PhD position – University of Lisbon / TU Darmstadt

The Department of Informatics at the Faculty of Sciences – University of Lisbon is opening a position in "**Dexterous Co-Manipulation through Telepresence**" in collaboration with TU Darmstadt.

We are looking for highly motivated candidates to carry out a research project involving the co-manipulation of objects using teleoperation. The student will be supervised by João Bimbo (ULisboa) and Georgia Chalvatzaki (TUDarmstadt) under the Unite! Network and is expected to spend a significant amount of time visiting TUD (~9-12 months). The project aims to address the following research questions: *a)* Can teleoperation be a conducive technology for human-robot-collaboration in manufacturing scenarios?; and *b)* Can some robot collaborative actions be automated through machine learning?

The student will develop a teleoperation setup that includes virtual reality and multi-modal sensory communication. This setup will enable the co-manipulation of objects by a robot and a human user, generating data for a reinforcement learning framework to learn autonomous behavior. More details about the project can be found in this link or contacting me at jmbimbo@fc.ul.pt.

Essential requirements:

- A Master's degree in Computer Science, Robotics, Electrical Engineering or a related topic
- A background in robotics and/or machine learning
- Experience in programming (C++, Python)
- Fluency in English

Desirable:

- Track record in scientific writing (scientific articles)
- Previous work in robotics, teleoperation, or VR projects
- Experience in reinforcement learning
- Knowledge of ROS or Unity

Duration: 3 years

Starting date: September 2023

Contract: Portuguese PhD contract (link fct)