



FIRST

Field Robotics South-Tyrol lab
unibz

Workshop and Open Lab on

FIELD ROBOTICS

Interdisciplinary aspects of robotics and its applications
in outdoor scenarios

01.07.2021 | 13:30 – 19:30

NOI Techpark A1 and B5

Prof. Renato Vidoni and Prof. Karl von Ellenrieder | event@unibz.it

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The workshop on Field Robotics **is a forum for discussion on Field Robotics**, where experts share and discuss their latest results, current trends and novel ideas in the area of robotics for Field Activities. The emphasis of contributions is on **interdisciplinary aspects of robotics and its applications in outdoor scenarios** considering, in particular, the South-Tirolean context. Technologies and research fields presented in the event are also linked to the newly established FiRST – Field Robotics South-Tyrol Laboratory of the Free University of Bozen-Bolzano at NOI Techpark. **During the workshop, the newly constructed FiRST Lab will be presented via an open-lab/demo session** and inaugurated with an aperitif.

A1

- 13:30 – 14:00** **Registration**
- 14:00 – 14:15** **Welcome and workshop opening**
R. Vidoni and K. Von Ellenrieder – Free University of Bozen-Bolzano
- 14:15 – 14:30** **NOI Techpark and the Automotive/Automation Ecosystem**
Dr. J. Brunner, head of TechTransfer Automotive/Automation unit – NOI Techpark
- 14:30 – 14:50** **Mattro ROVO: the Compact Powerhouse**
B. Knaus/A. Bauer – Mattro GmbH (www.mattro.com)
- 14:50 – 15:10** **Advanced Mobile Robotics Applications**
Dr. A. Giusti, head of RISE at Fraunhofer Italia (www.fraunhofer.it)
- 15:10 – 15:30** **KNECHT4.0 and Energy Storage**
C. Frei – BerMarTec/Knecht (www.bermartec.com)
- 15:30 – 15:50** **Computational Design of Legged Robots with Numerical Optimal Control**
Dr. A. Del Prete – University of Trento (www.unitn.it)

NOI TECHPARK

- 16:10 – 16:30** **Innovative Digitech Solutions for Agrofood and Smart Farming**
Dr. G. Ristorto – MavTech (www.mavtech.eu/it/)
- 16:30 – 16:50** **Reference Tracking with Hybrid Obstacle Avoidance for Unicycle Models**
Prof. L- Zaccarian – University of Trento (www.unitn.it)
- 16:50 – 17:10** **Thorvald – a Modular Multipurpose Robot for Agriculture**
Dr. P. J. From – SAGA Robotics (sagarobotics.com/)
- 17:10 – 17:30** **Making Robots Learn to Perceive and Act with Understanding**
Profs. J. Piater, M. Saveriano, A. Agostini – University of Innsbruck (www.uibk.ac.at)
- 17:30 – 17:50** **TOMMIE: Automating Crop Load Management in Apple Orchards**
Dr. E. Bruni – Aigritec (www.aigritec.com)
- 17:50 – 18:00** **Closure of the workshop**
R. Vidoni and K. Von Ellenrieder – Free University of Bozen-Bolzano

B5

- 18:15– 19:00** **FiRST – Field Robotics South-Tirol Laboratory presentation and open-lab**
R. Vidoni and K. Von Ellenrieder – Free University of Bozen-Bolzano
- 19:00 pm** **Stay together / Aperitif**

For guests attending in presence the number of places is limited and will be given on a "first come, first served" basis, so you are kindly invited to register early if you would like to attend the event. Access is possible only with CoronaPass or valid negative test.*