

AUTOMAATIOPÄIVÄT AUTOMATION DAYS

25.–26.3.2025, HOTELLI TORNI, TAMPERE

Smart, safe and secure automation –
Älykästä ja turvallista automaatiota



WEDNESDAY, MARCH 26TH

09:10-10:00

Session K2: Keynote (EN)

Markku Tynnelä (Automation Systems Business Line, Valmet, Finland)
How to secure automation systems throughout the entire life cycle

10:00-10:40

Coffee Break

10:40-12:00

ROOM B

Session S3-B: ICT, IoT, Digitalization (FI/EN)

10:40 Antti Ranta (Tampere University, Finland), Teijo Juntunen (Tampere University, Finland), Alex Kanerva (Tampere University, Finland), Matti Vilkkö (Tampere University, Finland), Sami Repo (Tampere University, Finland), David Hästbacka (Tampere University, Finland)

Comparison of Integration Architectures for Process Flexibility in Industrial Processes

11:00 Antti Jaatinen (Valmet, Finland)

Kokemuksia langattomien teknologioiden käytöstä automaatioissa

11:20 Long Phan (Tampere University, Finland), Saku Pöysäri (Tampere University, Finland), Jyrki Latokartano (Tampere University, Finland)

Achieving Industry 4.0 in manufacturing SMEs: A Case Study on Digital Twin Integration for Industrial Robots and Legacy Systems

11:40 Fredrik Hellman (Åbo Akademi, Finland), Janne Hakala (Åbo Akademi, Finland), William Antus (Mirka Ltd, Finland), André Norrback (Mirka Ltd, Finland), Andreas Lundell (Åbo Akademi, Finland), Jerker Björkqvist (Åbo Akademi, Finland)

Automated Life Cycle Assessment in Scalable and Flexible Manufacturing

ROOM C

Session S3-C: Safety, security, system design (EN)

10:40 Juho Pirttilahti (Seinäjoki University of Applied Sciences, Finland), Sakari Pollari (Seinäjoki University of Applied Sciences, Finland), Janne Kapela (Seinäjoki University of Applied Sciences, Finland)

Safety system delay measurement and implementation to VR- simulation

11:00 Timo Malm (VTT, Finland), Taru Hakanen (VTT, Finland), Josepha Berger (VTT, Germany), Sami Karadeniz (VTT, Finland)

Uncertain information related to situational awareness of mixed fleet and AMR - Safety perspective

11:20 Niko Siltala (Tampere University, Finland), Helena Leppäkoski (Tampere University, Finland), Reijo Hynynen (Savonia AMK, Finland), Markku Penttinen (Ilisalmen Teollisuuskylä Oy, Finland), Jaakko Passiniemi (HJP Kehitys Oy, Finland)

Project Implementation Model with Postponed Requirements Definition: Findings from the TeknoHUB Project

12:00-13:00

Lunch



13:00-14:40

ROOM A

Session S4-A: Energy systems, green transition (FI/EN)

13:00 Sanni Siltala (Sweco Finland Oy, Finland), Tuomas Hietala (Sweco Finland Oy, Finland)
Rakennusten energiatehokkuus ja rakennusautomaatio

13:20 Yrjö Majanne (Tampere University, Finland), Venla Vilhonen (Polar Night Energy, Finland), Sami Repo (Tampere University, Finland), Matti Vilkkio (Tampere University, Finland)
Green Transition, Systemic Approach to Green Hydrogen Based Power2X Value Chain

13:40 Lauri Aaltonen (Tampereen yliopisto, Finland), Kari Lappalainen (Tampereen yliopisto, Finland)
Energiamurroksen vaikutukset sähkönkulutukseen ja -tuotantoon suomalaisissa jakelu-verkoissa

14:00 Harri Aaltonen (Aalto University, Finland), Udayanto Atmojo (Aalto University, Finland), Valeriy Vyatkin (Aalto University and Lulea Tekniska Universitet, Finland)
Ilmastoinnin hyödyntäminen kysyntäjoustona laivoilla

14:20 Hamed Badihi (Tampere University, Finland), Matti Vilkkio (Tampere University, Finland)
Advancing the Energy Transition with Dependable Automation

ROOM B

Session S4-B: Robotics, autonomous systems (EN)

13:00 Jarkko Kotaniemi (VTT, Finland), Janne Saukkoriipi (VTT, Finland), Tuomas Seppälä (VTT, Finland)
Robot Deburring Path Generation Based on a 3D Point Cloud

13:20 Niko Siltala (Tampere University, Finland), Aleksii Partanen (Enico Oy, Finland)
Accuracy Evaluation of Landmark-based Visual Positioning of a Collaborative Robot

13:40 Heikki Hyyti (Finnish Geospatial Research Institute FGI, Finland), Petri Manninen (Finnish Geospatial Research Institute FGI, Finland), Jyri Maanpää (Finnish Geospatial Research Institute FGI, Finland)
ROADVIEW: Perception for Autonomous Vehicles in Adverse Weather Conditions

14:00 Tapio Haapamäki (Air Systems Depot, Finland), Mika Nieminen (National Defence University, Finland), Reino Virrankoski (Aalto University, Finland)
Utilization of Multirotor Drones, Small Satellites and Other Sensor Systems in Airbase Protection

14:20 Taneli Lohi (VTT, Finland), Samuli Soutukorva (VTT, Finland), Tapio Heikkilä (VTT, Finland)
Programming of Skill-based Robots

ROOM C

Session S4-B: Robotics, autonomous systems (EN)

13:00 Esko Juuso (University of Oulu, Finland)
Varying time delays in intelligent steady state and dynamic models

13:20 Kaarlo Mäkelä (Aalto University, Finland), Risto Ojala (Aalto University, Finland), Jenni Pippuri-Mäkeläinen (Aalto University, Finland)
Hardware-in-the-Loop Simulation for Predicting E-axle Energy Efficiency in Trucks

13:40 Samuli Bergman (Ferroman Engineering Oy, Finland), Andreas Frejborg (Ferroman Engineering Oy, Finland), Hans Aalto (Take Control Oy, Finland)
Optimal control of fuel gas mixing systems

14:00 Leevi Lignell (Tampere University, Finland), Minh Tran (Tampere University, Finland), Tomi Roinila (Tampere University, Finland)
Optimized Charging of Li-Ion Batteries by Using Adaptive Impedance-Based Approach

14:20 Petri Hietaharju (University of Oulu, Finland), Mika Ruusunen (University of Oulu, Finland), Jari Ruuska (University of Oulu, Finland), Jani Tomperi (University of Oulu, Finland), Pekka Rossi (University of Oulu, Finland), Elisangela Heiderscheidt (University of Oulu, Finland)
Kaukolämpö- ja vesi-huoltojärjestelmän sektori-integraation mallinnus, simulointi ja optimointi

14:40-15:00

Coffee Break

15:00-16:00

Session P: Panel (EN): Smart, safe and secure automation

THANK YOU FOR YOUR CONTRIBUTION,
SEE YOU NEXT TIME!

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