

Dear colleagues, partners and students,

greetings from the Telecommunication Engineering School (www.teleco.uvigo.es) at Vigo University (www.uvigo.es) - Spain.

Though the deadline at Vigo University for receiving the application form for next-year erasmus students (annual stays or for the 1st semester) is the end of june 2012/13, we would like to bring closer to your students some info of what can they do in our Engineering School in order to take into account at time they have to decide their destination.

First of all, let me say that lectures are taught in spanish (both in master and bachelor), so a minimum basis of our language must be had in order to follow the explanations. Nevertheless, those students that cannot understand spanish might want to know about our rich offer of bachelor and/or master theses, where the working language can be, unquestionably, in english.

In our Telecommunication School we offer the following degrees:

- * Engineering Degree in Telecommunication Technologies (GETT),
https://seix.uvigo.es/docnet_2.2/docencia/osd/pdf/descarga_pdf.php?pdf_ensenyament=190&pdf_a_ny_academic=2011_12&idioma=eng

that is a bachelor level degree ("four years" program) following bologna paradigm. We offer four specialities and our students have to decide/choose one of them in the third course (we mean, the first two years are common). Such specialities are: "Telematics" (computer networks and services), "Telecommunication Systems", "Sound and Image" and "Electronic Systems". During 2012/13 we offer the three first courses; including four different "3rd courses" (ten subjects each), one for each speciality just mentioned.

- * Master in Telecommunication Engineering (ET), with specialization either in Telematics, Communications or Electronics. This is a "five years" program (3+2) and during 2012/13 only the specialization courses (the fourth and fifth courses) will still be available, as this program will be discontinued in 2014.

http://teleco.uvigo.es/images/stories/documentos/titulacions/planestudo_305010g.pdf

- * Master in Mathematic Engineering
<http://www.dma.uvigo.es/MASTER/curso0910/index.php>

- * Master in Applications of Signal Processing in Communications (SIGMA)
<http://webs.uvigo.es/mastersigma/cms/>

- * Master/PhD program in Telematics
<http://www.det.uvigo.es/doctorado>

- * Master/PhD program in Radiocommunication and Electromagnetic Engineering
<http://www.com.uvigo.es/master/>

- * Master/PhD program in Signal Theory and Communications

Talking again about the possibility for your students to come and do their thesis with us (either bachelor, master or even PhD) we offer a great variety of fields of study and we can define dynamically the deepness (workload) of the job that the student will have to do depending on the requisites of the university of origin (12, 20, 30 ... ects). Thesis done with us must be defended locally (in the presence of an examining board) and an official transcript will be delivered with the corresponding grade achieved.

In the next lines we just show a sample of different fields/theses that different professors of our School are willing to manage. We have many others, so take them into account only as our ability and disposition to deal with a great variety of different topics/technologies.

1. RFID (Radio Frequency IDentification)
 - *Tests for RFID tag readability around wine bottles
 - *RFID readability under noisy conditions
2. Wireless Sensor Networks
 - *Radio waves propagation measurements within dispersive environments (i.e. vegetation).
 - *Development of propagation models
3. Experimental radio channel characterization
4. RF & Microwave Circuit design
(Design, simulation, construction and test of power amplifiers, filters and signal sources for communications systems)
5. Propagation channel simulator with Matlab
 - * Shadowing and Multipath effects.
 - * Tropospheric effects.
 - * Modeling of satellite links with Matlab
6. Quantum Cryptographic Protocols in Optical Communication
7. Facial image analysis to extract marketing statistics
8. Sign recognition for interactive displays
9. Medical imaging registration
10. My musical mate
(software to run on a tablet that has to be able to recognize what the student plays -from the audio input- and synchronize with a score that would advance automatically).
11. Multirate systems and filter banks with application to communications and signal analysis
12. Theory of Compressive Sampling
(multirate non uniform sampling; multicoset sampling; design and implementation of Analog to Information converters. Application to multiband signals and cognitive radio systems)
13. Development of voice- and text-based interfaces to web contents/services.
 - * Delivering the latest news published on online newspapers through synthesized speech or SMS.
 - * Simple selection and retransmission of podcasts (phonecasting).
 - * Integration with personal information services (e.g. calendars and contact lists).

- * Interaction with Web 2.0 sites (Twitter, Facebook, FMyLife, Forvo, etc).
 - * Interaction with complex sites like skyscanner.es or booking.com .
 - * Exploitation of smartphones? tactile interfaces to enhance access to audio contents.
14. Development of a geolocalization module for Asterisk,
(able to get information from mobile telephony networks and GPS-enabled devices through whichever means).
 15. Development of an integrated environment for the detection of SIP attacks patterns in open-source VoIP software packages (FreeSwitch, Asterisk, Kamailio, ...).
 16. Development of call centers and conference rooms integrated with social networking sites
(especially Facebook).
 17. Development of an HTML5-based softphone.
 18. Social-Enhanced Applications.
 19. Recommendation systems for mobile terminals by means of collaborative tagging in Android / iPhone platforms.
 20. Collaborative eLearning using Intelligent Tutoring Systems.
 21. Simulation of Intelligent Transport Systems.
 22. Chatterbots for social networks (Twitter, Facebook, Google+).
 23. Social Network Software, Social learning and collaborative work platforms.
 24. Social recommendation.
 25. Protocol development in the linux kernel.
 26. Traffic analysis and characterization.
 27. Quality of service in Internet .
 28. Power electronics for renewable energy and electric vehicles.
 29. Networked Distributed Control of Unmanned Ground Vehicles.
 30. Characterization and mitigation of PVT and aging effects in nanometer-scale digital circuits.
 31. Reliability study of microprocessors for security applications.
 32. Reliability evaluation of an electronic system according different standards.
 33. Modeling of a system of human reliability based on competences.
 34.

Do not hesitate to contact me for any question regarding the academic aspects of a possible stay of your students in our School. For other more general questions contact directly with our international office
(http://www.uvigo.es/uvigo_en/administracion/ori/estranxeiros/index.html) .

With kind regards

Raúl Rodríguez