



Accueil des encadrantes et encadrants  
Ecole Doctoral Sciences de l'Ingénierie et des Systèmes

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Welcome meeting of PhD supervisors  
Doctoral School Engineering and Systems Sciences

March, 13<sup>th</sup> 2023

« *You'll never walk alone* » (Gerry and the Pacemakers, How do you like it, 1963)

# Organization

## Direction

Location: Ecole Centrale de Nantes

Director: Frédéric GRONDIN  
([frederic.grondin@ec-nantes.fr](mailto:frederic.grondin@ec-nantes.fr))

Jean-Hugh Thomas for Le Mans  
([jean-hugh.thomas@univ-lemans.fr](mailto:jean-hugh.thomas@univ-lemans.fr))

3 site co-directors

Caroline Gentric for Nantes  
([caroline.gentric@univ-nantes.fr](mailto:caroline.gentric@univ-nantes.fr))

Abdérafi Charki for Angers  
([abderafi@univ-angers.fr](mailto:abderafi@univ-angers.fr))



# Organization

## Executive assistant

Marie-Line CHAMPIN

([ed-sis@doctorat-paysdelaloire.fr](mailto:ed-sis@doctorat-paysdelaloire.fr))

## Administrative assistants

**Angers site:** Karine COUTURIER

([ed-sis.angers@doctorat-paysdelaloire.fr](mailto:ed-sis.angers@doctorat-paysdelaloire.fr))

**Le Mans site:** Clémence BEAUDRON

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**Nantes site:** Edith DAUVÉ

([ed-sis.nantes@doctorat-paysdelaloire.fr](mailto:ed-sis.nantes@doctorat-paysdelaloire.fr))

# Partner institutions



# Partner institutions

## Doctoral centre assistants

**Ecole Centrale de Nantes & ENSAN & ESB:** Edith DAUVE & Christelle DANAIS  
([ed-sis.nantes@doctorat-paysdelaloire.fr](mailto:ed-sis.nantes@doctorat-paysdelaloire.fr))

**Le Mans Université:** Clémence BEAUDRON ([ed-sis.lemans@doctorat-paysdelaloire.fr](mailto:ed-sis.lemans@doctorat-paysdelaloire.fr))

**Nantes Université:** Céline BRELET ([theses@univ-nantes.fr](mailto:theses@univ-nantes.fr))

**ONIRIS:** Anne HUET ([anne.huet@oniris-nantes.fr](mailto:anne.huet@oniris-nantes.fr))

**Université Angers:** Karine COUTURIER ([ed-sis.angers@doctorat-paysdelaloire.fr](mailto:ed-sis.angers@doctorat-paysdelaloire.fr))

**Université Gustave Eiffel:** Gaëlle LEBOT ([gaelle.lebot@univ-eiffel.fr](mailto:gaelle.lebot@univ-eiffel.fr))

# Partner laboratories

1. UMR CNRS 1563, Ambiances, Architecture, Urbanités (AAU)
2. UMR CNRS 6144, Lab. de rech. en génie des procédés environnement agroalimentaire (GEPEA)
3. UMR CNRS 6183, Institut de recherche en Génie Civil et Mécanique (GEM)
4. UMR CNRS 6004, Laboratoire des Sciences du Numérique de Nantes (LS2N)
5. UMR CNRS 6598, Lab. de Recherche en Hydrodynamique, Energétique et Envir Atmos. (LHEEA)
6. UMR CNRS 6607 Laboratoire de Thermocinétique de Nantes (LTeN)
7. UMR CNRS 6613 Laboratoire d'Acoustique de l'Université du Maine (LAUM)
8. EA 7315 Laboratoire Angevin de Recherche en Ingénierie des Systèmes (LARIS)
9. Matériaux et structures (MAST dept)
10. Géo., envir., risques naturels et sci. de la terre (GERS dept)
11. Aménagement, mobilités et environnement (AME dept)
12. Laboratoire Innovation Bois Matériaux Habitat Apprentissage (LIMBHA)

# Room for Science

1. **Acoustique**
2. **Architecture et Etudes Urbaines**
3. **Automatique**
4. **Electronique**
5. **Energétique-thermique-Combustion**
6. **Génie Civil**
7. **Génie Electrique**
8. **Génie Industriel**
9. **Génie des Matériaux**
10. **Génie Mécanique**
11. **Génie des Procédés et Bioprocédés**
12. **Productique - Mécanique**
13. **Informatique Embarquée**
14. **Mécanique des Milieux Fluides**
15. **Mécanique des Solides, des Matériaux, des structures et des surfaces**
16. **Procédés de Fabrication, Optimisation de Process et de produits**
17. **Robotique**
18. **Signal, Image, Vision**

## 18 Specialties

### 3 DISCIPLINARY FIELDS

Sciences Pour l'Ingénieur  
*Sciences for Engineering*

Sciences Humaines et Humanités Nouvelles  
*Human Sciences and New Humanities*

Sciences et Technologies du Numérique, de  
l'Information et de la Communication  
*Digital, Information and Communication  
Sciences and Technologies*

# LET ME BE A PHD STUDENT

## LABORATORY

- Work planning
- Devices and tools
- Security rules
- Lab life
- Communication of work

## DOCTORAL SCHOOL

- Registration documents
- PhD defense documents
- Training
- Monitoring committee
- Supervision
- Professional perspectives
- Conflict management

**APPRENTICE  
RESEARCHER**

## EMPLOYER

- Holidays and absences
- Salary and employment contract
- Medical assistance
- Workplace harassment

## INSTITUTION

- Scholarship
- Access to students' services
- Diploma



# Let's talk about PhD

Termes à éviter	Termes à utiliser	English
étudiant en thèse, thésard	doctorant, chercheur doctorant, chercheur en début de carrière, jeune chercheur	PhD student
post-doctorant, stagiaire post-doctoral	chercheur, chercheur docteur, docteur contractuel, chercheur contractuel, chargé de recherche contractuel	Junior researcher
post-doctorat, stage postdoctoral	poste / emploi / CDD de chercheur	Researcher position
directeur de thèse	directeur doctoral, directeur de recherches doctorales	PhD supervisor
sujet de thèse	projet de recherche doctoral, projet doctoral	PhD project
bourse	libéralité / contrat de travail, financement, rémunération, salaire	fund
insertion professionnelle	poursuite de carrière, suite de la carrière / du parcours / de la trajectoire professionnelle, évolution professionnelle, reconversion, emploi suivant	Career pursuit
enseignement, cours complémentaires	formations continues	Continuing education

# Assignments of the Doctoral School

- [Arrêté \(decree\) du 26 août 2022](#) sets the national training framework and the procedures leading to award of the national PhD diploma (modifying the [decree of May 25th 2016](#))

The doctoral school:

1. organizes the **training** of future doctors;
2. prepares the PhD students to their **occupational integration**;
3. gives to PhD students a **multidisciplinary culture** within the framework of a coherent scientific project.
4. Contributes to the **international visibility of the doctoral training offer** of the institutions as well as to the structuring of the sites.
5. Ensures that each PhD student receives training in **research ethics and scientific integrity**
6. Sensibilizes PhD students to the challenges of **open science**

# Doctoral School Council

- **Director**: F. Grondin
- **6 Institutions delegates**: Caroline Gentric (Nantes Univ), Abderafi Charki (Angers), Jean-hugh thomas (Le Mans), Cyril Toublanc (ONIRIS), Armelle Chabot (UGE), Sébastien Bourguignon (ECN)
- **7 Laboratories delegates**: Yannick Aoustin (LS2N), Ahmed Loukili (GeM), Judicaël Picaut (AME), Guillaume Ducrozet (LHEEA), Thomas Leduc (AAU), Steven Le Corre (LTEN), Olivier Dazel (LAUM)
- **3 administrative and technical assistants delegates**: Edith Dauvé (ECN), Clémence Beaudron (Univ Le Mans), Karine Couturier (Univ Angers)
- **4 external members**: Sandrine Thuillier (Univ Bretagne Sud), Valérie Donal (IRT Jules Verne), Jean-Vivien Heck (CSTB), (waiting for the fourth 😊)
- **5 PhD students and 5 substitutes**: Benjamin Beaucamp, Abdelhamid Hafidi, Oriane Thiery, Charlotte Beaune, M. Latif, Bastien Boudenne, Angèle Pillot, Mathieu Maréchal, Gabriel Le-Flem, Passa Thomas

Office

# Other Councils

- **PhD committee:** *Frédéric Grondin, Caroline Gentric, Abderafi Charki, Jean-Hugh Thomas, Cyril Toubanc, Armelle Chabot, Sébastien Bourguignon, Thomas Leduc*

Examines applications for registration at the doctoral school (academic quality of the doctoral student, compliance with funding and supervision conditions, quality of the doctoral project).

- **Site committee:** *Representatives of research units*

Examines the defense requests (scientific evaluation of the work, opinion on the pre-proposal of the jury rapporteurs) at least 3 months before the planned defense date.

- **Training committee:** *Director, co-directors, training referents, executive assistant, administrative assistants, doctoral centre assistants, Three doctoral students*

Gives its opinion on questions and draft texts relating to the organization and operation of the doctoral services of the doctoral school.

Examines issues relating to staff and skills, working methods, training related to doctoral activities.

# Fund and registration

## Article 6. Determination of the registration institution of doctoral students

The registration institution is linked to the origin of the funding, the host unit, and possibly the location of the unit's team.

## Article 7. Financial resources of doctoral students orants

Minimum level of resources > SMIC

Minimum of 3 years

Source of funding outside France >80% of the SMIC (The laboratory is studying the administrative possibilities to supplement these grants in order to reach an amount greater than the SMIC).

# Fund and registration

## Article 10.1. First registration and renewals

Enrollment in the first year of the PhD student is decided by the head of the institution on the proposal of the director of the doctoral school, after consulting the PhD supervisor and the director of the research unit.

*(It is preferable to favor registrations from September 1st to avoid paying fees if registration was scheduled after May)*

Annual renewal of registration needs the advice from the PhD supervisor, the director of the research unit and the individual monitoring committee (CSI).

## Article 10.2 Exceptional registration and additional time

Any registration beyond the third year is derogatory!

Request for additional time from the institution needs the advice from the CSI.

Any doctoral student requesting derogatory registration must have completed all of their training hours required by the doctoral school!

## Article 10.4 : Registration beyond the fourth year

Requires the approval of the Doctoral School Council

# Comité de suivi de thèse

## *Individual Monitoring Committee*

### Composition:

- at least two people holding a doctorate not involved in the doctoral research project,
- at least one member who is a specialist in the discipline or in connection with the field of the doctoral project,
- at least one non-specialist member outside the research field of the doctoral research work,
- at least one member from outside the research unit of the doctoral student and either from his registration institution or from the doctoral school.

The composition of the committee is set in the first four months following registration by the direction of the doctoral school on the proposal of the doctoral supervisor in consultation with the doctoral student.

# Comité de suivi de thèse

## *Individual Monitoring COmmittee*

- **Step 1:** The PhD student writes a report on the progress of his work and sends it to the CSI members.
- **Step 2:** The PhD student and his supervision organize an evaluation meeting, face-to-face or by videoconference, with the CSI members.
- **Step 3:** Process of the assessment appointment:
  - The PhD student presents his work to the CSI members and his supervisors,
  - A scientific discussion is conducted (all members are present),
  - The PhD student talks **alone** with the CSI members,
  - The supervisors talk **alone** with the CSI members.
- **Step 4:** The CSI completes the evaluation report, formulates recommendations and signs it. Then, the report will be downloaded on AMETHIS by one member of the CSI. The doctoral school direction will read it and finally the CSI will propose a recommendation for re-registration on AMETHIS.

The **CSI** can meet at any time



# Direction doctorale

## *PhD Supervising*

- Supervisor and co-supervisor require holding the HDR
- Up to 3 supervisors (4 if cotutelle)
- Minimum of 40% for the supervisor
- Maximum supervision rate for the supervisor
- If HDR: up to 6 simultaneous PhD students or 300%
- If not HDR: up to 4 simultaneous PhD students or 200%

# Only 1 exam but a regular monitoring

Article 12. Individual training plan and continuing education

**100 h of continuing education (2% of time)**

- Seminar of 2nd year PhD students
- Ethic training
- Open sciences training
- Professional training
- Scientific training



# Only 1 exam but a regular monitoring

## Six Skills Blocks (Arrêté du 22 février 2019)

- ✓ Block 1: Design and development of a research and development, studies and prospective
- ✓ Block 2: Implementation of a research and development approach, studies and prospective
- ✓ Block 3: Valorization and transfer of the results of an R & D approach, studies and prospective
- ✓ Block 4: International science and technology watch
- ✓ Block 5: Training and dissemination of scientific and technical culture
- ✓ Block 6: Supervision of teams dedicated to research and development, studies and prospective



# Only 1 exam but a regular monitoring

## Portfolio (Arrêté du 25 mai 2016)

A portfolio of the PhD student including the individualized list of all the activities of the PhD student during his training, including teaching, dissemination of scientific culture or technology transfer, and enhancing the skills it a developed during the preparation of the doctorate, is carried out. It is updated regularly by the PhD student

# Only 1 exam

Before the oral defense

After 32 months: file to be sent to the site committee containing the list of accepted, published or submitted publications, the provisional detailed summary of the manuscript, the portfolio in preparation.

12 weeks before the defence: file to be sent to the site committee containing a proposal for a jury and rapporteurs, the opinions of the individual monitoring committee since the start of the PhD, the list of scientific productions of the PhD student (publications, communications, patents, etc.) and its portfolio.

8 weeks before the defence: file to be sent to the site doctoral center containing a proposal for a jury and rapporteurs, the opinions of the individual monitoring committee since the start of the PhD, the list of scientific productions of the PhD student (publications, communications, patents, etc.), his portfolio and the complete manuscript.

# Only 1 exam

Allowed to defend if...

- All training has been carried out;
- The portfolio is transmitted;
- The manuscript is complete;
- At least the equivalent of a publication has been accepted in an international journal and/or an oral communication with international-level proceedings through a peer review process, presenting the work of the doctoral project (the list of journals and international conferences accepted by the Site Committee is indicated in appendix 4).

# Jury

## Rapporteurs before defense

- Must hold HDR
- Non CSI members
- Outside the Doctoral School and the institution
- Professor Emeritus or MCF HDR Emeritus cannot be a rapporteur

## Defense jury

- Between 4 and 8 members
- At least half outside the Doctoral School and the institution
- At least half of the jury is made up of professors or assimilated
- At least one member of the institution
- Supervisors do not take part in the deliberation
- Only 1 guest possible but not part of the jury
- Supervision member(s) cannot be guest member(s)
- Emeritus Professor is not part of the professors or assimilated quota
- President of the jury is a professor or assimilated

If cotutelle supervision, the rules are those defined by it

# Oral defense

Public! (If confidential, then an exemption is requested 12 weeks before the defense; it may be granted on an exceptional basis by the institution chief)

## Article 13.3 Oath of Doctors

At the end of the defense and in the event of admission, the person obtaining the title of doctor takes an oath, individually (article 19 bis of the decree of August 26, 2022) and undertakes to respect the principles and requirements of the scientific integrity in the rest of his professional career, whatever the sector or field of activity.

The doctor's oath of scientific integrity is as follows:

« En présence de mes pairs. Parvenu(e) à l'issue de mon doctorat en [xxx], et ayant ainsi pratiqué, dans ma quête du savoir, l'exercice d'une recherche scientifique exigeante, en cultivant la rigueur intellectuelle, la réflexivité éthique et dans le respect des principes de l'intégrité scientifique, je m'engage, pour ce qui dépendra de moi, dans la suite de ma carrière professionnelle quel qu'en soit le secteur ou le domaine d'activité, à maintenir une conduite intègre dans mon rapport au savoir, mes méthodes et mes résultats ».

*"In the presence of my peers. With the completion of my doctorate in [xxx], in my quest for knowledge, I have carried out demanding research, demonstrated intellectual rigour, ethical reflection, and respect for the principles of research integrity. As I pursue my professional career, whatever my chosen field, I pledge, to the greatest of my ability, to continue to maintain integrity in my relationship to knowledge, to my methods and to my results"*



# Mediation

## In case of conflict?

1) Director of the research unit: look for a solution.

## In case of failure...

2) Director of the doctoral school: calls on a mediation group made up of at least two members of the doctoral school council, including a representative of the doctoral students.

## In case of failure...

3) Head of the institution: appointment of a new mediator

## In case of further failure...

4) A final appeal may finally be lodged with the Head of the institution.

## Ethical problem?

If the conflict includes questions of ethics and/or scientific integrity, the director of the doctoral school liaises with the person responsible for scientific integrity at the institution where the PhD student is registered.

The PhD student, a member of the doctoral supervision, or the director of the research unit can also contact the person responsible for scientific integrity at the institution, if necessary.

# QUESTIONS ?

## website

<https://ed-sis.doctorat-paysdelaloire.fr/>

## Direction

[Ed-sis@doctorat-paysdelaloire.fr](mailto:Ed-sis@doctorat-paysdelaloire.fr)

## Co-direction - Angers

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## Co-direction - Le Mans

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## Co-direction - Nantes

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