination
- Cognitive sciences

INP Grenoble

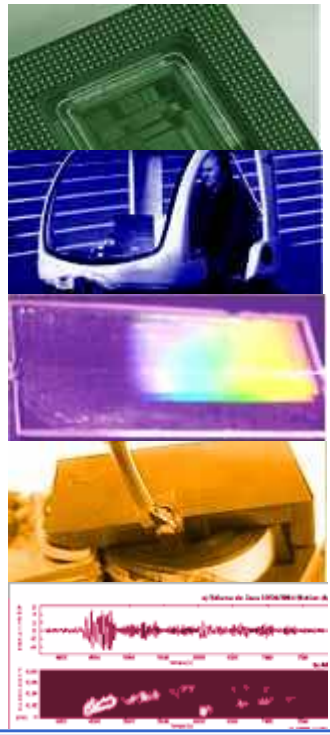
- Energy
- Environment
- Information and Communication Technology
- Materials
- Micro & nanotechnologies
- Production Systems

The EEATS Doctoral school

Electronique, Electrotechnique, Automatique et Traitement du Signal
= Electronics, Electrical Engineering, Automatic Control, Signal Processing

The Grenoble doctoral school EEATS:

- created in 1995
- both of the Grenoble INP (Engineering) and UJF (science) of Grenoble
- different research activities in Grenoble:



Micro and Nano electronics

Automatic Control

Optics and Radiofrequencies

Electrical Engineering

Signal Processing and Telecommunication

Director : Christian COMMAULT
Co Director : Pierre Yves COULON

13 laboratories

The main labs (1/2)

G2Elab		Director: J. Roudet Permanents: 100 **PHD students: 100**	Electrical engineering
GIPSA-lab (former LAG)		Director: J.-M. Chassery Permanents: 142 **PHD students: 130**	Signal processing Automatic Control
IMEP-LAHC		Director: G. Ghibaudo Permanents: 80 **PHD students: 83**	RF, Integrated optics Microelectronics
TIMA		Director: D. Borrione Permanents: 24 **PHD students: 51**	Microelectronics Computer science Micro and Nano systems
INRIA R-H		Director: F. Sillon Permanents: 330 **PHD students: 190**	Computer science Automatic control
LTM		Director: O. Joubert Permanents: 39 **PHD students: 22**	Microelectronics

The main labs (2/2)

LCIS	Director: C. Robach Permanents: 18 **PHD students: 14**	RF, Wireless communication Automatic control Microelectronics
LSP	Director: T. Dombre Permanents: 69 **PHD students: 35**	Solid state physics Optics and lasers Spectroscopy
G-SCOP	Director: Y. Frein Permanents: 65 **PHD students: 57**	Automatic control Production management
Institut Néel	Director: A. Fontaine Permanents: 304 **PHD students: 73**	Photonics, non linear optics MEMS, Quantum optics
Spintec	Director: A. Schuhl Permanents: 24 **PHD students: 14**	Nano magnetism, spin electronics
CEA/LETI	Director: L. Malier Permanents: 998 **PHD students: 150**	Microelectronics Micro systems Photonics - Telecom
CEA-LITEN	Director: D. Marsacq	Electrical engineering Energy, Materials

3. International relationships in EIE

3.a EIE-Surveyor Thematic Network

3.b ILERT US-European Project

3.c International Professional Bachelor in Networks and Communications

ERASMUS THEMATIC NETWORK

- Oct. 2005-Sept. 2008 (coord. *JM Thiriet*, UHP Nancy 1)
- 109 partners + 1 Ukrainian + 1 Libanese
- Levels B-M-D (Bologna process)
- Application of the TUNING methodology to EIE, to identify competences
- Analysis of existing accreditation procedures, proposition of a methodology
- Quality assessment of some pedagogical resources in EIE available through internet
- Observatory on the degrees available in EIE in Europe, and state of the implementation of the Bologna-process

Demand for efficient development of quality Real-Time Software-Intensive Control systems (RSIC)

- Identify a methodology for design and implementation of transatlantic, multidisciplinary engineering program
- Stimulate students to follow careers by encouraging them to consider the area of real-time safety-critical control systems and expose them to opportunities of international collaboration
- Encourage the exchange of staff and students between collaborating institutions.
- Offer multidisciplinary and multicultural experiences to students
- Provide a forum for the faculty teaching in this domain to exchange ideas on the issues of curricula building, laboratory experiments, and assessment activities.
- Create a base for Internet-based educational experience for students in different countries to access laboratory resources exposing them to tools, methods, and techniques used in creation of highly dependable safety critical systems for regulated industry
- Stimulate teaching staff of the European partners to develop and introduce English versions of lectures and teaching materials
- Foster a strong technological research base and develop educational research

Methodology for creation of multinational interdisciplinary curriculum

Partners

ERAU: Embry Riddle Aeronautical University, Daytona Beach FL, USA
US Coordinator:
Andrew J. Kornecki
(kornecka@erau.edu)

AGH: AGH University of Science and Technology, Kraków, Poland
European Coordinator:
Wojciech Grega
(wgr@ia.agh.edu.pl)

BUT: Brno University of Technology
Brno, Czech Republic
Miroslav Sveda
(sveda@fit.vutbr.cz)

LAG: Institut National Polytechnique de Grenoble and Université Joseph Fourier Grenoble, Grenoble, France
Jean-Marc Thiriet
(jean-marc.thiriet@inpg.fr)

Project website:

www.ilert.agh.edu.pl

Toward International Learning Environment for Real-Time Software Intensive Control Systems (ILERT)

Directorate-General for Education and Culture

EU/US COOPERATION PROGRAMME IN HIGHER EDUCATION AND VOCATIONAL EDUCATION AND TRAINING

POLICY ORIENTED MEASURES 2006-2008

Electrical and Information Engineering in Europe

Professional Bachelor
Computer Networks and Telecommunications
« Wireless Networks and Security »

Option 1

- *1 semester in Grenoble + 1 semester in your university within the framework of the ERASMUS exchange programme*

Option 2

- *1 semester in Grenoble + 1 semester industrial placement within a company or a research laboratory*

- ***All courses taught in English***
- *+ an introductory course on French language and civilisation (industrial environment and economy)*

Enrollment

Admission 2007-2008

- Direct registrations (10)
  - 1 Greek, 1 Chinese, 1 Mongolian
  - 3 French who were ERASMUS students last year (2 in Scotland and 1 in Finland)
  - 2 French, 1 French-Canadian
  - 1 French who is all the year in Ireland (ERASMUS)
- ERASMUS exchanges (5)
  - 1 student from Stadia, Finland
  - 1 student from Gliwice, Poland
  - 3 students from Košice, Slovakia

2007-2008

1st week: induction week: students present themselves

Overview of the Education System in Mongolia

- The national education system is divided into several stages, which include both formal schooling and a broad range of non-formal educational training.
- The following are education levels and corresponding formal schooling institutions in Mongolia:
- • Pre-school or kindergarten.
- • K-12 general education breaks down as follows: four years of primary school, four years of secondary school and two years of upper secondary school for a total of 10 years. Basic education (4+4) is compulsory and provided by the state free of charge. **According to the Law on Primary and Secondary Education, adopted in 2002, Mongolia will soon shift to a 5+4+2 structure for a total of 11 years of basic education.**
- • Technical and vocational education is provided by professional training and production centers. In addition, some branches of colleges and universities provide technical and vocational education.
- • Higher education: (**diploma, bachelor's, master's** and **doctorate**) are awarded by colleges, higher-education institutions and universities.

5 years Primary school
4 years Secondary school
2 years Upper secondary school
4-6 years Higher education/university
2 years Master PhD-Doctorate

Why choose WINS Licence in Grenoble?

- It helps open doors of opportunity
- Know other people from other country
- Improve my knowledge in English (good for my professional life) and in network
- Increase my level
- Maybe also to Work in the trade sector

Staff-ERASMUS (WINS)

- Jonita Martelius (Stadia, FI, Communication)
- Jan Ligus, Network (Slovalia, SK)
- Ioannis Iglezakis, Law School of Thessaloniki, Greece

  "Legal framework for information society"
- Giovanni Maria Riccio, Professor of Comparative Law, University of Salerno (IT)
- J. C. Burguillo, Security-Wireless, Vigo (ES)
- Ivana Misakova (EURES European project) – Working conditions in CZ Rep.
- Pierre de Fooz, Security-Wireless, Liège, Belgium

Propositions of training periods abroad

- Haute Ecole Hennequin Sualem de Liège (Belgique)
- Universidade de Vigo (España)
- Technical University of Sofia (Bulgaria)
- Vitus Bering Denmark
- Czech Technical University
- University of Brno (CZ)
- Telemark University (Norge)
- University of Cluj-Napoca (Romania)
- Fraunhofer Institute Ilmenau (Deutschland)
- Technological Educational Institute of Crete (Greece)
- University of Kaunas (Lithuania)
- Hanzehogeschool Groningen, (Nederland)
- University of Coventry (UK)

Many thanks to all of you !

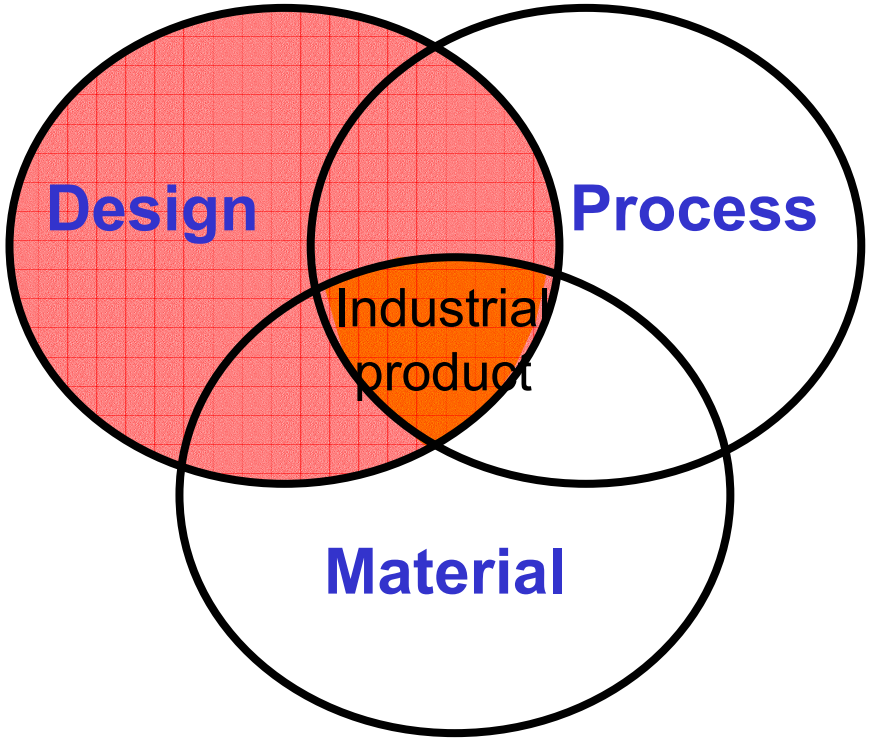
Licence Professionnelle

Final Year of **Professional Bachelor's degree in Industrial Production :**

Integrated Design and Project Management

International class *opening Oct. 2008*

Michel DUPEUX



- Tuition in English
- Small group (12 students)

1st Semester Grenoble

380 hours :

- Advanced knowledge in mechanical engineering
- Languages and communication
- Integrated design (CAD-CAM)
- Production techniques
- Quality control techniques

2nd Semester Grenoble

-13 weeks industrial or laboratory placement

+ 70 hours :

- General knowledge in European firm organization, legislation and economy
- Language

French students

Foreign students (Erasmus or else)

1st Semester :

Partner University

2nd Semester :

70 hours + 13 weeks placement

Partner University

For further information please ***contact****:*

gaetan.fayolle@ujf-grenoble.fr

www-iut.ujf-grenoble.fr

4. Environment

One of the most beautiful campuses in Europe

- 30,000 trees
- 175 hectares of campus

- 40 works of art

An exceptional natural environment

- 3 natural reserves
  - On the outskirts of the city

An exceptional natural environment

- Capital of mountain sports
  - and outdoor activities

Merci pour votre attention !

EEATS Missions

- education of master students

  ≈ 200 students / year

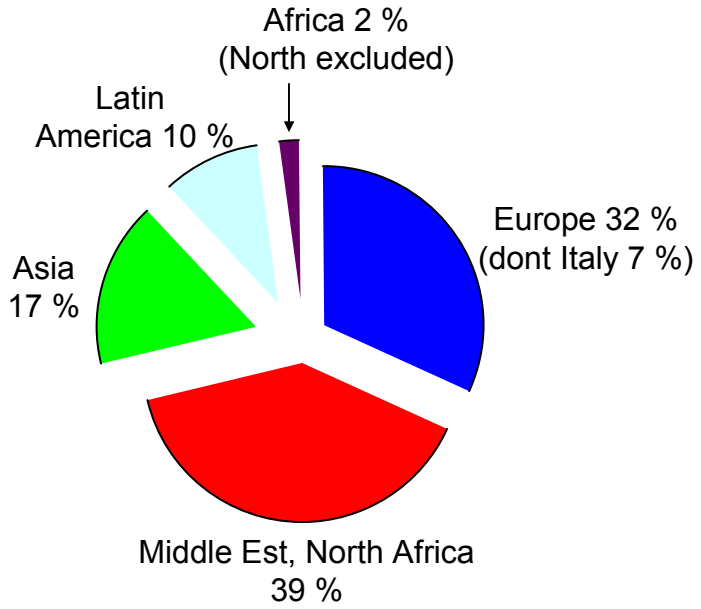
- selection of PhD students

  ≈ 350 PhD students
  ≈ 100 PhD defenses each year

- education of PhD students

  120 hours of lectures with:

Foreign PhD students in EEATS 2004-2005
(39 % of the total number)



- minimum of 40 h of scientific lectures
  (conferences excluded, but summer schools can be included)
- minimum of 40 h of non scientific lectures (e.g. **language courses, preparation for professional insertion)**)

Automatic Control & Image and Signal Processing

- Grenoble Images Parole Signal Automatique
- CNRS UMR 5216
- Former LAG (Laboratoire d'Automatique de Grenoble)

3 departments / 13 research teams / 8 technical and administrative services

gipsa-lab

Control systems

Didier Georges

- Discrete event systems
  Hassane Alla
- Linear systems and robustness
  Olivier Sename
- Nonlinear systems and complexity
  Mazen Alamir
- Biomecanical systems
  Franck Quaine

Images and signal

Christian Jutten

- Signal image physics
  Jérôme Mars, Pierre Olivier Amblard
- Geometry, perception, images, gesture
  Anne Guérin, Annick Montanvert
- Digital communication, signal and security
  Jean-Marc Brossier
- Signal and automatic for diagnosis and condition monitoring
  Suzanne Lesecq, Nadine Martin
- Networked controlled systems
  Carlos Canudas

Speech and cognition

Jean-Luc Schwartz

- Talking machines, conversational agents and face to face interaction
  Gérard Bailly
- Speech, multimodality, development
  Hélène Loevenbruck, Anne Vilain
- Structure of the linguistic code
  Véronique Aubergé
- Acoustics, aeroacoustics, biomechanics and control
  Pascal Perrier

G2E*lab*

Laboratoire de Génie Electrique de Grenoble
Grenoble Electrical Engineering Laboratory

- Institut National Polytechnique de Grenoble
- Université Joseph Fourier
- UMR CNRS 5269

Département Sciences et Technologies de l'Information et de l'Ingénierie (ST2I)

Team and Research groups

- 6 Research teams
  - Équipe EP *Electronique de Puissance* (*Power electronics*)
  - Équipe MADEA *MAtériaux, MAchines et Dispositifs Électromagnétiques Avancés* (*Materials, Advanced Machines and Electromagnetic Devices*)
  - Équipe MAGE *Modélisation, Méthodes, Méthodologies Appliquées au Génie Electrique* (*Modelling, Methods, Methodologies Applied to Electrical Engineering*)
  - Équipe MDE *Matériaux Diélectriques et Electrostatique* (*Dielectric and Electrostatic Materials*)
  - Équipe µ-SYSTEMES magnétiques (*Magnetic Systems*)
  - Équipe SYREL *SYstèmes et Réseaux Electriques* (*Electrical Systems and Networks*)

- 2 Research thematic groups
  - ERT interne CMF *Champs Magnétiques Faibles* (*Weak Magnetic Fields*)
  - GIE IDEA Inventer la distribution de l'Avenir (*Invent distribution of energy for the future*) INPG-EDF-SCHNEIDER