

Fecha: Lunes 12 de febrero de 2024 a las 13:00.

Lugar: Aula Magna (Edificio C). E.T.S.I. Aeronáutica y del Espacio.

Ponente: **Prof. Dr. Miguel Olivares-Mendez.** Head of the Space Robotics Research Group (SpaceR) of Université du Luxembourg.

A new Space ERA... full of new Space Robotics Challenges

We are witnessing the beginning of a new Space ERA. While Space was a matter of governmental institutions and a few big companies in the past, the recent advancements in technologies and new insightful discoveries about space resources have awakened the appetite for Space entrepreneurship and innovative people in industry and academia. The number of start-ups initiating business and consolidating activities, focusing on a variety of potential businesses on orbital and planetary scenarios. In orbital scenarios, the increasing amount of debris is making companies and agencies aware that there is a need to reduce it, increase the lifespan of current satellites, and develop new satellites with more capabilities to be serviced. In planetary scenarios, the concept of using planetary resources for specific purposes generates a game-changing concept that is bringing the Moon back to be targeted by Space agencies and new space companies.

In this presentation, I will discuss the new challenges in the new Space ERA and the important role that robotics will play in solving them. I will also explain how the SpaceR research group is working on some of these topics using AI and cutting-edge facilities. In addition, I will provide more information about iSpaRo'24, the new International Conference on Space Robotics.

Prof. Dr. Miguel Olivares-Mendez is a Professor on Space Robotics at the Interdisciplinary Centre for Security, Reliability and Trust of the University of Luxembourg. He leads the Space Robotics Research Group (SpaceR), the LunaLab and the Zero-gravity Lab. In addition, he is the program director of the Master in Space Technologies and Business (MSTB) at the University of Luxembourg and the founder and General Chair of the International Conference on Space Robotics (iSpaRo).

