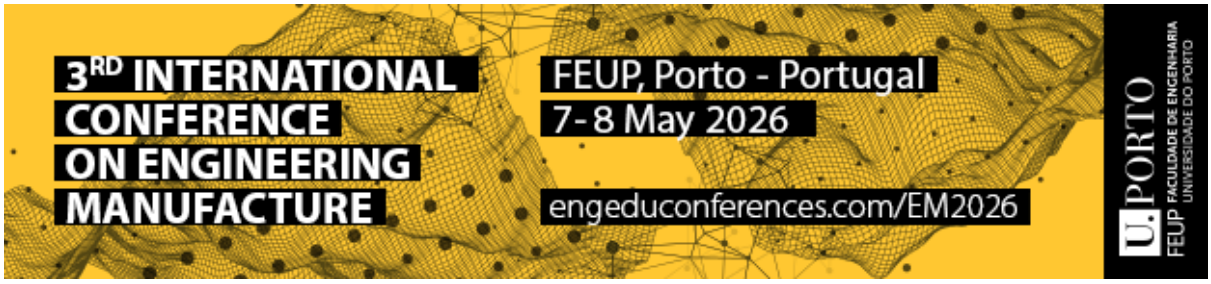

Programme of EM2026

Author underlined → presenting author
* Keynote lecture

Thursday 7 May 2026	
8:40	**EM 2026 Opening (Room B032)**
9:00*	Innovative approaches to the minting of collector coins **(EM26_1)** PAF Martins (University of Lisbon, Portugal)
	Session 1 – Forming (Chair: PAF Martins and MM Kasaei)
	Room B032
9:40	Towards a new formability test to characterize the fracture between mode II and III **(EM26_31)** IM Almeida (University of Lisbon, Portugal), JP Magrinho, PA Martins, MB Silva
10:00	Evaluation of forming-induced ductile damage on fatigue damage mechanisms in 16MnCrS5 steel by resistometry **(EM26_47)** LA Lingnau (TU Dortmund University, Germany), LM Sauer, F Walther
10:20	Self-pierce riveting of hybrid polymer–metal structures for lightweight EV battery pack design **(EM26_10)** FMRM Quelhas, MM Kasaei (INEGI, Portugal), RJC Carbas, EAS Marques, J Hrachova, LFM da Silva
10:40-11:00	**COFFEE BREAK**
	Session 2 – Additive manufacturing I (Chair: F Walther and JL Alves)
	Room B032
11:00	Development of laser assisted AM technology for recycling of glass and glass-ceramics **(EM26_28)** H Sajjad, M González-Longueira, J del Val, E Calvo-García, R Comesaña (University of Vigo, Spain), J Pou
11:20	Benchmarking Ttt-to-3D generative AI outputs (OBJ) for additive manufacturing **(EM26_35)** ML Empinotti, L Santana, MJ Baldessar, JL Alves (University of Porto, Portugal)
11:40	Integration of additive manufacturing and post-process surface engineering for enhanced fatigue performance **(EM26_36)** ME Korkmaz (Yildiz Technical University, Turkey), MK Gupta
12:00	Directional-field optimization for continuous fibre path generation in composite 3D printing using a stripe pattern approach **(EM26_7)** M Iozzi (Univeristy of Bordeaux, France), M Montemurro, J Paihes, A Catapano
12:20	Evaluation of the mechanical properties of additive manufactured thermoplastic polyurethane skeletons on biobased polyurethane resin **(EM26_19)** JG Teixeira, R Lima, MF Vaz (Universidade de Lisboa, Portugal), ST Freitas

12:40	Food design: from contemporary food technology to additive technology **(EM26_25)** L Afreixo, A Pais (University of Porto, Portugal), F Providência, JL Alves
13:00-14:00	**LUNCH BREAK**
	Room B032
14:00*	Advanced scalable surface engineering technologies for industrial applications **(EM26_4)** L Zhang, Q Xiao, H Jing, X Wang, M Lv, J Sun (Dalian University of Technology, China)
	Session 3 – Surface engineering (Chair: J Sun and AA Minea)
	Room B032
14:40	Experimental insights into surfactant advantages and drawbacks on nanocolloids for heat transfer applications **(EM26_5)** GC Tofan, CA Tugui, D Bejan, B Pricop, AA Minea (Technical University "Gheorghe Asachi", Romania)
15:00	Rheology, velocity and surface tension effects on adhesive flow in manufacturing polypropylene-aluminium adhesive joints **(EM26_20)** D Garcia (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, J Hrachova, AMP Afonso, LFM da Silva
15:20	Advanced semiconductor packaging: challenges in durability assessment of multi-material interfaces and interconnectors **(EM26_9)** A Akhavan-Safar (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
15:40	A physics-informed generative tip deconvolution approach for AFM nanoimaging **(EM26_37)** Z Zhao (University of Strathclyde, UK), W Xie, X Luo, Z Wang
16:00-16:20	**COFFEE BREAK**
	Session 4 – Welding and joining by forming (Chair: DM Neto and R Beygi)
	Room B032
16:20	Numerical and experimental investigation of the influence of chemical composition and welding position in a partially or fully penetrated weld pool in GTAW **(EM26_24)** C Jaubert (Arts et Métiers Institute of technologies, France), N Coniglio, M Bedel, L Barrallier
16:40	Material flow during joining with friction spun joint connectors **(EM26_18)** AB Nordieker (Paderborn University, Germany), R Köchling, W Homberg
17:00	Optimization of steel-aluminium friction stir welding through control of intermetallic growth **(EM26_50)** EAS Marques (University of Porto, Portugal), R Beygi, RJC Carbas, LFM da Silva
17:20	FSW of magnesium and copper: A step forward to weld magnesium and steel **(EM26_49)** MB Hesari, R Beygi (Arak University, Iran), A Rahimi, F Azizi, RJC Carbas, EAS Marques, LFM da Silva
17:40	Effect of Reuleaux-triangle clinch-joint orientation on mechanical properties: A finite-element study **(EM26_40)** DR Devulapally (University of Paderborn, Germany), T Tröster
18:00	Description of introduced deformation energy in mechanical joining processes and correlation with the binding mechanisms **(EM26_55)** S Lüder (TUD Dresden University of Technology, Germany), HC Schmale

18:30	**Poster session and RECEPTION**	
Additive manufacturing		
Poster 1	Additive manufacturing–enabled topology optimization of a power transformer clamping plate **(EM26_43)**	L Garrido (INEGI, Portugal), C Costa, J Castro, JR Matos, P Lopes, H Lopes, F Barbosa
Poster 2	Comparative study of additive and conventional manufacturing for mechanical plug retention components **(EM26_39)**	J Conceição (INEGI, Portugal), B Oliveira, J Matos, C Costa, L Garrido, P Lopes, A Brasil, F Barbosa
Welding and joining by forming		
Poster 3	An overview of advanced welding processes for automotive applications **(EM26_51)**	EAS Marques (University of Porto, Portugal), R Beygi, RJC Carbas, LFM da Silva
Poster 4	Durability of tube fit joints for busbar–prismatic cell interconnections in electric vehicles **(EM26_11)**	GFS Ferreira, MM Kasaei (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, LFM da Silva
Poster 5	Thermal–electrical performance and interfacial durability of overmolded polypropylene compound insulation for EV busbars **(EM26_12)**	VPNC Henriques, MM Kasaei, RCJ Carbas (University of Porto, Portugal), EAS Marques1, J Hrachova, LFM da Silva
Adhesive bonding		
Poster 6	A comparative study of thermoplastic and thermoset adhesives for CFRP joints under varying temperatures and strain rates **(EM26_13)**	RCJ Carbas (University of Porto, Portugal), F Ribeiro, EAS Marques, LFM da Silva
Poster 7	Characterization and debonding of adhesive tapes for prismatic cell-to-cell bonding **(EM26_15)**	VCMB Rodrigues (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva
Poster 8	Interface and durability assessment of an epoxy-thermoplastic film for reusable adhesive bonding in horseshoeing **(EM26_17)**	CMC Ferreira (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva
Poster 9	Exacerbated roughness patterns on adhesive flow in manufacturing bonded joints **(EM26_21)**	D Garcia (INEGI, Portugal), A Akhavan-Safar, RJC Carbas, EAS Marques, J Hrachova, AMP Afonso, LFM da Silva
Poster 10	Design, validation, and manufacturing insights of a custom cyclic creep testing station for pressure-sensitive adhesives **(EM26_27)**	EMD Fernandes, BD Simões (INEGI, Portugal), EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva
Optimization of manufacturing processes		
Poster 11	Development and characterization of waste-based biomaterials **(EM26_52)**	J Seijo, H Domínguez, MD Torres (University of Vigo, Spain)
Poster 12	The difference between Conventional and Conformal Cooling Channels on the Warpage of High-precision Optical Lenses **(EM26_54)**	A Ghodsi, H Barghikar P Mosaddegh (Isfahan University of Technology, Iran)

Friday 8 May 2026	
	Room B032
8:40*	Hybrid micromachining - a paradigm shift in micromanufacturing **(EM26_3)** X Luo (University of Strathclyde, UK)
	Session 5 – Machining (Chair: X Luo and R Laheurte)
	Room B035
9:20	Environmental assessment of rough milling: Conventional vs. dynamic trochoidal strategies **(EM26_6)** M Jeulin (University of Bordeaux, France), R Laheurte, P Darnis
9:40	An experimental method for measuring kinematic fields in orthogonal machining **(EM26_41)** L Raulin (University of Bordeaux, France), R Laheurte, M Calamaz, D Coupard
10:00	Reliability investigation of measurement acquisition chains of consumption in machining processes **(EM26_22)** A Laffitte (University of Bordeaux, France), R Laheurte, P Darnis, M Jeulin
10:20	A-axis support redesign for a 5-axis stone-cutting CNC: Lightweighting via topology optimization and wire-fed AM **(EM26_38)** JR Matos (INEGI, Portugal), J Castro, L Garrido, C Costa, F Barbosa, A Gouveia
10:40-11:00	**COFFEE BREAK**
	Session 6 – Additive manufacturing II (Chair: MF Vaz and RD Vicente)
	Room B032
11:00	Fatigue damage tolerance of additively manufactured metals **(EM26_46)** S Stammkoetter, N Kloos, P Karentzopoulos, M Teschke, A Koch, F Walther (TU Dortmund University, Germany)
11:20	Functionally graded adhesive joints fabricated via multi-material additive manufacturing **(EM26_45)** M Frascio (University of Genoa, Italy), M Minuto, M Gulino, S Morchio, F Musiari, L Rosseti
11:40	Hybrid wire-arc additive manufacturing for customized three-dimensional thin-walled components **(EM26_30)** PMS Rosado, RFV Sampaio, JM Medeiros, JPM Pragana, IMF Bragança (Polytechnic of Lisbon, Portugal), CMA Silva, PAF Martins
12:00	Limitations of cantilever geometries for calibrate the inherent strain values used in L-PBF modelling **(EM26_48)** BM Marques, DM Neto (University of Coimbra, Portugal), MC Oliveira, LF Menezes
12:20	Investigation of 3D-printed carbon PEEK composites using shearography **(EM26_33)** V Pagliarulo (National Council of Research, Institute of Applied Sciences & Intelligent Systems (CNR-ISASI) "E. Caianiello", Italy), M Paturzo
12:40	Design for additive manufacturing of a filter for cracking microwave pyrolysis gases **(EM26_53)** R Dorado-Vicente (Universidad de Jaén, Spain), E Torres-Jiménez, L Robles-Lorite, F Cruz-Peragón
13:00-14:00	**LUNCH BREAK**
	Room B032
14:00*	Data-empowered sensing: A keystone for smart manufacturing **(EM26_2)** RX Gao (Case Western Reserve University, OH, USA)

	Session 7 – Optimization of manufacturing processes (Chair: A Catapano and R Comesaña)
	Room B032
14:40	An alloy-specific mechanical criterion for predicting solidification cracking in Al–Mg alloys **(EM26_23)** N Coniglio (Arts et Métiers Institute of Technologies, France)
15:00	Improvement of automotive control cable production by automation principles **(EM26_34)** JPM Pinto, AFV Pedroso (Polytechnic of Porto, Portugal), RDSG Campilho, FJG Silva
15:20	Industrial applicability of beam theory under large strain conditions **(EM26_32)** C Zehetner (University of Applied Sciences Upper Austria, Austria), C Reisinger, S Mayr
15:40	Thermal effects on the fatigue behaviour of H13 hot forging tool steel **(EM26_29)** E Calvo-García, M González-Longueira, H Sajjad, M González-Quintas, A Riveiro, R Comesaña (University of Vigo, Spain)
16:00-16:20	**COFFEE BREAK**
	Session 8 – Adhesive bonding (Chair: LFM da Silva and M Frascio)
	Room B032
16:20	Novel practical life prediction tools for fatigue design of adhesively bonded structures **(EM26_8)** A Akhavan-Safar (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
16:40	Thermally triggered interfacial debonding for lid to frame disassembly in electric vehicle battery pack **(EM26_14)** VCMB Rodrigues (INEGI, Portugal), MM Kasaei, EAS Marques, RJC Carbas, R Szymanski, M Olive, LFM da Silva
17:00	Universal creep kinetics framework for pressure-sensitive adhesives: predictive modelling for manufacturing lifecycle optimization **(EM26_26)** BD Simões (INEGI, Portugal), EAS Marques, RJC Carbas, LFM da Silva
17:20	A novel manufacturing process for testing and adhesive joining of full culm bamboo **(EM26_42)** Y Windeln (FH Aachen University of Applied Sciences, Germany), M Schleser, S Kallweit, A Schwarz
17:40	Improving equine welfare: high performance adhesive films for fast and reusable horseshoe attachment **(EM26_16)** CMC Ferreira (INEGI, Portugal), BD Simões, EAS Marques, RJC Carbas, LFM da Silva
18:00	A cost-effective synthetic rat sciatic nerve model for mechanical testing of tissue adhesives **(EM26_44)** M Minuto, M Frascio, A Lagazzo, A Spallarossa, G Taccola, V Belotti, M Avalle, L Rosseti (University of Genoa, Italy)
20:00	**EM2026 BANQUET (Restaurant Vincci Porta de Ferro)**