ensiie
Paris | Évry-Courcouronnes

ÉCOLE NATIONALE
SUPÉRIEURE
D'INFORMATIQUE
POUR L'INDUSTRIE
ET L'ENTREPRISE

INITIAL ENGINEER TRAINING IN COMPUTER SCIENCE
THEMATIC COURSE

COMPUTER SCIENCE AND SECURITY

SOFTWARE ARCHITECTURE
ADVANCED PROGRAMMING TECHNICS
FORMAL METHODS
FOR SAFE PROGRAMMING
SECURITY AND DIGITAL
BASIS OF COMPUTER SCIENCE

CONTACT
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PARTNERS
MARTE CONSEIL
CEA
CS
ANSSI
MATTERS

GUILLAUME JICQUEL
PROMOTION 2017
Consultant in Cybersecurity,
specialised in industrial field

«I entered the ENSIIE with a University Diploma of Technology (DUT) in computer science. I have followed the common core courses for over a year and a half before specializing in computer science security at Abertay University in Scotland. I performed my last year in a double degree with the FIIL Master. »

AMÉLIE DELGA
PROMOTION 2016
Business Volunteer Programs Abroad in Japan
in Engineering Pricing for the company Société Générale

«The FIIL course helps the students to be more rigorous regarding software conception and tests to create safer software regardless the field of application. »

JOBS OPPORTUNITIES
Conceptions and software development engineer
Formal methods engineer
R&D engineer
Computer science safety expert

EXAMPLES OF INTERNSHIPS
Formal modelisation
of rail engagement using
a synchronous formal language

Retention in safety
conditions
study and realisation
of an assistance solution
to security watch

Study, conception
and development
of a software package solution

Contribution to a
tool finding bugs
in software using a statistical analysis

Study, conception
and realisation
of a multiplatform
software tests solution

Formal proof
in functional analysis

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COMPUTER SCIENCE AND SECURITY

This course is set up for 2nd Year students at the ENSIIE.
From the 3rd semester, a more strengthened specialisation
in computer science is offered, including fundamental teachings
(compilation, formal languages, calculation models), a
material/system architecture initiation, as well as advanced
programming technics (functional programming, based-thread
programming, middleware, ICT) with minors in safety
 programming (software validation and verification, formal
methods for safety software development, reasoned programming),
and digital security (networks security, networks and protocols
security and, information system security, advanced security)

S3
**Computer Science Project
and Agile Methods**
Functional Programming Complement
**Formal System and Languages/ Software
Validation and Verification**
Assembler and Compilation
ICT
Networks Security and Middleware
Operational Research (optional)

S4
Networks and Protocols Security
Exploitation System
Based-thread Programming
Material Architecture
Semi-digital Algorithm
**Formal Methods for
Safety Software Development**
Calculation Models
Information Systems Security
Advanced Object Language (optional)
Privacy Information System by Design (optional)
Operational Research Complement (optional)

S5
Reasoned Programming
Web Semantic and Artificial Intelligence
Advanced Security
Information Research and AI (optional)
Optimisation (optional)

DOUBLE DEGREES

**MASTER DEGREES
COOPERATED WITH
THE UNIVERSITY
OF PARIS SACLAY**

Master **CISE**
Conception, Intelligence
and Software Engineering

**MASTER DEGREES
IN PARTNERSHIP
(ORSAY)**

Master **SECRETS**
Security of Contents,
Networks, and Systems
(Versailles Saint-Quentin)

Other degrees
are possible
with foreign
universities.