

DIMECC

FAME
Finnish Additive Manufacturing Ecosystem

LUT
University

FAME Symposium

Industrializing Research in Additive
Manufacturing

20-21 May Hosted at

2026 LUT University

Morning sessions, room 2310

8.15-9.00	Arrival and coffee
9.00-9.15	Opening of the FAME Symposium
9.15-9.55	Keynote 1: Additive Manufacturing for Critical Infrastructure: From Regulatory Room Hesitation to Born-to-be-Qualified Components , Benjamin Regener, NuclearIQ Solutions LLC
9.55-10.40	Session 1: Qualification and Performance of AM Materials in Energy and Nuclear Applications <ul style="list-style-type: none"> Jukka Mononen, Radiation and Nuclear Safety Authority (STUK), AM products for nuclear energy in Finland Shaafi Shaikh, EOS Finland Oy, Development of Additively Manufactured INCONEL 718 for Oil and Gas Applications
10.40-11.10	Break & Posters

Parallel sessions, room 2310

Parallel sessions, room 1314

11.10-11.55	Session 2: Advanced Metal AM for Energy and Marine Applications: Materials, Processes and Performance <ul style="list-style-type: none"> Francesco Trevisan, Wärtsilä Finland Oy, LPBF of 42CrMo4 Nitriding steel in Wärtsilä Atharv Agarwal, LUT University, Advanced manufacturing of tungsten for nuclear fusion applications using selective laser deposition: microstructure and properties 	11.10-11.55	Session 3: Sustainable Metal AM: Life Cycle Assessment and Resource Efficiency <ul style="list-style-type: none"> Tuomas Puttonen, Aalto University, PBF-LB/M resource efficiency and EOS M290 system instrumentation to collect build-specific life cycle inventory data Erik Haapa, University of Turku, Life cycle cost and environmental assessment of Directed Energy Deposition repair: sensitivity analysis across materials and process parameters
11.55-12.55	Lunch Break	11.55-12.55	Lunch Break
12.55-13.40	Panel discussion: What is holding back the Energy Industry from adopting Additive Manufacturing?	12.55-14.00	Session 5: AI-Driven Design and Engineering: From Early-Stage Decisions to High-Performance Computing <ul style="list-style-type: none"> Alejandro Carcel Lopez, Cognitive Design Systems, Cognitive Design: Deterministic AI Beyond Generative Design, Cognitive Design Systems Eric Coatanea, Tampere University, Automatic early detection and correction of industrial design and manufacturing flaws – REINFORCE Jyrki Savolainen, CSC - IT Center for Science, LUMI Supercomputer offers world-class high-performance computing services for Additive Manufacturing
13:40-14:10	Session 4: The State of Additive Manufacturing: Industry Trends, Policy and Global Outlook <ul style="list-style-type: none"> Johannes Gartner, TU Delft, Politics Meets Production: The Future of Additive Manufacturing in the EU Sascha Wenzler, Mesago Messe Frankfurt GmbH, Global Overview on the Current State of the AM Industry – from the Perspective of Formnext 		
14.10-14.40	Coffee Break	14.00-14.30	Coffee Break
14.40-15.45	Session 7: Hands-On Additive Manufacturing: Lessons from Industry <ul style="list-style-type: none"> Joonatan Huhtala, Konecranes, From Casting to Additive Manufacturing: Redesign and Validation of a Rope Guide Component Roope Lavinen, John Deere Forestry, Serial production costs, benefits and mistakes what to avoid in FDM printing Tommy Enlund, Wärtsilä Finland Oy, Experimental fatigue endurance testing of a high-torque wrench tool made by metal Additive manufacturing 	14.30-15.35	Session 6: Advanced Process Control in Metal AM: AI, Atmospheres and Scalable Manufacturing <ul style="list-style-type: none"> Xinyi Yin, Aalto University, AI-based Defect Detection and Localization in LPBF Antoine Queguineur, Tampere University, Innovative manufacturing head dedicated to large scale metal additive manufacturing Alexander Angré, Linde Gas, The Critical Role of Industrial Gases Throughout the AM Value Chain

Afternoon session, room 2310

15.45-16.15	Announcement of the Design Challenge winners, Winners' presentation, award ceremony, and closing remarks Mika Mustakangas, Patria Oyj & Design challenge winners
18.00-22.00	Symposium dinner cruise

Morning sessions, room 2310

8:30-9:00	Arrival and coffee
9.00-9.05	Opening of Day 2
9.05-9.45	Keynote 2: From legacy geometry to additive manufacturing: the redesign of a hawk jet trainer bracket, Mika Vaskelainen, Patria Oyj
9.45-10.30	Session 8: Additive Manufacturing for Resilience and Security of Supply <ul style="list-style-type: none"> • Janne Uusisuo, NESAs, A brief introduction to NESAs (National Emergency Supply agency), the potential of AM in preparedness and security of supply • TBA
10:30-11:00	Break & Posters
11:00-11:40	Industry Pioneer Talk: How to help Industrialization of Metal AM, Olli Nyrhilä, Developer of the DMLS (PBF-LB/M) process
11:40-12:25	Session 9: Applying Additive Manufacturing in Maritime Industry <ul style="list-style-type: none"> • Giuseppe Sarago, Fincantieri, Additive Manufacturing in Shipbuilding & Systems - Turning problems and ideas in opportunity for faster growth • Mikael Parvikoski, RMC Finland, DED-Arc additive manufacturing used in ship beam-to-pillar connection
12:25-13:25	Lunch Break

Parallel sessions, room 2310

Parallel sessions, room 1314

13:25-14:30	Session 10: Next-Generation AM Materials: Predictive Design and Multi-Material Innovation <ul style="list-style-type: none"> • John Aristeidakis, Thermo-Calc Solutions AB, Accelerating AM material innovation with CALPHAD-based ICME tools • Ville Laitinen, LUT University, Development of laser powder bed fusion fabricated Ni-Mn-Ga magnetic shape memory alloys for actuator applications • Erik Haapa, University of Turku, Porosity control in CuCrZr-316L multi-material PBF-LB/M: Simulation guided process optimization 	13:30-14:30	LUT AM Laboratory Tours <ul style="list-style-type: none"> • Laser laboratory • AM laboratory • Steel Structures laboratory • Welding laboratory with live WAAM-demo included
14:30-15:00	Coffee Break	14:30-15:00	Coffee Break
15:00-15:45	Session 11: Additive Manufacturing in Practice: Reverse Engineering and Performance Optimization <ul style="list-style-type: none"> • Markku Lindqvist, Delva Oy, Reverse engineering and additive manufacturing of engine housing • Lucas Mikkonen, Wärtsilä Finland Oy, Feasibility of an LPBF Gyroid-Structured Oil Cooler: Performance Optimization and Cost Trade-Offs 	15:00-15:40	Session 12. Post-Processing in Additive Manufacturing: Quality, Automation and Industrial Scale-Up <ul style="list-style-type: none"> • Björn Backman, Quintus Technologies AB, Latest Developments in the Use of HIP for Additive Manufacturing • Jere Siivonen, Tampere University of Applied Sciences, Towards opening new markets and create competitive edge for Finnish companies through Additive Manufacturing Post processes Automation

Closing session, room 2310

15.45-16.00	Closing words and end of the symposium
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List of Posters

- **Ramin Mahmoudi**, Additively Manufactured Photopolymer Mold Inserts for Low-Volume Micro-Injection Molding, Aalto University
- **Thilanka Hettiarachchi**, Integrating Lean Manufacturing with Smart Factory Technologies: Toward a Unified Model for Manufacturing Excellence, Savonia University of Applied Sciences
- **Tero Haapakoski**, Commissioning a Data-Driven WLAM Platform: Integrating Robotic Metal AM into a Connected Fieldlab Ecosystem, Tampere University of Applied Sciences
- **Shahriar Balani**, Numerical simulation for weld gap prediction of large structures: comparison between different modelling approaches, Tampere University
- **Mubashir Rafique**, FROM WASTE TO WORTH: DEVELOPING UNDERUTILIZED NATURAL FIBRE'S-BASED COMPOSITES AS 3D PRINTING FEEDSTOCK, Centria University of Applied Sciences
- **Tejas Gundgire**, Surface integrity enhancement in laser powder bed fusion built 316L steel components by post treatment, Tampere University
- **Di Wu**, Image segmentation based online contact-tip-to-workpiece distance control system for wire arc additive manufacturing, Tampere University
- **Vesa Tepponen**, Development of co-axial laser and wire based directed energy deposition system, LUT University
- **Suraj Panicker**, Trajectory of DED-arc research at Tampere University, Tampere University
- **Muhammad Hassan Maqsood**, Influence of Functionally Graded Wall Thickness on the Thermo-Hydraulic Performance of LPBF Manufactured Gyroid TPMS Lattice Heat Exchangers, LUT University

List of Exhibitors

- We're pleased to welcome the following exhibitors to the FAME Symposium: Cognitive Design Systems, CSC – IT Center for Science, HAMK, LUT, and Oerlikon.
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