Track Parallel and Distributed Systems

Welcome!

Master in computer science of IP Paris

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Brings 5 french schools together

- Telecom Paris
- Telecom SudParis
- École Polytechnique
- ENSAE Paris
- ENSTA Paris
Parallel and Distributed Systems track

Parallel and distributed systems

- Consists in distributing the computation over many computing units (from end devices to data centers) connected by networks.
- They are ubiquitous: IA applications, online games, social networks, web services, healthcare simulation...
Parallel and Distributed Systems track

Goal of the track: understand how parallel and distributed systems are built

• How we can make them efficient
• How we can make them maintainable
• How we can make them correct

Learn distributed systems from both a theoretical and a practical point of view
Organization

The courses mostly comes from the engineering tracks of the schools of IP Paris

In both M1 and M2 (internship excluded)
- Scientific courses to learn new concepts (~50%)
- Research seminars to know the last scientific advances (~10%)
- Research projects to do research in IP Paris’ labs (~40%)

In M2
- An internship of 6 month in a research lab
- Starts between february and march
- A student can choose a research lab of IP Paris or of any other institute
The scientific courses

A student can choose any course from the track
  • We don’t distinguish the M1 and the M2
  • But some courses are more basic than others

Very quickly (ideally today!), a student has to choose courses
  • The first course (SLR206) starts the 9 of September

Mandatory ECTS for the scientific courses
  • In M1: 30 ECTS
  • In M2: 22.5 ECTS

Because of COVID: each course has its own organization
  (physical courses, remote courses, hybrid courses)
The research seminar

Goal: learn the last scientific advances of the field

Each week, we have a research seminar the friday morning
  • The students regularly present research papers
  • For some of the seminars, we invite other researchers

Attending the research seminar is mandatory
  • Except if you have another course
  • And of course during the internship

Validation of the research seminar
  • In M1 : 5 ECTS, in M2 : 2,5 ECTS
  • You will have a mark for each of your presentation
The research projects

The research project consists in learning research by doing research
• Between 1 and 4 days each week in a research lab
• Work with professors and PhD students of IP Paris on ongoing research projects
• Mainly projects proposed by the professors of IP Paris, but you can also propose your own research project

Evaluation: through a presentation and a report
• In M1: 25 ECTS, in M2: 7.5 ECTS
The research projects

Schedule

- 11/9/2020: we give the list of the possible research projects
- 18/9/2020: each student chooses a project
- Week of 25/1/2020: mid-term evaluation (M1) or final evaluation (M2)
- Week of 21/6/2021: final evaluation (M1)
The internships

M1 summer internship:
• Not mandatory, just a possibility
• 1 or 2 months during the summer
• Does not give ECTS
• A student can continue his/her M1 research project during the internship

M2 internship
• Mandatory (30 ECTS)
• 6 months, starts in january, february or march
• A student can also continue his/her M2 research project during the internship
• A student can also do an internship in any university
• Can by in a company of clearly research-oriented
And after the PDS track

A student can do a PhD thesis
- 3 years, funded (~1750 euros/month)
- A PhD consists in doing research
- After a PhD, a student can work in a company or in a university (80/90% in company, 10/20% in university)
- Contact your professors to discuss PhD opportunities!

A student can, of course, also work in a company
- Often in a research and development division
- Sometime only in a pure development division
Where is the schedule

- You can find it on the web page
  http://www-inf.telecom-sudparis.eu/COURS/masteripparis/pds/

- For the rooms, you have to check with the professors in charge of the courses
And now...

... let’s choose your courses!

http://www-inf.telecom-sudparis.eu/COURS/masteripparis/pds/?page=../common/courses