Projects for ETSIST Incoming Students - PROJECT PROPOSAL

Academic year 2024 / 2025

Project description	
Project name: Teaching Assistant in Telecommunication Systems Engineering	
Academic year: 2024/25	Semester: ● Fall ● Spring
Starting date ¹ : 1 Sep 2024 / 1 Feb 2025	Ending date ² : 31 Dec 2024 / 31 May 2025
UPM Centre: ETSIS Telecomunicación	Hours per week: 12

Credits: 6

Supervisor data:

Total hours: 180

Name: Prof. Antonio Pérez Yuste

Department: Ingeniería Audiovisual y Comunicaciones

E-mail: antonio.perez@upm.es Phone: 9106 73385

Project contents and requisite skills

The selected candidate is expected to join the laboratory of Telecommunication Systems Engineering as a teaching assistant for regular classes and to cooperate in the setting up of the equipment, in the preparation of documentation, in the designing of new lab activities based on the use of RF instrumentation, and in the introduction of Software Defined Radio (SDR) systems for new practical activities. Previous knowledge on linear systems, signal processing, noise, analog and digital modulation, data analysis, as well as software programs such as MATLAB, Simulink, Python, and GNU Radio is very welcomed.

Expected learning outcomes

- Selected candidate will be able to write and speak clearly and persuasively to communicate their ideas in a proper manner.
- Selected candidate will be able to demonstrate written, visual, and/or oral presentation skills to communicate scientific knowledge.
- Selected candidate will be able to work in a group and be part of an effective team.
- Selected candidate will be able to apply techniques to solve simple problems and obtain valid solutions.
- Selected candidate will be able to judge the reasonableness of those solutions.
- Selected candidate will be able to select the appropriate method for teaching students in a practical context.

¹ Note that the starting date cannot be before the beginning of the lectures in the corresponding semester

² Note that the ending date cannot be after the last exam in the corresponding semester

Rules for students

- a) To join the project, to follow the rules and schedule agreed with the supervisor, and to duly justify any possible absence.
- b) To carry out the activities specified in the project schedule and to keep the necessary contact with the supervisor.
- c) To inform to the Internship Coordinator at ETSIST, or to the Mobility Office, of any event or complaint that may arise in the development of the project.
- d) To send to the Internship Coordinator at ETSIST an interim report (Annex II), a final report of the work carried out (Annex III) and the satisfaction questionnaire of the internships, according to the forms and the deadlines set in the annexes of this regulation.
- e) To maintain the confidentiality of the internal information of ETSIST, Department or Center to which they have got access, as well as to not exploit the work carried out in the project without express authorization.