



2026

ITHEC

8th International Conference
& Exhibition on
Thermoplastic Composites

Programm

28 - 29 October 2026
Messe Bremen, Germany

www.ithec.de

	HANSE SAAL	KAISEN SAAL	LLOYD SAAL	HANSE SAAL	FOYER
9:00	Welcome by Prof. David May				
9:30	Keynote Isabell Gradert, TBD				
	JOINING TECHNOLOGIES 1	TRANSPORT, AUTOMOTIVE & ENGINEERING	EMERGING TECHNOLOGIES 1	POSTERSESSION	EXHIBITION
10:20	Development of a CF/LMPAEK Stiffened Skin Demonstrator for an A320 Slide Raft Container using Thermoforming and Robotic Continuous Ultrasonic Welding NIGEL VAN NIEROP, SAM XL	Challenges in Extrusion-Based Thermoplastic Pultrusion of Glass and Hemp Fiber Reinforced Profiles DANIEL BREINL, FRAUNHOFER INSTITUTE FOR MACHINE TOOLS AND FORMING TECHNOLOGY IWU	Thermoplastic Sheet Winding for High-Performance Pressure Vessels – Pathways towards Type V Tanks JENS EMMRICH, TU CHEMNITZ-PROFESSORSHIP OF LIGHT-WEIGHT STRUCTURES / POLYMER TECHNOLOGY	In addition to the conference presentations, 24 experts will be presenting their work in the form of research posters. The poster area is located in the Hanse Saal.	The exhibition at ITHEC showcases the latest products, technologies and services offered by over XX leading companies and research institutions in the field of thermoplastic composites.
10:45	Novel Induction Welding Methodology for Welding of Thick LMPAEK Composite L-Stiffeners to Thick Skins Using Electromagnetic-Thermal Process Development KASPER SIJMONS, NETHERLANDS AEROSPACE CENTRE	Investigation in the formation of warpage during the stamp forming process of GF/PA6 laminates as a result of temperature and layup configuration HANNAH DECKER, FRAUNHOFER INSTITUTE FOR CHEMICAL TECHNOLOGY ICT	Capabilities of Robot-Based Double-Sided Incremental Hot-forming of Fiber-Reinforced Thermoplastics CHRISTIAN-ANDRÉ KEUN, COMPRISETEC GMBH		
11:10	COFFEE BREAK		COFFEE BREAK		
11:40	Development of a process-modelling tool for thermoplastic composites welding technologies FRANCESCO RONDIN, THERMOPLASTIC COMPOSITES RESEARCH CENTER	Hybrid Thermoplastic Composite Power Tool Manufactured in an Integrated Tape Winding and Inside-Molding Process MICHAEL STEGELMANN, ANYBRID GMBH	Repair of thermoplastic composite skins by melting, a practical approach PETER NIJHUIS, NETHERLANDS AEROSPACE CENTRE (NLR)	During part of the lunch breaks (between 13.40 and 14.50), the poster presenters will be available at their posters to answer questions.	
12:05	Simulation-Aided Development of an Induction Welding Process for a Curved Thermoplastic Door Panel THOMAS HOFFMANN, LEIBNIZ-INSTITUT FÜR VERBUNDWERKSTOFFE	Thermoplastic Composite Hydrofoils for Offshore Sailing: From Material Selection to In-Service Structural Validation ADRIEN MARCHANDISE, AVEL ROBOTICS, OPENSEA LABS, UNIVERSITÉ BRETAGNE SUF	Electrical Conductivity of Low-Shear Recycled C/PPS as a Multi-Functional Performance Indicator in Aerospace YANNICK BUSER, THERMOPLASTIC COMPOSITES APPLICATION CENTER (TPAC)		
12:30	Comparative evaluation of Continuous Ultrasonic Welding, Induction Welding and Conduction Welding of CF/LMPAEK: Performance and application potential ABHAS CHOUDHARY, SAM XL	Thermoplastic Composite Pipes (TCP) for Hydrogen Distribution: Design, Qualification, and Performance PETER HANSEN, HIVE COMPOSITES	Manufacturing approach for loadbearing thermoplastic pressure vessels CEDRIC FUCHS, LEIBNIZ-INSTITUT FÜR VERBUNDWERKSTOFFE		
13:00	LUNCH		LUNCH		
	STRUCTURES & PROCESSES	EMERGING TECHNOLOGIES 2	JOINING TECHNOLOGIES 2	POSTERSESSION	EXHIBITION
15:00	Thermoforming of advanced Thermoplastic Sandwich Structures for use in Secondary Aircraft Structures RALF SCHLIMPER, FRAUNHOFER INSTITUTE FOR MICROSTRUCTURE OF MATERIALS AND SYSTEMS IMWS	A systematic approach of investigating the damage-dependent gas permeability properties of CF-PA11 composite JAN CONDÉ-WOLTER, DRESDEN UNIVERSITY OF TECHNOLOGY	Assessing weld quality and process efficiency when resistance welding CF-LMPAEK composite: effect of heating element type MARCELA MATUS-AGUIRRE, COGIT COMPOSITES		
15:25	Thermoplastic Composite Control Surface STEPHAN BECKER, FACC OPERATIONS GMBH	Continuous Recycling of Thermoplastic Composites: From Pilot Projects to Industrial Implementation HANS LUINGE, SPIRAL RECYCLED THERMOPLASTIC COMPOSITES BV	An Experimental and Numerical Investigation into Contact Pressure Distribution in CF/PEKK Omega Hat and Skin Assemblies ANDRES CASTRO, UNIVERSITY OF SOUTHERN QUEENSLAND		
15:50	Manufacturing Process of a Thermoplastic Composite Access Door for Auxiliary Power Unit Maintenance ISABEL MARTÍN, FIDAMC	CONTIjoin – Laser In-Situ Welding for High-Rate Manufacturing of Thermoplastic Rotor Blade Spar Caps MAURICE LANGER, FRAUNHOFER IWS	Design, Manufacturing and Test of a Highly Loaded H2 Tank Mount MATTHIAS HORN, GERMAN AEROSPACE CENTER (DLR), INSTITUTE OF STRUCTURES AND DESIGN		
16:15	COFFEE BREAK		COFFEE BREAK		
16:45	In-situ AFP: One technology – Two solutions. Or: How to produce a differential cryogenic tank with only one technology MATTHIAS BEYRLE, GERMAN AEROSPACE CENTER (DLR), CENTER FOR LIGHTWEIGHT-PRODUCTION-TECHNOLOGY	Characterization of thermoplastic composites for cryogenic and energy storage applications ALBERTO LARIO CABELLO, TORAY ADVANCED COMPOSITES	Scalable manufacturing of media-tight hybrid connections by using the hyJOIN® process TILMAN GÜNTHER, HYJOIN GMBH	see page XX	see page XX
17:10	Toward High-Speed Thermoplastic AFP with Dual-Laser Gantry Architecture for In-Situ Consolidation CAROLINE FRÉDÉRIX, COEXPAIR DYNAMICS	Tailored Fiber Placement of Poly(xylylene sebacamide)/Carbon Fiber Hybrid Yarns for Thick Thermoplastic Composite Structures SASCHA BRUK, LEIBNIZ-INSTITUT FÜR POLYMERFORSCHUNG DRESDEN	Highly Loaded Thermoplastic Wing Rib MARTIN DENIZE, DAHER		
17:40	BEST PAPER AWARD				
19:00	RATSKELLER DINNER		RATSKELLER DINNER		

	HANSE SAAL	KAISEN SAAL	LLOYD SAAL	HANSE SAAL	FOYER
	MATERIALS PROCESSING	TRANSPORT, AUTOMOTIVE & ENGINEERING 2	ADDITIONAL SESSION IN THE MORNING	POSTERSESSION	EXHIBITION
8:15	Resource-efficient production of organosheets from rCF for thermoformed aerospace structures KATRIN JOBKE, SÄCHSISCHES TEXTILFORSCHUNGSINSTITUT	Advanced Thermoplastic Composite Materials for Next Generation BEV Battery Systems TOBIAS HALL, KAUTEX TEXTRON GMBH & CO. KG	Performance evaluation of HPHT exposed thermoplastic composites recovered from energy applications CHUNDU TAMANG, UNIVERSITY OF SOUTHERN QUEENSLAND	In addition to the conference presentations, 24 experts will be presenting their work in the form of research posters. The poster area is located in the Hanse Saal.	The exhibition at ITHEC showcases the latest products, technologies and services offered by over XX leading companies and research institutions in the field of thermoplastic composites.
8:40	Advancements in high volume manufacturing of discontinuous long fibre thermoplastic composites SÉBASTIEN KOHLER, GREENE, TWEED & CO.	Innovative Approaches for Sustainable, Stable, and Automatable Metal-Plastic Joining ANNETT KLOTZBACH, ENABLING CONNECTIONS GMBH	Thermoplastic vs Thermoset Matrix Continuous Fibre Composites: a Comparative Analysis of Compressive Strength Using Analytical Modelling and Experimental Characterisation KELIG HAREL, INSTITUT DE RECHERCHE DUPUY DE LÔME		
9:25	Keynote 2				
	JOINING TECHNOLOGIES 3	TRANSPORT, AUTOMOTIVE & ENGINEERING 2	EMERGING TECHNOLOGIES 3	POSTERSESSION	EXHIBITION
10:15	Simulation-assisted process design for sustainable high-rate manufacturing JAN YORRICK DIETRICH, FASERINSTITUT BREMEN (FIBRE)	Replacing Mica: A Hybrid Material Approach to Battery Case Fire and Thermal Protection MAXIMILIAN SCHAEFER, SGL	Influence of Ageing on the Tack and Draping Behavior of Partially Polymerized Thermoplastic Prepregs THOMAS NEUMEYER, LEIBNIZ-INSTITUT FÜR VERBUNDWERKSTOFFE		
10:40	COFFEE BREAK		COFFEE BREAK		
11:10	Advancing Robotic Ultrasonic Welding: Sensor-Based Control and Integrated Inspection for Complex Thermoplastics MARYAM AHANPANJEH, HELMUT SCHMIDT UNIVERSITY, CTC	Thermoplastic Composite Sandwich Structures and Novel TS-Molding Process for Sustainable Mobility VARUN KUMAR MINUPALA, FRAUNHOFER IMWS	Vibration-Induced Changes in Friction Behavior of Thermoplastic Tapes at Forming-Relevant Temperatures GEORG ZEEB, KARLSRUHE INSTITUTE OF TECHNOLOGY, INSTITUTE OF VEHICLE SYSTEMS TECHNOLOGY, FRAUNHOFER ICT	During part of the lunch breaks (between 13.40 and 14.50), the poster presenters will be available at their posters to answer questions.	
11:40	Thermoplastic Resistance Welding of a Door Surround Structure SIMON BAUER, GERMAN AEROSPACE CENTER (DLR), INSTITUTE OF STRUCTURES AND DESIGN	Quiet, Lightweight, Scalable: High-Rate Manufacturing of Next-Generation Thermoplastic Composite Drone Rotor Blades EVA KOBLER, ENGEL AUSTRIA GMBH	Methodical Design and Construction of a Creep Testing Machine for Composite Cruciform Specimens Under Biaxial Loads OLIVER WEBER, OTH REGENSBURG		
12:05	Panel Discussion	Lightweight structural components by continuous fiber additive manufacturing TESSA TEN CATE, TNO	Process Development of Carbon Fiber Thermoplastic UD Tapes for AFP SEBASTIAN NENDEL, CETEX INSTITUT		
12:30	TBD	Characterization of Fabric Distortion in Thermoplastic Composites using Broadband Acoustic Waves PHILIPP BRANDES, KUNSTSTOFFTECHNIK PADERBORN (KTP)	Manufacturing of a thermoplastic composite aileron demonstrator by in-situ consolidation JAVIER ÁVILA, FIDAMC		
13:00	LUNCH		LUNCH		POSTER PRESENTER Q&A
	MATERIAL INSIGHTS	EMERGING TECHNOLOGIES	MATERIALS	POSTERSESSION	EXHIBITION
15:00	A Simulation-Experimental Study on Interface Adhesion Optimization in Injection Overmolded Aircraft Components ROBIN FACHTAN, NEUE MATERIALIEN BAYREUTH	Accelerating Thermoplastic Composite Manufacturing Through Induction Heating and Controlled Cooling KENNETH FROGNER, COREBON AB	Spinning of hybrid yarns for thermoplastic multi-matrix composites manufactured via tailored fiber placement MORGAN RENARD, LEIBNIZ-INSTITUT FÜR POLYMERFORSCHUNG DRESDEN		
15:25	High-Performance Thermoplastic Material Solutions for High-rate Manufacturing of Airframe Structures LAMIA SALAH, TORAY ADVANCED COMPOSITES	Vibration-assisted impregnation with subsequent thermoforming of thermoplastic composite laminates JULIUS FRANK, AACHEN CENTER FOR INTEGRATIVE LIGHTWEIGHT PRODUCTION (AZL)	Innovative yarn constructions for functional, bio-based and high-impact composite applications CHRISTIAN HERRMANN, ITM DRESDEN		
15:50	Micromechanical Damage Initiation in Thermoplastic CFRP under Cryogenic Conditions PATRICK NOWAKOWSKI, FASERINSTITUT BREMEN (FIBRE)	Assessment of repeated reconsolidation repairs for impact damaged thermoplastic composites ARTHUR HAVERKORT, THERMOPLASTIC COMPOSITES RESEARCH CENTER (TPRC)	Highly Oriented rCF-PAEK Tapes for Complex Thermoplastic Composite Structures: Drapability, Damping and Impact Performance CHRISTIAN GARTHAUS, HERONE GMBH		
16:15	COFFEE BREAK		COFFEE BREAK		
16:45	Crystallisation in LMPAEEK Polymers and their Composites: An Investigation of Model Accuracy MOLLY HALL, UNIVERSITY OF SOUTHERN QUEENSLAND	3D Non-Destructive Mapping of Crystallinity in Thermoplastic Composite Parts Using X-Ray Diffraction PETER FROBERG, THIAX	Industrialization of Recycled Carbon Fibers for Structural Thermoplastic Compounds: From Waste Stream to High-Performance Applications MARCEL SITTEL-FARAJ, CARBON FIBER CONVERSIONS GMBH	see page XX	see page XX
17:10	Composite thermoforming of surface functionalised stiffeners for aircraft structures DANIEL FRICKE, GERMAN AEROSPACE CENTER (DLR), INSTITUTE OF STRUCTURES AND DESIGN	Development of Joint Free and Structurally Integrated Thermoplastic Composite Connecting Elements Using Partially Flowable Textile Constructions LUKAS MÖLLER, INSTITUTE OF TEXTILE MACHINERY AND HIGH PERFORMANCE MATERIAL TECHNOLOGY DRESDEN	Advanced Manufacturing of Complex-Shaped Thermoplastic Composites: Process Capability and Material Performance of TFP-Based GF/PA6 Hybrid Structures KAI UHLIG, LEIBNIZ-INSTITUT FÜR POLYMERFORSCHUNG DRESDEN		
17:40	Farewell by Prof. David May				