



Journée d'accueil des doctorantes et doctorants de
l'Ecole Doctoral Sciences de l'Ingénierie et des Systèmes

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Welcome meeting of the PhD students of the
Doctoral School Engineering and Systems Sciences

November, 22th 2022

“Oh, I'm an alien, I'm a legal alien” (Sting, Englishman in New York, Nothing like the sun, 1987)

YOUR FIRST DAY IN THE PHD WORLD



YOUR FIRST DAY IN THE PHD WORLD

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

« *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)

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

3 site co-directors

Caroline Gentric for Nantes
(caroline.gentric@univ-nantes.fr)

Abdérafi Charki for Angers
(abderafi@univ-angers.fr)



Organization

Executive assistant

Marie-Line CHAMPIN

(ed-sis@doctorat-paysdelaloire.fr)

Administrative assistants

Angers site: Karine COUTURIER

(ed-sis.angers@doctorat-paysdelaloire.fr)

Le Mans site: Clémence BEAUDRON

(ed-sis.lemans@doctorat-paysdelaloire.fr)

Nantes site: Edith DAUVÉ

(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)

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

Nantes Université: Céline BRELET (theses@univ-nantes.fr)

ONIRIS: Anne HUET (anne.huet@oniris-nantes.fr)

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

Université Gustave Eiffel: Gaëlle LEBOT (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)

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 😊)
- **And the best ! 5 PhD students' delegates**

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*

*“I'm walking away from the troubles in my life
I'm walking away, oh, to find a better day”* (Craig David & Mark Hill,
Walking Away, Born to do it, 2000)

What is a PhD thesis?

▶ **A work ...**

- ✚ Long: 3 years (no more!)
- ✚ Demanding: scientific quality, personal investment

▶ **... of research ...**

- ✚ Progressive building
- ✚ Needs to be well defined
- ✚ Discussion with other researchers
- ✚ Training

▶ **... that comes in the form of ...**

- ✚ A manuscript (~150/200 pages) defended publicly in front of a jury
- ✚ Communications (congress, articles, reports, ...).

▶ **... that highlights skills ...**

- ✚ Of very high level
- ✚ Of international rank

▶ **... and it is a recognized sesame for**

- ✚ Access to public and private research careers
- ✚ Significant responsibilities

3 YEARS FOR 1 EXAM

Only 1 exam but a regular monitoring

Comité de Suivi de Thèse (CSI)

A- Each year the PhD student must meet his Individual Monitoring Committee

The CSI can meet at any time

- **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 writes a detailed notice of re-registration which he sends to the PhD student, as well as to the thesis supervisor.
- The report returned to the doctoral school by the thesis supervisor must be signed by the CSI members even if the interview is carried out by videoconference

Only 1 exam but a regular monitoring

**B- Individual training program of 100h
comprising:**

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



Only 1 exam but a regular monitoring

C- 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

D- 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

Schedule

1st year: registration,
first steps in
research, 1st CSI
(<april 23, june 23>),
training, portfolio

2nd year:
communication,
seminar of 2nd year,
2nd CSI (<april 24,
june 24>), training,
portfolio

3rd year:
communication,
writing the PhD
report, oral defense,
portfolio

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

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**

NOW LET'S WORK AS A TEAM



**LA FRESQUE
DU CL!MAT**

TEAMS	ROOMS	nb participants/table
1	B2	8
2	B2	8
3	B2	8
4	B2	8
5	B4	8
6	B4	8
7	B4	8
8	B4	8
9	Hall A	8
10	Hall A	8
11	Hall A	8
12	Hall A	8
13	E238	8
14	E238	8
15	E- Coffee room	8