Doctoral School Sciences for Engineers  
(Ecole Doctorale Sciences Pour l’Ingénieur SPI-072)

StartDoc

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Scheme

- SPI doctoral school
- Training Courses
- Individual Monitoring Committee
- PhD Defence
- PhD via ADUM
- Questions
SPI Doctoral School
PhD student

- prepares the doctorate (in 3 years) of
- has a student card of

is member of PhD student

has chosen 15 Specialities

ED SPI

Doctoral college

is managed by

is employed by

Institution, company, association

is directed by

1 Supervisor or 2 co-supervisors

is employed by

Institution

is member of Laboratory
630 accredited supervisors

Laboratory

is member of

Supervisor (HDR)

has chosen

is Associate Professor, Professor, Researcher, Research Director of

Institution

belongs to

15 Specialities

ED SPI

Doctoral college
6 institutions in north side of Hauts de France
21 laboratories in north side of Hauts de France

- LISIC - LMPA
- INRIA, CRIStAL, Painlevé, IEMN, L2EP, LAMCUBE, LGCGE, LMFL, UML, GEMTEX, LEOST, ESTAS
- CRIL, LSEE, LGI2A, LML, LGCGE
- IEMN, LAMIH, LAMAV
- URIA, LGCGE

Map of the region showing the location of these laboratories.
Thematic perimeter

Organisation in 6 disciplinary fields

- Inf : Computer science          Pr. L. JOURDAN
- MPMA : Mathematics             Pr. P. DEBES
- GE : Electrical science        Pr. N. IDIR
- MNTAT : Electronics science    Pr. H. HAPPY
- MGCEM : Mechanical science     Pr. A. AMROUCHE
- AGITSI : Control science and Image analysis Pr. L. MACAIRE

- 1 DED (Director of the Doctoral Studies of a disciplinary field) and 1 office with at least 1 member/lab.
  - Review the application to doctoral studies (academic document, funding...).
  - Manage the individual monitoring committees D1-D3.
  - Organise meetings for PhD students.


<table>
<thead>
<tr>
<th>Disciplinary field - DED</th>
<th>Doctorate speciality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer - L. JOURDAN</td>
<td>Informatique et applications</td>
</tr>
<tr>
<td>Mathematics – P. DEBES</td>
<td>Mathématiques et leurs interactions</td>
</tr>
<tr>
<td>Electrical – N. IDIR</td>
<td>Génie Electrique</td>
</tr>
<tr>
<td>Electronics – H. HAPPY</td>
<td>Electronique, photonique</td>
</tr>
<tr>
<td>Electronics – H. HAPPY</td>
<td>Electronique, microélectronique, nanoélectronique et micro-ondes</td>
</tr>
<tr>
<td>Electronics – H. HAPPY</td>
<td>Micro-nanosystèmes et capteurs</td>
</tr>
<tr>
<td>Electronics – H. HAPPY</td>
<td>Acoustique</td>
</tr>
<tr>
<td>Mechanical – A. AMROUCHE</td>
<td>Génie civil</td>
</tr>
<tr>
<td>Mechanical – A. AMROUCHE</td>
<td>Energétique, thermique, combustion</td>
</tr>
<tr>
<td>Mechanical – A. AMROUCHE</td>
<td>Mécanique des milieux fluides</td>
</tr>
<tr>
<td>Mechanical – A. AMROUCHE</td>
<td>Mécanique des solides, des matériaux, des structures et des surfaces</td>
</tr>
<tr>
<td>Mechanical – A. AMROUCHE</td>
<td>Mécanique, énergétique, génie des procédés, génie civil</td>
</tr>
<tr>
<td>Control – L. MACAIRE</td>
<td>Automatique, productique</td>
</tr>
<tr>
<td>Control – L. MACAIRE</td>
<td>Traitement du signal et des images</td>
</tr>
<tr>
<td>Control – L. MACAIRE</td>
<td>Informatique, Automatique</td>
</tr>
</tbody>
</table>
722 PhD students of SPI (2017-2018)

According to the place where the Master’s degree was obtained

- **Highlights:**
  - 71% of PhD students come from outside Hauts de France region.
  - 67% of foreign students.
  - Attractivity of the laboratories (at national and international levels).

- **France** 64.9%
- **Europe** 6.9%
- **Afrique** 10.4%
- **Asie** 9.3%
- **Proche & moyen orient** 4.6%
- **Amériques nord & sud** 3.9%

including 44% from the region HdF
722 Phd students of SPI (2017-2018)

By institution

- UPHF: 18.4%
- Ulille: 53.6%
- UA: 7.6%
- ECL: 3.7%
- IMT: 5.4%

By funding

- Institution contract: 47.0%
- Contrats de recherche: 8.3%
- CIFRE: 10.5%
- Salariés: 3.7%
- Privés: 4.3%

By disciplinary field

- Control: 19.8%
- Electrical: 6.1%
- Computer: 20.2%
- Mechanical: 25.5%
- Electronics: 19.5%
- Maths: 8.9%

Note: The percentages do not add up to 100% due to rounding.
Organisation and governance

- Director and deputy director.
- 6 institution referents.
- 6 DED (supported by the office).
- A board of 26 members.
- An office (12 members).
- An executive committee (7 members day to day business).
- An executive assistant (T. N’Guyen-Prinet) and a secretary (M. Debuysschère) (ULille P3).
Main missions of Doctoral school

- Agreement for PhD registration in one of the 6 co-accredited institutions
  - Documents needed for an application to doctoral studies (transcripts, motivations,...)
  - Funding (proof of funding for the PhD duration)
  - Support letter from the proposed supervisor and agreement of the laboratory director
  - Agreement for the joint supervision and awarding of a double doctoral degree
- Selection of PhD candidates on doctoral contracts awarded by the institutions
- Individual Monitoring Committee (CST) (at D1 for D2 and at D3 for D4)
- Doctoral trainings (with Doctoral College)
- International mobility grants for PhD students (with Doctoral College)
- Agreement for the PhD defense
  - PhD committee and reviewers
  - Reports by reviewers before defense
Not supported by Doctoral school

- PhD annual registration in the institution (ECL, Ulille, IMT, ULCO, UA, UPHF).
- Mobility grants for participation to doctoral trainings or conferences.
- Organisation of the PhD defense.
- Doctoral degree printing.
SPI politics

- SPI admission rules
  - Topic is defined by the supervisors and research unit.
  - HDR supervisors manage a limited number of doctoral students (4 supervised or 9 co-supervised students).
  - Employment contract of 36 months for doctoral study is required.
  - Candidates are selected by SPI through a well defined process and according to demanding academic criteria.
SPI politics

- SPI doctoral students in computer, control, electrical, electronics, mechanical and mathematical sciences
  - conduct training-by-doing research, under the scientific and personalized direction of supervisors within 36 months.
  - are young researchers who are integrated in research units.
  - develop skills beyond their area of scientific expertise.
SPI politics

- SPI rules
  - Before D2: agreement of the individual monitoring committee (CSI).
  - Before defense: a number of training credits (150 h on thematic-methodology and language-professional skills) must be validated.
  - D4 is exceptional and needs a new CSI.
Training courses
Training courses

All PhD students must collect a number of credits following their participation in doctoral training in the three areas:

- Thematic training (summer schools, master classes, training courses organized by the laboratory or SPI);
- Training related to language, research methodology or research tools (organized by SPI or Doctoral College);
- Professional training (organized by Doctoral College).

The number of credits (CFD) to be collected depends on the PhD type:

- **60 CFD** including at least 20 CFD on professional training for a full time PhD student.
- **30 CFD** in three training areas for a PhD student with a joint supervision between two institutions of different countries (co-agreement).
- **40 CFD** distributed in the area of thematic training and research methodology for CIFRE PhD Student.
Registration to training courses (ADUM)

You must have an ADUM account number!
Registration to training courses (ADUM)

- **Training module list**
  - Trainings courses offered by SPI
    - French foreign language
    - English
    - Scientific trainings.
    - December 17th et 18th: Effective reading - Time Management -
  - Transversal training courses offered by Doctoral College
    - Doctors and companies
    - Training courses in English.

- Your ongoing training modules of list
  - 3 states: Enrollment asked, Enrollment accepted, Registered and given credits.
Registration to training courses (ADUM)

- **Add an external training module**
  - Master class, MOOC, summer or thematic school, Member of organization committee of conferences...

- Give the title- category – university and city – topic.
- Add a PDF file with attendance certificate and detailed training program, so that SPI can give credits to you (1CFD/ 3 hours).
Individual Monitoring Committee (CSI)
For all PhD students, an Individual Monitoring Committee (CSI) is set up.

At minimum the committee includes:
- The supervisor and co-supervisors.
- A member of the Doctoral school SPI who will be the chairman of the CSI meeting.
- A HDR member who is conducting research activities in the domain of the thesis but who is not a member of the host team, and who will be chosen by the supervisor.
Individual Monitoring Committee (CSI)

- **CSI paper**
  - The PhD student provides a paper on its work, two weeks before the meeting to all members of the CSI.

  - This paper will include a minimum of 7 pages;
    - Brief description of the thesis subject and its goals (min 1/2 page);
    - Main references - state of the art (min 1 page);
    - Progress work in accordance with goals and key results (min 3 pages). A statement of policy regarding results dissemination in terms of publications and software production;
    - A roadmap for the next two years with the expected contributions and a schedule, (min 2 pages);
    - Doctoral Training modules that are followed;
    - Professional project.
Individual Monitoring Committee (CSI)

- **Meeting with CSI includes**
  - Presentation in 20 mn + questions.
  - Meeting between members of CSI and the supervisor (and co-supervisors).
  - Discussion between members of CSI (without the PhD supervision) and the PhD student.
  - At the end of the meeting, a collective report will be written under the authority of the CSI chairman. This report is sent to the DED by email to be posted in ADUM.

- **Calendar 2020**
  - CSI constitution before July 1rst, 2020
  - CSI paper has to be sent 15 days before the meeting.
  - CSI meeting before September 15th, 2020.

- **To register in D2 and D4**
  - The CSI report with favorable decision is necessary.
PhD Defence
Planning (important dates)

- **D – 9 weeks**: Supervisors send the reviewers and PhD committee to the Doctoral School SPI.

- **D – 8 weeks**: Doctoral school SPI gives its agreement about the reviewers and the PhD committee.

- **D – 8 weeks**: Student sends the thesis to the reviewers.

- **D – 4 weeks**: Reviewers send their review to the Institution and the Doctoral School SPI.

- **D – 3 weeks**: Doctoral school and Research President of the Institution give their agreement about the PhD defence.

- **Defence**: Committee President sends the defence report to the Institution.

- **D + XX**: Student sends the final version of the thesis to the Institution.
PhD committee
(cf version détaillée sur le site de l’ED)

- Must be accredited (HDR). A full professor is accredited.

- Must be outside COMUE LNF. No work with supervisors and PhD student during his PhD duration.

- Plus de 50% des membres extérieurs à la COMUE LNF. Un membre extérieur à la ComUE LNF mais ayant financé la thèse ou ayant publié avec le(la) doctorant(e) sera considéré au même titre que les encadrants de la thèse. Les membres doivent être titulaires d’un doctorat.

- Plus de 50% de Professeurs des Universités ou assimilés (attention, un MCF-HDR ou CR-HDR n’est pas assimilé à un Professeur)

- Le directeur et éventuel co-directeur (validés par l’ED lors de la dernière année d’inscription) peuvent participer au jury mais ne prennent pas part à la décision.

- Au moins 1 membre de chaque genre si jury de 4, 5 ou 6 membres. Au moins 2 membres de chaque genre si jury de 7 ou 8 membres.

- Le président du jury est Professeur des Universités ou assimilé (désigné le jour de la soutenance, ce ne peut pas être la direction de thèse).
PhD via ADUM (http://edspi.univ-lille1.fr/index.php?id=5)
Registration Process for D1

1) Create a temporary ADUM ID for academic submission.
   - Read carefully diagram available at SPI website.

2) With your supervisor and laboratory contact
   - Carefully fulfil the PhD application form.
     - Civil status must be the same as in your passport.
     - Thesis progress (research unit, supervisor, ...) cannot change each year.
   - Merge the required documents (marks, proof of funding for the PhD project,..) to provide for an application to doctoral studies at SPI.

3) SPI review (sorry for delay...)
   - Check diploma and academic marks, administrative form, funding and supervision conditions.
   - DED gives agreement so that student can print the documents.

4) Signatures
   - PhD student obtains the signatures of supervisor, co-supervisor and laboratory director.
Registration Process for D1

4) Final SPI review (sorry for delay...)
   - Submit SPI registration with original signed documents: RGPD, registration forms: ‘demande d'autorisation d'inscription’, 'la charte du doctorat' and 'la convention individuelle de formation'.
   - DED and SPI director give an agreement.

5) Administrative registration at your institution
   - Go to the PhD office of your institution.
   - Pay registration fees and obtain your student card.
   - Obtain your final ADUM ID from your institution.

Operations by ADUM
   - Register at training courses available at ADUM. Credit number is managed by ADUM.
   - CSI is managed via ADUM (chairman, download CSI report).
Planning

**D2 and D3 :**
- On line register at SPI (see diagram on SPI web site).
- Obtain your student card from your institution. Online registration via ent.univ-lille.fr for University of Lille.
- Register at training courses available at ADUM.
- Add external training modules.
- Build your Portfolio (validated courses, teaching, PhD title...).
- Prepare your career : upload CV and scientific productions to be displayed via ADUM.

**Defense via ADUM (University of Lille and IMT) :**
- Enter the PhD committee.
- Upload the PhD Thesis.
- Download reviewer reports and defense documents.
The PhD: an exciting job that combines training and research.

Enjoy your PhD!