



11 JULY 2025, H. 15:00
AUGMENTED HEALTH ENVIRONMENTS LABORATORY
POLO FERRARI 1 - VIA SOMMARIVE 5, TRENTO

As the global population ages, the demand for innovative senior care solutions calls for bridging fundamental research with real-world applications. This talk introduces a framework centered on the service mobile humanoid "GARMI," integrating advances in robotic grasping, manipulation, telerobotics, and whole-body coordination. Leveraging AI-driven learning, parameter-based identification, tactile sensing, and impedance control, GARMI enables dexterous, compliant interactions that adapt seamlessly to diverse object properties and dynamic environments. The framework emphasizes transitions across robotic body parts—hand, arm, and body—to effectively differentiate between operational, environmental, and robot spaces. Validated through real-world benchmarks in healthcare and daily assistance, this work unites theoretical insights with practical innovation, demonstrating robotics' transformative potential to address the critical challenges of an aging society.

Speaker: Abdeldjallil Naceri
Technical University of Munich, Germany

AI and Robotics for Healthy Aging: From Research Labs to Real- World Care

DII SEMINAR

