



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

DIISM Dipartimento
di Ingegneria
Industriale e Scienze
Matematiche



WORKSHOP

Introduction to risk assessment and safety evaluation for collaborative robot applications

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JOANNEUM RESEARCH

ROBOTICS - Institute for Robotics and Mechatronics

Klagenfurt am Wörthersee, Austria

Web: www.joanneum.at/robotics

5 April

i-Labs Industry, Via Guerri 7, Jesi, AN

PROGRAM

The workshop includes short impulse lectures and then focuses on interactive group tasks, elaboration of key questions, implementation challenges and practical work on the basis of a specific example in i-Labs laboratory.

09:30 – Morning session

- Introduction to robot safety
- Safety requirements and hazards in collaborative robot applications
- Working with standards and guidelines
- The structured process of risk assessment

14:00 – Afternoon session

- Conformity assessment of mechanical hazards
- Hazard mitigation
- The way to CE conformity of collaborative robot applications
- Discussion of results and elaboration

Registration is required (mail to: g.palmieri@univpm.it)

MICHAEL HOFBAUR



Prof. Hofbauer is director and chief scientist of JOANNEUM RESEARCH ROBOTICS and Professor for Modular Robotics at the University of Klagenfurt. His research focusses on innovative industrial and service robotics and human-robot interaction. Model-based and systems theoretic methodologies for the control of complex modular mechatronic systems, as well as AI based concepts for systems diagnosis, planning and intelligent control build the foundation of his scientific work in the field of modular robotics. Work on functional- and robot safety support his focus on building safety-rated control concepts for modern robot systems.

Prior to serving as a director for JOANNEUM RESEARCH ROBOTICS and becoming professor at the University of Klagenfurt he was professor for Automation and Control at the private University UMIT in Hall/Tyrol from 2009-2014. He earned his PhD from Graz University of Technology in the field of Electrical Engineering in 1999 and became associate professor for Automation and Complex Systems at Graz University of Technology in 2004. In 2000/2001 he was visiting associate professor at the Space Systems Laboratory and the AI Laboratory at M.I.T. in Cambridge USA. In addition to his scientific career path, he became a Chartered Engineer in Electrical Engineering in 2011 and worked as consultant for functional safety from 2012-2014.

MICHAEL RATHMAIR



Dr. Michael Rathmair studied electrical engineering and information technology at the TU Wien and graduated in 2018 with a doctorate degree from the Institute of Computer Technology. In addition, he was a research associate and integrated in various national and international research projects, as well as in university teaching. Since March 2019 he is working as a research assistant and technical test center manager of the ROBOTICS Evaluation Lab (REL) at the Institute for ROBOTICS of the JOANNEUM RESEARCH Forschungsgesellschaft mbH. His professional interests are primarily in the research and development of verification, analysis and testing processes for robot applications in the sense of a flexible cyber-physical system. In order to be able to optimally integrate these processes into modern day-to-day production, he is also actively involved in the national and international committees for the robot safety standard ISO 10218.