



*Departamento de Ingeniería de Comunicaciones*

## CONFERENCIA

(en el marco del Programa de Doctorado en Ingeniería de Telecomunicación  
y del Máster en Ingeniería de Telecomunicación)

### *Plenty of room at the bottom: Integrating photonic sensors on chip*

impartida por

**Dr. Claudio Otón**

Scuola Superiore Sant'Anna, Pisa, Italia

**Día:** **Viernes, 22 de Abril de 2022.**  
**Hora:** **12:45**  
**Lugar:** **Sala de Grados B**  
**E.T.S. Ingeniería de Telecomunicación**  
**Campus de Teatinos**

#### **Contenido:**

Integrated photonics is becoming a reality in many applications, from telecom to sensing. In particular, the ability to use existing semiconductor fabrication technology to mass-produce photonic integrated circuits can dramatically reduce size, weight, and cost of these systems, opening up many new applications. In this talk he will overview the current state of the art of silicon photonics for sensing applications, including spectrometers, inertial sensors, biochemical sensors, and optical fiber sensor interrogators.

#### **Sobre el ponente:**



Claudio Otón (born in 1978) received the Ph.D. degree in Physics from University of La Laguna, Tenerife, Spain, in 2005. Then, he spent four years in the Optoelectronics Research Centre, Southampton, U.K., where he worked on integrated optical amplifiers and lasers on silicon as a Marie Curie Postdoctoral Fellow. In 2009, he joined the Nanophotonics Technology Center, Universidad Politécnica de Valencia, Spain, where he studied nonlinear silicon photonic devices. Finally, since 2012 he is an Assistant Professor in Scuola Superiore Sant'Anna, Pisa, Italy. His current research topics include optical fiber sensors and silicon photonic integrated devices. He is the author of more than 130 scientific papers and 3 patents. He also collaborates with several industrial partners (Baker Hughes, Brembo, Ericsson, Italian Railway Network, Italian Space Agency) who fund many of the projects he is involved in.