

ROBOTICS ENGINEERING



RBE Colloquium Series Presents

Dr. Eduardo Castelló

Trustable autonomy: creating interfaces between human and robot societies

Abstract: Robotic systems are starting to revolutionize many applications, from transportation to health care, assisted by technological advancements, such as cloud computing, novel hardware design, and novel manufacturing techniques. However, several of the characteristics that make robots ideal for certain future applications such as autonomy, self-learning, knowledge sharing, can also raise concerns in the evolution of the technology from academic institutions to the public sphere. Blockchain, an emerging technology originated in the digital currency field, is starting to show great potential to make robotic operations more secure, autonomous, flexible, and even profitable. Therefore, bridging the gap between purely scientific domains and real-world applications. This talk seeks to move beyond the classical view of robotic systems to advance our understanding about the possibilities and limitations of combining state-of-the-art robotic systems with blockchain technology.

Bio: Eduardo Castelló received his Bsc.(Hons) Intelligent Systems from University of Portsmouth (UK) in 2007, and his M. Eng and Ph.D degrees in robotics engineering from Osaka University (Japan) under the guidance of Prof. Hiroshi Ishiguro. During his graduate studies, Eduardo's research focused on swarms robotic systems and how to achieve collective, cooperative, and collaborative groups of robots. Eduardo is currently a postdoctoral fellow (Marie Curie GF) at the MIT Media Lab (Human Dynamics Group), where he conducts research on the synergy of swarm robotics systems and blockchain technology. In his previous postdoc position at MIT, Eduardo designed, implemented, and tested a whole range of new robotic agriculture systems (Food Computers) at the OpenAg initiative. His research interests include swarm and multi-agent robotics systems, decentralized and distributed control, bio-inspired robotic systems and technology transfer procedures.

Friday, April 5, 2019
2:00 p.m. - 3:00 p.m.
60 Gateway, Rm 1002