

Programa de Doctorado en Ingeniería Automática, Electrónica y de Telecomunicación  
Universidad de Sevilla



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## ***Anuncio de conferencia***

**Indoor localization and tracking: from  
theoretical foundations to practical  
applications**

**28 de Junio 2018,  
de 10:00 a 12:00**

**en la Sala Juan Larrañeta de la  
ETSI**



This seminar is part of the Distinguished Lecturer Tour (DLT) for Spain of the Prof. Davide Dardari.

***Abstract:***

The need for accurate geolocation has intensified in recent years, especially in cluttered environments (e.g., inside buildings, in urban canyons, under tree canopies, and in caves), where the global positioning system (GPS) is often inaccessible. The talk will provide fundamentals on short-range positioning technologies and discuss some recent progresses in localization and mapping techniques using massive antenna arrays at millimeter waves and battery-less devices. Particular attention will be devoted to low complexity solutions based on backscatter modulation and wireless power transfer. The main results obtained in practical implementations in related European Projects and on the Mars Rover at the European Space Agency will be illustrated.

***About the speaker:***

**Davide Dardari** received the Laurea degree in electronic engineering (summa cum laude) and the PhD degree in electronic engineering and computer science from the University of Bologna, Italy, in 1993 and 1998, respectively. He is an Associate Professor at the University of Bologna, Cesena Campus, Italy. Since 2005, he has been a Research Affiliate at Massachusetts Institute of Technology (MIT), Cambridge, USA. His interests are on wireless communications, localization techniques, and distributed signal processing. He published more than 200 technical papers and played several important roles in various National and European Projects. He received the IEEE Aerospace and Electronic Systems Society's M. Barry Carlton Award (2011) and the IEEE Communications Society Fred W. Ellersick Prize (2012). Prof. Dardari is Senior Member of the IEEE where he was the Chair for the *Radio Communications Committee* of the IEEE Communication Society and Distinguished Lecturer (2018-2019). He was co-General Chair of the 2011 IEEE International Conference on Ultra-Wideband and co-organizer of the IEEE International Workshop on Advances in Network Localization and Navigation (ANLN) - ICC 2013-2016 editions. He was also TPC co-Chair of the Wireless Communications Symposium of the 2007/2017 IEEE International Conference on Communications, and TPC co-Chair of the 2006 IEEE International Conference on Ultra-Wideband. He served as Guest Editor for several journals and as an Editor for IEEE Transactions on Wireless Communications from 2006 to 2012.