

Program Scientific Track – ERF2026

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Wednesday, 25 March 2026 – Robotics I

Start: 8.30. Each presentation 20 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

Time	ID	Title/Authors
8:30-8:50	8	Energy-Efficient Trajectory Tracking through Economic Nonlinear Model Predictive Control for Articulated Intervention-AUVs
		<i>Erling Tvetter (NTNU)</i> <i>Eirik Foseid (NTNU)</i> <i>Kristin Pettersen (NTNU)</i> <i>Jan Tommy Gravdahl (NTNU)</i>
8:50-9:10	48	Lifetime assessment of offshore moorings using a robotic platform with integrated 3D vision system
		<i>Trine Kirkhus (SINTEF)</i> <i>Jens T. Thielemann (SINTEF)</i> <i>Jostein Thorstensen (SINTEF)</i> <i>Marius E. Andersen (SINTEF)</i> <i>Terence Coudert (SINTEF)</i> <i>Kristoffer Brungot (Oceantech Innovation)</i>
9:10-9:30	39	Towards an Autonomous Mobile Robotic System for Deburring Large-Scale Components
		<i>Rafael Herguedas (Instituto Tecnológico de Aragón)</i> <i>María T. Lázaro (Instituto Tecnológico de Aragón)</i> <i>Sara Mata (IDEKO)</i> <i>Oihane Busselo (IDEKO)</i>
9:30-9:50	33	Coverage Planning for Automated ROV Inspections of Aquaculture Net Pens
		<i>Herman Amundsen (NTNU, SINTEF Ocean)</i> <i>Tuva Vika Tholo (NTNU)</i> <i>Jan Tommy Gravdahl (NTNU)</i>

Wednesday, 25 March 2026 – Robotics II

Start: 11:20. Each presentation 20 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdaahl | Daniel Hagen

Time	ID	Title/Authors
11:20-11:40	10	Resistance is futile: the feasibility of integrating robotic exoskeleton systems within upper body spacesuit design
		<i>Andrew Garrick (University of Birmingham, Star Helix)</i> <i>Mason Robbins (University of Arizona, Star Helix)</i>
11:40-12:00	26	Evaluating Dexterous Manipulator Technologies for In-Orbit Services
		<i>Manu Nair (University of Manchester)</i> <i>Mini C. Rai (OrbitRise Ltd)</i>
12:00-12:20	77	Mobile Manipulator with Passive Mechanical Coupling for Autonomous Object-Handling
		<i>Daniel Hagen (University of Agder)</i> <i>Marcus Eide (University of Agder)</i> <i>Tollak Liland (University of Agder)</i> <i>Muhammad Faisal Aftab (University of Agder)</i>

Wednesday, 25 March 2026 – Pitch/Poster Session I

Start: 12:20. Each presentation 7 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

#	ID	Title/Authors
1	20	OmniABiD: Evaluating Sim2Real Transferability in Safety and Risk Monitoring of Human-Robot Collaboration using NVIDIA Omniverse
		<i>Frederik Plahl (Proximity Robotics & Automation GmbH, University of Stuttgart)</i> <i>Georgios Katranis (University of Stuttgart)</i> <i>Kathrin Alba (Proximity Robotics & Automation GmbH)</i> <i>Franziska Wolny (Federal Institute for Occupational Safety and Health)</i> <i>Silvia Vock (Federal Institute for Occupational Safety and Health)</i> <i>Andrey Morozov (University of Stuttgart)</i> <i>Ilshat Mamaev (Proximity Robotics & Automation GmbH)</i>
2	46	Enabling pedestrian-like crossings for sidewalk robots through ETSI C-ITS integration in ROS 2
		<i>Francesco Aglieco (Fondazione LINKS)</i> <i>Enrico Ferrera (Fondazione LINKS)</i> <i>Federica Schena (Fondazione LINKS)</i> <i>Edoardo Bonetto (Fondazione LINKS)</i> <i>Gianluca Prato (Fondazione LINKS)</i> <i>Guido Gavillanes (Fondazione LINKS)</i> <i>Daniele Brevi (Fondazione LINKS)</i> <i>Claudio Pastrone (Fondazione LINKS)</i>
3	81	Hierarchical HMM-Based Intuitive Programming for Grip-Force-Oriented Robotic Manipulation: Pilot Experimental Validation
		<i>Alex Pasquali (University of Bologna)</i> <i>Roberto Meattini (University of Bologna)</i> <i>Claudio Melchiorri (University of Bologna)</i> <i>Gianluca Palli (University of Bologna)</i>

Wednesday, 25 March 2026 – Pitch/Poster Session II

Start: 14:00. Each presentation 7 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

#	ID	Title/Authors
1	18	Interoperability by Design: Schema- and LLM-Guided Authoring for Non-Expert Usability in Robotic Service Descriptions
		<i>Maximilian Stäbler (German Aerospace Center (DLR))</i> <i>Lukas Sohlbach (VDMA Robotics + Automation)</i> <i>Felix Weidinger (VDMA Robotics + Automation)</i> <i>Robin Taba (German Aerospace Center (DLR))</i> <i>Chris Schlueter-Langdon (Drucker School of Management)</i> <i>Frank Köster (German Aerospace Center (DLR))</i>
2	4	Admittance Control of Exoskeleton for Task-Oriented Physiotherapy Using a Multi-Criteria Cost Function
		<i>Piotr Falkowski (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Maciej Pikuliński (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Kajetan Jeznach (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Krzysztof Zawalski (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Jan Oleksiuk (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Piotr Kołodziejcki (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Tomasz Osiak (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Andrzej Zakręcki (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i> <i>Daniel Śliż (Łukasiewicz Research Network – Industrial Research Institute for Automation and Measurements PIAP)</i>
3	17	Inverse Dynamics Based Force Prediction in Industrial Robots with Hybrid Drives
		<i>Philip Carstensen (Fraunhofer Institut - IFAM)</i> <i>Stephan Hansen (Fraunhofer Institut - IFAM)</i> <i>Wolfgang Hintze (Fraunhofer Institut - IFAM)</i> <i>Robert Seifried (TUHH)</i>
4	21	The Language of Deformation: Semantic Failure Analysis as a Prerequisite for Dexterous Manipulation of Deformable Objects
		<i>Ignacio Cuiral-Zueco (CA-INP)</i> <i>David Hardman (University of Cambridge Cambridge)</i> <i>Michele Pierallini (Universita di Pisa)</i> <i>Erfan Shahriari (RAI Institute)</i>
5	59	Assessing 6D Pose Estimation Pipelines for Reflective Part Handling
		<i>Alejandro Grajeda (AIMEN)</i> <i>David Castro (AIMEN)</i> <i>Jawad Masood (AIMEN)</i> <i>Abel Feijoo (AIMEN)</i> <i>Dennis van Dijk (Viventris)</i>

		<i>Ids de Vos (Viventris)</i> <i>Erik Koehorst (Philips)</i> <i>Gotzone Aizpurua (Tekniker)</i> <i>Ane Fernandez (Tekniker)</i> <i>Ander Ansuategi (Tekniker)</i>
6	64	Towards Kinematic Assessment of Robotic AM Toolpaths, Evaluating A Contour Manipulability-Based Pre-Production Metric
		<i>Pradnil Kamble (Deutsche Zentrum für Luft- und Raumfahrt (DLR))</i>
7	72	A main-side virtual RCM approach for intuitive teleoperated endoscope control
		<i>Rosaura Morfino (Università Campus Bio-Medico di Roma)</i> <i>Clemente Lauretti (Università Campus Bio-Medico di Roma)</i> <i>Loredana Zollo (Università Campus Bio-Medico di Roma)</i>
8	23	A Fully Coupled Non-Singular Fast Terminal Sliding Mde Control for Commercial Mobile Manipulators
		<i>Naroa Núñez-Calvo (Ikerlan Technology Research Centre, Basque Research and Technology Alliance (BRTA))</i> <i>Gorka Sorrosal (Ikerlan Technology Research Centre, Basque Research and Technology Alliance (BRTA))</i> <i>Itziar Cabanes (Bilbao School of Engineering, University of the Basque Country (EHU))</i> <i>Carlos Calleja (Ikerlan Technology Research Centre, Basque Research and Technology Alliance (BRTA))</i> <i>Aitziber Mancisidor (Bilbao School of Engineering, University of the Basque Country (EHU))</i>
9	12	Supporting Caregivers with Robotics: A User-Centered Platform for Tailored Nursing Interventions
		<i>Pascal Müller (Martin-Luther-University Halle-Wittenberg)</i> <i>Patrick Jahn (Martin-Luther-University Halle-Wittenberg)</i>
10	19	Towards Optimal Trajectories in Cooperative Multi-Robot Processes Based on Kinetostatic Criteria
		<i>Jonatan Rodriguez (Lortek)</i> <i>Iñaki Sainz (Lortek)</i> <i>Francisco Javier Huertos (Lortek)</i> <i>Michail Aggelos Terzakis (Laboratory for Manufacturing Systems \& Automation)</i> <i>Christos Papaioannou (Laboratory for Manufacturing Systems & Automation)</i> <i>Panagiotis Stavropoulos (Laboratory for Manufacturing Systems & Automation)</i>
11	5	From Screws to Tools: Detection, Classification, and Tool Suggestion for Robotic Disassembly
		<i>Pedro Dias (INESC TEC)</i> <i>Artur Cordeiro (INESC TEC)</i> <i>Marcelo Petry (INESC TEC)</i> <i>Vitor Filipe (UTAD)</i> <i>Luís Rocha (INESC TEC)</i> <i>João Souza (INESC TEC)</i> <i>Manuel Silva (ISEP)</i>
12	54	HARTU: AI-Enhanced Robotic Technologies for Flexible Handling in Manufacturing and Logistics Environments
		<i>Ander Ansuategi (TEKNIKER)</i> <i>Ander Iriondo (TEKNIKER)</i> <i>Jawad Masood (AIMEN)</i> <i>Vinzenz Bargsten (Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI))</i> <i>Vito Cacucciolo (Omnigrasp SRL)</i> <i>Pietro Greco (Engineering Ingegneria Informatica SpA)</i> <i>Erica Vannucci (Deepblue)</i>

Wednesday, 25 March 2026 – Pitch/Poster Session III

Start: 16:00. Each presentation 7 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

#	ID	Title/Authors
1	3	Synthetic Data-Driven Perception and Motion Planning for Mobile Robot Manipulation
		<i>Artur Cordeiro (INESC TEC)</i> <i>Pedro Dias (INESC TEC)</i> <i>Luís Rocha (INESC TEC)</i> <i>Frederico Borges (Sonae)</i> <i>Manuel Silva (INESC TEC; ISEP)</i> <i>José Boaventura (INESC TEC; UTAD)</i> <i>João Souza (INESC TEC)</i>
2	15	Perception-aware Exploration for Consumer-grade UAVs
		<i>Svetlana Seliunina (University of Bonn)</i> <i>Daniel Schleich (University of Bonn)</i> <i>Sven Behnke (University of Bonn)</i>
3	14	Multi-Camera Human Pose Estimation for Minimal Distance Monitoring in Industrial Robot Cells
		<i>Alejandro Grajeda (AIMEN)</i> <i>Claudio Sanchez (AIMEN)</i> <i>Isidro Fernandez (AIMEN)</i> <i>David Castro (AIMEN)</i> <i>Jawad Masood (AIMEN)</i>
4	76	Comparative study of two hand-eye calibration methods for laser profile scanners in robotic welding
		<i>Pirmin Sigron (SINTEF)</i> <i>Ådne Solhaug Linnerud (SINTEF)</i> <i>Eirik Njåstad (SINTEF)</i>
5	30	Establishing Understanding: A Modular Cognitive Architecture for Multimodal Human–Robot Collaboration
		<i>Emma Hughson (Cambridge Consultants Ltd.)</i> <i>Irene Salazar Medina (Cambridge Consultants Ltd.)</i> <i>Joe Smallman (Cambridge Consultants Ltd.)</i> <i>Riccardo Secoli (Cambridge Consultants Ltd.)</i> <i>Ali Shafti (Cambridge Consultants Ltd.)</i>
6	34	Feasibility Study on Dual-Arm Throwing Exploiting End-Effector Elasticity
		<i>Giorgio Simonini (Università di Pisa)</i> <i>Grazia Zambella (TU Wien)</i> <i>Christian Ott (TU Wien)</i> <i>Paolo Salaris (Università di Pisa)</i>
7	63	Development and Deployment of a High-Speed Pneumatic Finger Gripper for Construction and Demolition Waste Sorting
		<i>Panagiotis Zoumpoulis (ICCS/NTUA)</i> <i>Konstantinos Kokkalis (ICCS/NTUA)</i> <i>Georgios Tsimiklis (ICCS/NTUA)</i> <i>Angelos Amditis (ICCS/NTUA)</i> <i>Maria Koskinopoulou (Heriot-Watt University)</i> <i>Fotios Konstantinidis (ICCS/NTUA)</i>

8	22	Identification of Pose-Dependent Compliance in Industrial Robots under Variable Static Loads
		<p><i>Marcel Dzubba (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p> <p><i>Matthias Marquart (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p> <p><i>Samed Ajdinović (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p> <p><i>Jana Löhle (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p> <p><i>Armin Lechler (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p> <p><i>Alexander Verl (Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart)</i></p>
9	80	User-centred evaluation of a glove-controlled collaborative robot for brick handover in construction
		<p><i>Andrej Cibicik (SINTEF Industry)</i></p> <p><i>Rebecca Erlebach (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin)</i></p> <p><i>Sascha Wischniewski (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin)</i></p> <p><i>Patricia Rosen (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin)</i></p> <p><i>Chiara André-Zarna (SINTEF Industry)</i></p> <p><i>Eirik Njaastad (SINTEF Industry)</i></p>
10	70	A MP-TEB based controller for human-aware navigation of mobile robots: a cross-platform comparative analysis
		<p><i>Marzia Piemontese (Università Campus Bio-Medico di Roma)</i></p> <p><i>Loredana Zollo (Università Campus Bio-Medico di Roma)</i></p> <p><i>Clemente Lauretti (Università Campus Bio-Medico di Roma)</i></p>
11	61	Evaluation of Wireless Networks for Teleoperation of Industrial Manipulators
		<p><i>José Costa (INESC TEC)</i></p> <p><i>João Martins (INESC TEC)</i></p> <p><i>Manuel Couto (INESC TEC)</i></p> <p><i>Marcelo Petry (INESC TEC)</i></p>

Thursday, 26 March 2026 – AI for Robotics I

Start: 8:30. Each presentation 20 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdaahl | Daniel Hagen

Time	ID	Title/Authors
8:30-8:50	57	Hierarchical LLM-Driven Mission Planning for Heterogeneous Maritime Robot Teams <i>Thi Tran (University of Zagreb)</i> <i>Fausto Ferreira (University of Zagreb, CoE MARBLE)</i> <i>Barbara Arbanas (CoE MARBLE)</i>
8:50-9:10	53	Benchmarking Short- and Wide-baseline Stereo Matching on Marine Surface Vessel <i>Eivind Sunde Eriksen (NTNU)</i> <i>Edmund Førland Brekke (NTNU)</i> <i>Rudolf Mester (NTNU)</i> <i>Annette Stahl (NTNU)</i>
9:10-9:30	52	Natural Language to PDDL: An Error-Correcting Pipeline for Robotic Inspection and Maintenance Mission Planning <i>Magnus Bjerkeng (SINTEF Digital)</i> <i>Bjørnar Luteberget (SINTEF Digital)</i> <i>Ahmed Mohammed (SINTEF Digital)</i> <i>Morten Smedsrud (SINTEF Digital)</i> <i>Synne Fossøy (SINTEF Digital)</i> <i>Frédéric Py (SINTEF Digital)</i> <i>Aksel Transeth (SINTEF Digital)</i>
9:30-9:50	16	EL3DD: Extended Latent 3D Diffusion for Language Conditioned Multitask Manipulation <i>Jonas Bode (University of Bonn)</i> <i>Raphael Memmesheimer (University of Bonn)</i> <i>Sven Behnke (University of Bonn)</i>

Thursday, 26 March 2026 – AI for Robotics II

Start: 11:15. Each presentation 20 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

Time	ID	Title/Authors
11:15-11:35	6	Smart Condition Monitoring with a Mobile Robot using Large Language Models and FIWARE as a Middleware
		<i>Antti Martikkala (Tampere University of Applied Sciences)</i> <i>Kari Naakka (Tampere University of Applied Sciences)</i> <i>Katri Salminen (Tampere University of Applied Sciences)</i>
11:35-11:55	24	Non-verbal Real-time Human-AI Interaction in Constrained Robotic Environments
		<i>Alina Marcu (University Politehnica of Bucharest)</i> <i>Dragos Costea (University Politehnica of Bucharest)</i> <i>Cristina Lazar (University Politehnica of Bucharest)</i> <i>Marius Leordeanu (University Politehnica of Bucharest)</i>
11:55-12:15	66	EMPERA: Event-Based Multitask Learning Model with Motion Dynamics and Event Density Analysis for Joint Person-Action Recognition
		<i>Muhammad Hamza Zafar (University of Agder)</i> <i>Syed Kumayl Raza Moosavi (University of Agder)</i> <i>Furqan Shoukat (University of Engineering and Technology, Taxila)</i> <i>Sanfilippo, Filippo (University of Agder)</i>
12:15-12:35	83	Transformer-Based Human Trajectory Prediction in Manufacturing Settings
		<i>Even Langås (University of Agder)</i> <i>Atle Aalerud (NORCE Norwegian Research Center)</i> <i>Daniel Hagen (University of Agder)</i> <i>Filippo Sanfilippo (University of Agder)</i>

Thursday, 26 March 2026 – Pitch/Poster Session IV

Start: 14:00. Each presentation 7 minutes including Q&A.

Location: Vindafjord

Session Chair: Eleni Kelasidi | Jan Tommy Gravdahl | Daniel Hagen

#	ID	Title/Authors
1	13	In-Graph Softmax for Hard-Soft Attention in Multi-Agent Reinforcement Learning
		<i>Reinis Cimurs (Autonomous Teaming Solutions)</i> <i>Daniel Rossignol (Autonomous Teaming Solutions)</i> <i>Simon Hahn (Autonomous Teaming Solutions)</i> <i>Maximilian Stutzle (Autonomous Teaming Solutions)</i>
2	49	Curriculum Reinforcement Learning for Central Pattern Generator Regulated Locomotion in Snake Robots
		<i>Syed Kumayl Raza Moosavi (Department of Engineering Sciences, Faculty of Engineering and Science, University of Agder (UiA))</i> <i>Muhammad Hamza Zafar (Department of Engineering Sciences, Faculty of Engineering and Science, University of Agder (UiA))</i> <i>Svein Olav Nyberg (Department of Engineering Sciences, Faculty of Engineering and Science, University of Agder (UiA))</i> <i>Filippo Sanfilippo (Department of Engineering Sciences, Faculty of Engineering and Science, University of Agder (UiA))</i>
3	27	Learning on the Fly: Replay-Based Continual Object Perception for Indoor Drones
		<i>Sebastian-Ion Nae (Politehnica Bucharest)</i> <i>Mihai-Eugen Barbu (Politehnica Bucharest)</i> <i>Sebastian Mocanu (Politehnica Bucharest)</i> <i>Marius Leordeanu (Politehnica Bucharest)</i>
4	58	In situ Multiview 3D Reconstruction of Strawberry Plants
		<i>Bård Pedersen (Norwegian University of Life Science)</i> <i>Lucas Vargas (Norwegian University of Life Science)</i> <i>Martin Gerhardsen (SINTEF-Digital)</i> <i>Antonio Leite (Norwegian University of Life Science)</i> <i>Peter Ivarsen (SINTEF-Digital)</i>
5	45	PRISM: Personalized Refinement of Imitation Skills for Manipulation via Human Instructions
		<i>Arnau Boix-Granell (Eurecat)</i> <i>Alberto San-Miguel-Tello (Eurecat)</i> <i>Magí Dalmau-Moreno (Eurecat)</i> <i>Néstor Garcia (Eurecat)</i>
6	32	Multimodal Thermal Arctic Winter Dataset and Evaluation thereof with YOLO
		<i>Charlotte Stubenvoll (Lapland UAS)</i> <i>M. W. Sohan Janaka (Lapland UAS)</i> <i>Tauno Tepsa (Lapland UAS)</i>