

GENERAL INFORMATION

- Class open on an international basis to:
 - Students who have successfully completed the first two years of a bachelor's degree, in the field of Computer Networks and Telecommunications, or in a relevant field: e.g. Computer Engineering, Electrical Engineering, with some experience in computer networks,
 - Students who wish to further their knowledge and competencies in computer networks, telecommunications, and particularly those interested in wireless networks, mobile telecommunication and their security.
- Students can enrol either for the complete year (in this case, they can get the French diploma) or for one semester. Erasmus students who want to get the diploma (+ ECTS) must pay fees.
- The number of students is approximately 15, including 4 French students.
- Some International lecturers participate within the framework of the Staff-Erasmus exchange programme.

APPLICATIONS

- Campus-France
- For information or application: denis.lubineau@univ-grenoble-alpes.fr
- Documents required for application: resume (CV), cover letter (motivation letter), copies of your results, diploma, certificates, English certificate...

CONTACTS

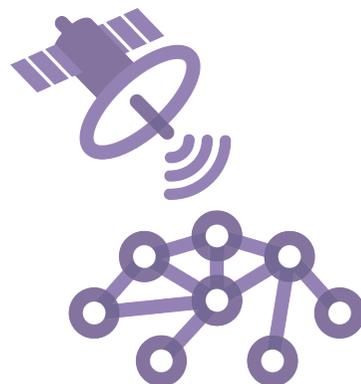
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COMPUTER NETWORKS AND TELECOMMUNICATIONS

Specializing in computer networks, mobility, security



International class
Program 2022 - 2023

Final year of the Professional Bachelor's degree*

*The Professional Bachelor's Degree (Licence Professionnelle) is a French Degree, accredited both by the French Higher Education Department and Professional Bodies. This diploma is in compliance with the Bologna process and is equivalent to a BEng (Hons) with a 4-month placement for option 2.



OPTION 1

1 semester in Grenoble + 1 semester in your university within the framework of a bilateral agreement or ERASMUS exchange programme

OPTION 2

6 months in Grenoble + 4 months on an industrial placement in a company or a research laboratory (option 2 gives the student the possibility of obtaining the French "Licence Professionnelle")

All courses are taught in English with an introductory course to French Language and Civilisation

COURSES	Number of hours 420 + projects	ECTS
1st SEMESTER	360	30
General courses		5
M11: Communication skills	25	1
M13: Language skills (English / Français Langue Étrangère...)	30	2
M14: Project management	30	2
Fundamental scientific and technological courses		9
M21: Computer Networks	30	2
M23: System administration	30	2
M24: Digital communications and trans. medium	40	3
M25: Network Security	30	2
Specialised Scientific and technological courses		12
M31: VOIP – real time flows	15	1
M32: Mobile Transmission systems	40	3
M33: Security of networking infrastructures	30	3
M34: Advanced Computing Networks	30	3
M35: Wireless Networks	30	2
4PT1: Academic project		4
2nd SEMESTER	60	30
M12: Introduction to Internet Legislation	20	1
M22: Database management systems	40	3
4PT2: Academic project audit		5
4ST: Industrial placement in a company or research laboratory		21
<ul style="list-style-type: none"> • 1st semester: 360 hours tuition in the (26 ECTS) + academic project (4 ECTS), • 2nd semester (option 2 only): 60 hours tuition in the 2nd semester (4 ECTS) + 2nd part of Academic project (5 ECTS) + work placement in a company/ research laboratory (21 ECTS) 		30 ECTS per semester

GENERAL SUBJECTS - COURSES 1FLE-M11-M12-M13-M14

1FLE: Français Langue Étrangère: Basics of French language and civilisation
 M11: Essential communication skills, i.e. presentation skills, meetings...
 M12: Basic international Internet regulations and legislation (semester 2)
 M13: English language
 M14: Project management, with accounting and company organisation. This course is strongly related to the Academic project (4PT1)

FUNDAMENTAL SCIENCE AND TECHNOLOGY - COURSES M21-M22-M23-M24-M25

The objective is the acquisition and furthering of competencies in the following:

- networks installations, configuration and maintenance (interconnection systems)
- networks supervision and management
- installation, configuration, maintenance of operating systems, servers, clients
- installation, configuration, maintenance of telecommunication systems, the principles of functioning and the structure of cellular wireless communication networks (GSM, GPRS, UMTS, WiFi, DECT)
- terrestrial or satellite reception system devices
- The fundamentals also include a course in Database Management Systems (semester. 2)

SPECIALISED SCIENTIFIC AND TECHNOLOGICAL COURSES - COURSES M31-M32-M33-M34-M35

These courses are related to more specialised fields in wireless technology (wireless networks, cellular communications) and security. The acquired competencies are:

- IP-telephony, VoIP systems
- installation, configuration and testing of a private wireless telephone network (frequency and time channels, covering, handover)
- installation and configuration of automatic connectors and telephony-computing convergence
- measurement of radio and network parameters on a public wireless network
- installation and configuration of WiFi-type access points and testing of the signal transmission quality
- configuration of terminals and applications for communication in a WiFi network
- choice of solutions among the various technologies (WiFi, GPRS, UMTS)
- risk-assessment and vulnerability of computer networks in general and wireless networks in particular
- installation and configuration of security protocols
- description of the main ciphering algorithms and their use

INDUSTRIAL OR RESEARCH PLACEMENT

For Option 2, the sixth semester of the degree course is mainly a 15-week (minimum) industrial placement, carried out either in a company or in a research laboratory.

1ST WEEK: INDUCTION WEEK

Objective: to help student integration within the International group and in Grenoble.

