ETH zürich

Distinguished Seminar in Robotics, Systems & Control

The Institute of Robotics and Intelligent Systems presents:

Machine Intelligence: bridging the gap between robotics and AI

Date: May 17, 2019
Time: 15.15
Place: HG G3

Abstract:

Important breakthroughs in robotics and artificial intelligence have enabled the first real-world applications of flexible, human-centered robot systems. Controlled by intelligent programming and interaction systems that „understand" man and machine, even laymen can use state-of-the-art robot technology for the first time. Their commercial introduction represents a step change in the way intelligent machines meet human needs beyond the industrial sector, e.g. also in the healthcare or private sector. In other words, they become everyday intelligent helpers in a wide variety of applications to make our lives easier. However, several grand challenges remain to be solved before unifying the fields of robotics and artificial intelligence to machine intelligence. First, the technological limits of sensory-motor and holistic system design need to be pushed significantly further in order to come closer to the unmatched performance and embodied intelligence of the human body. Second, we face the challenge of unifying the two previously separate paradigms of model- based control with data-driven machine learning algorithms such that next generation AI-algorithms seamlessly bridge the gap between physical and virtual world.

Biography:

Prof. Sami Haddadin is Director of the Munich School of Robotics and Machine Intelligence at the Technical University of Munich (TUM) and holds the Chair of Robotics and Systems Intelligence. He is considered one of the world's leading researchers in the field of robotics and machine intelligence. The engineer and computer scientist has written more than 130 scientific articles and received numerous of the most important international prizes and awards from the scientific community. Sami Haddadin has won the IEEE/RAS Early Career Award, the Alfried Krupp Prize, the German Future Prize of the German President and the Gottfried Wilhelm Leibniz Price (DFG).

D MAVT **D** HEST

IRIS