

EE-625(a)

Research seminars in Electrical Engineering - FALL

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

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

Frequency

Every year

Remark

Next time: Fall 2024

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 during the semester, during sessions dedicated to student presentations. Each student will be asked to do a presentation about their own research field. The students need to be able to present it in 5 minutes to anybody with only a few slides, answering questions like : « Why is my field important ? What's the dream goal/application? What is the field trying to achieve? What are the key scientific challenges? What is worth spending time on, as a researcher in this field? How to illustrate my research field in an accessible way without being too technical? In that field, what's the goal of my work and in what sense it pushes the frontiers of the field ? ».

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

Presentations.