

Empowering Tomorrow's Engineers: Shaping Europe's Next-Gen Heavy-Duty Mobile Machines with AI, Energy Efficiency, and Innovation

Helsinki, Espoo – Finland
24 – 25 October 2023



The MORE project, an innovative initiative funded by the European Union, is set to celebrate the culmination of its European Industrial Doctorate (EID) research and training program at a momentous final event. This event will shine a spotlight on the achievements of the eight early-stage researchers (ESRs) who will present key outcomes from their individual projects aimed at addressing challenges in construction, logistics, and agriculture sectors.

Throughout the event, speakers and participants will have the opportunity to gain insights into the accomplishments of the ESRs, hear lectures from expert key note speakers and join lab site visits, further highlighting the invaluable contribution of this collaboration between academia and industry.

Programme

KEYNOTE SPEAKERS Antti Kolu, Novatron oy

Prof. Ville Kyrki, Aalto University

MORE PRESENTATIONS Insights and results from the 8 MORE Early Stage Researchers

Moderation from MORE project coordinator, Prof. Reza Ghabcheloo, Tampere University

Open discussions with members of the MORE consortium and key note speakers

SITE VISIT Aalto Robot Learning Lab, rl.aalto.fi

Register online

Register online. The final event is open to the public. Attendance is free. Registration is required.

Details available on more-itn.eu/final-event | [Register here](#)



Day 1: Tuesday, 24 October 2023

Location: R004/A208d Jeti, Otakaari 5, Aalto University, FI-02150 Espoo

Time	Title	Speaker
13:00	Opening the MORE final event	Reza Ghabcheloo
Session 1: Optimisation of mobile working machine processes		
13:10	Keynote presentation: Role of BIM in autonomous infra construction	Antti Kolu
14:10	Towards business cases for automated and autonomous heavy-duty mobile machinery	Tyrone J. Machado (ESR1)
14:30	Work performance evaluation of mobile machines	Amirmasoud Molaei (ESR2)
14:50	<i>Coffee break</i>	<i>All</i>
15:20	Towards Optimal Autonomous Material Flow and Beyond	Paolo Forte (ESR3)
15:40	Competitive Solutions for Increased Energy Efficiency on Heavy-Duty Mobile Machines	David Fassbender (ESR4)
16:00	Session 1 wrap-up and discussion	Antti Kolu, Achim Lilienthal, Ulrich Lenzgeiger, David Fassbender
17:00	Lab demo visit: Aalto Robot Learning Lab	

Day 2: Wednesday, 25 October 2023

Location: R001/Y124 E-sali, Otakaari 1, Aalto University, FI-02150 Espoo

Time	Title	Speaker
Session 2: Automation of mobile working machines		
9:00	Robust all-weather environment 3D perception and obstacle avoidance	Himanshu Gupta (ESR5)
9:20	AI-enabled automatic bucket filling for wheel loaders	Daniel Eriksson (ESR6)
9:40	Reinforcement Learning and Control for Industrial Machines	Abdolreza Taheri (ESR8)
10:00	Egomotion Estimation Using high Resolution Radar Sensors	Prashant Kumar Rai (ESR7)
10:20	Enabling Robust Perception: Localization and Mapping with Radar	Maximilian Hilger (ESR7)
10:30	<i>Coffee break</i>	
10:45	Keynote presentation: Robotics and Machine learning	Ville Kyrki
11:30	Session 2 wrap-up and discussion	Ville Kyrki, Marcus Geimer, Manuel Bös, Abdolreza Taheri
11:55	Future outlook and MORE	Reza Ghabcheloo

Speakers



Reza Ghabcheloo
Tampere University



Antti Kolu
Novatron oy



Ville Kyrki
Aalto University



Tyrone J. Machado (ESR1)
Tampere University /
Bosch Rexroth



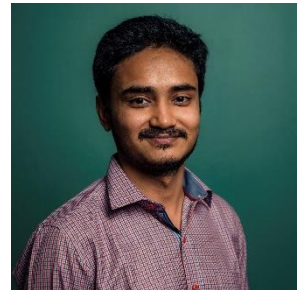
Amirmasoud Molaei (ESR2)
Karlsruher Institut für
Technologie / Novatron Oy



Paolo Forte (ESR3)
Orebro University /
Novatron Oy



David Fassbender (ESR4)
Tampere University /
Bosch Rexroth



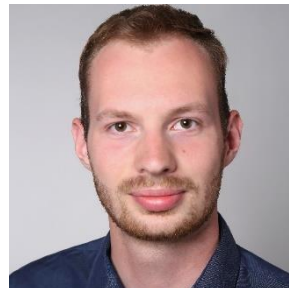
Himanshu Gupta (ESR5)
Orebro University /
John Deere Forestry Oy



Daniel Eriksson (ESR6)
Karlsruher Institut für
Technologie / LIEBHERR- Werk
Bischofshofen GmbH



Prashant Kumar Rai (ESR7)
Tampere University /
Hiab AB



Maximilian Hilger (ESR7)
Orebro University /
Bosch Rexroth



Abdolreza Taheri (ESR8)
Tampere University /
Hiab AB



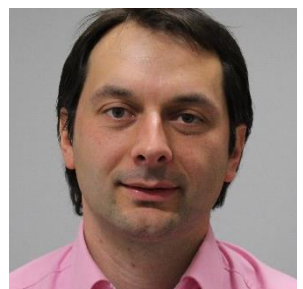
Marcus Geimer
Karlsruhe Institut für
Technologie



Manuel Bös
Liebherr

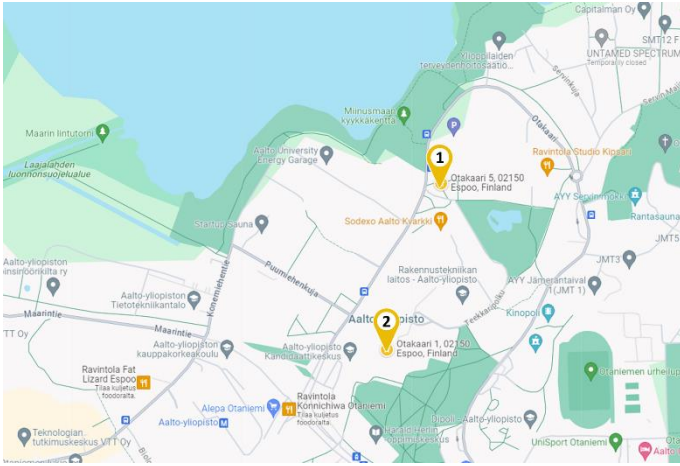


Achim Lilienthal
Orebro University



Ulrich Lenzgeiger
Bosch Rexroth

Location



Final event

Aalto University, FI-02150 Espoo

- (1) 24.10.2023, 13:00 - 17:00 R004/A208d Jeti, Otakaari 5
- (2) 25.10.2023, 09:00 - 12:00 R001/Y124 E-sali, Otakaari 1

Site Visit

Aalto Robot Learning Lab, rl.aalto.fi

MORE Partners

Academic Beneficiaries



Industry Beneficiaries



Partner Organisations

