

WORKSHOP
Innovative Product Development by Additive Manufacturing
September 17, 2025

PROGRAM

08.30	Registration
09.00	Welcome Prof. Dr.-Ing. R. Lachmayer, Leibniz Universität Hannover, IPeG Prof. Dr.-Ing. S. Kaierle, Laser Zentrum Hannover e.V.
09.15 – 10.15	Advanced Additive Manufacturing Processes Metallic and ceramic materials for the additive manufacturing of components for sustainable hydrogen production Niclas Zerner, TU Clausthal Real-Time In-Situ Filament Shape Detection via Optical Ellipse Fitting Prof. Dr. Marcus Menzel, Ostfalia Hochschule für Angewandte Wissenschaften Load Introduction in Electrochemically Metallized Polymer Lattice Structures: Experimental Evaluation of Interface Design Concepts Marco Noack, TU Darmstadt
10.15 – 10.35	Break
10.35 – 11.55	Innovative Design and Optimization Methods Automated Design and Validation of Components with Local Material Properties in Metal Additive Manufacturing Philipp Sauberzweig, Fraunhofer IAPT Accelerating Additive Manufacturing using solid-state laser beam steering systems Dr.-Ing. Marius Lammers, INLEAP Photonics GmbH An Industry Compatible Framework for Automated Part Identification in Metal Additive Manufacturing Claudius Ellsel, TU Berlin Layer by Layer – How Additive Manufacturing can innovate Aircraft Engine Maintenance Antonios Giourgas, MTU Maintenance Hannover
11.55 – 12.40	Lunch Break
12.40 – 13.45	Demonstration of AM Machines at the new research building “SCALE”

13.45 – 14.45	Poster session: Printed Optics – PhoenixD A Phase Transformation Model for Glas with Thermo-Mechanical Coupling Using Neighbor Element Method for 3D-Printing Tobias Rudolf, Leibniz University Hannover, IKM In-line metrology for two-photon polymerization Hannes Robben, Leibniz University Hannover, HOT Damage Potential of Post-Processing Methods in Vat Photopolymerization of Additively Manufactured Glass Components Simon Teves, Leibniz University Hannover, IPeG Review on rotative printing for high-volume polymer waveguide processing Jonathan Pleuß, Leibniz University Hannover, ITA
14.45 – 15.05	Break
15.05 – 16.05	Novel Applications of Additive Manufacturing Integration of virtual laboratories and additive manufacturing for customizable medical training systems Anastasiia Lytvyn, Kharkiv National University of Radioelectronics Advanced Additive Manufacturing Processes Novel high-deposition AM technology using forming jaws with the laser-assisted double-wire with non-transferred arc process Alexander Barroi, Laser Zentrum Hannover e.V. Quality analysis in rubber 3D printing: Worlds first 3D printed rubber benchy Hans Helge Schwieger, Leibniz University Hannover, ITA
16.05	Farwell