

Programa de Doctorado / *PhD Programme*

Tecnologías de la Información y Comunicaciones en Redes Móviles
Mobile Network Information and Communication Technologies

SEMINAR:

**COGNITIVE RADIO FOR
INTELLIGENT TRANSPORTATION SYSTEMS
(RAILWAYS AND AERONAUTIC)**

SPEAKER:



Iyad Dayoub, is a professor in telecommunication systems from IEMN (Institut d'Electronique, de Microélectronique et de Nanotechnologie) of UVHC (Université de Valenciennes), France. The last decade he has focused on cognitive radio, wireless communications signal detection and hybrid radio optic networks. Since 2007, he has been member of the National Council of Universities (CNU), France, in the area of electrical engineering, electronics, photonics, and systems. He is IEEE Senior member.

OUTLINE:

The dramatic increase in the demand for radio spectrum and the actual low spectral efficiency, due to the traditional static frequency allocation policy, has spurred the development of a next generation wireless technology referred to as cognitive radio (CR).

CR based solution for ITS, in particular railways, has the potential for providing significant benefits, including interoperability, improved spectral efficiency, optimization of radio resource usages, lower deployment and operational costs, and improvement of communications reliability.

We will discuss several contributions to radio environment awareness of a CR device (e.g. spectrum awareness, waveform & modulation awareness, etc.) for the railways context, that is, a high-speed vehicular context, besides difficult electromagnetic environments resulting a heavy-tailed impulsive noise.

We also provide some on-going research projects directly related to CR for IST (Railways and Aeronautic).

DATE AND LOCATION:

Tuesday and Thursday April, 12 th & 14 th 10:30 - 12:30 Location: Seminar P3B2S	Faculty of Engineering Alda. Urquijo S/N 48013 Bilbao
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REGISTRATION AND CONTACT INFO:

For registration details and additional information, contact marina.aguado@ehu.eus.
Doctoral students have priority at registration.