

EE-625

Research seminars in Electrical Engineering - FALL

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Cursus	Sem.	Type
Advanced Manufacturing		Opt.
Electrical Engineering		Opt.
Microsystems and Microelectronics		Obl.
Photonics		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
Hours	30
TP	21
Project	9
Number of positions	50

Frequency

Every year

Remark

Next time: Spring 2023

Summary

This course introduces students with current broad research directions in electrical engineering, via a series of weekly wide-audience seminars given by distinguished speakers. The students practice transferable skills including active listening, critical thinking, and scientific communication.

Content

This course propose a series of weekly broad audience seminars given by distinguished speakers in electrical engineering. The speakers are invited from all around the world and are chosen among the very top specialists in their field.

The first goal is to develop a culture of the current research challenges in Electrical Engineering, explained by top experience researchers.

The second goal is to use these seminars to practice transferable skills, including active listening, to develop a broad scientific critical thinking, and to perform scientific presentations on the areas of interest to each student.

The students must attend at least 80% of the seminars (about 14 along the semester). Seminars will be also diffused in a room in the satellite campus. Attendance will be checked by the TAs. Students are encouraged to ask clever questions to the presenter.

The evaluation will take place at the end of the semester. The students will be split in 4-5 thematic groups, depending on their own interests. Each student will prepare a presentation about a potentially impactful research field, discussing in depth the results obtained so far by one of the seminar speakers. They will then make a presentation, based on the attended seminars in the chosen area. The presentations should include the goals and challenges of that particular research field, sharing some critical thoughts about the potential of the field to have impact. They will also practice answering questions asked by peers. The evaluation will be based on peer evaluation results, and moderated by the teacher.

Work load estimation: 14h of seminars, 6h of preparation for the presentation, 8h of active participation and evaluation of each other's presentations.

Note

Various prominent speakers (professors and industrials) in electrical engineering will be invited.

Keywords

Seminars, presentation, active listening, critical thinking.

Assessment methods

Oral exam, presentations.