

POSTER SESSIONS

THURSDAY 10TH SEPTEMBER 2026

Time slot (4 min. pitch)		POSTER SESSION 2	Chairpersons: Marcos Carreres, Benjamín Plá, Pedro Quintero UPV, Spain
14:30h	13	Combined Numerical and Experimental Study of Mixture Formation Strategies and their Impact on Anomalies in Heavy-Duty PFI Hydrogen ICE (PP) S. Plöckinger, P. Kappacher, E. Schutting, C. Trapp Technische Universität Graz, Austria	
14:34h	14	Velocity Field Measurements on Direct Injections for Spark-Ignited Hydrogen Engines (PA) İ. Alp, A. Wöste, M. Peters, A. Dreizler, B. Böhm Technical University of Darmstadt, Germany	
14:38h	15	Hydrogen Direct Injection Effects on Mixture Formation and In-cylinder Flow in Spark-Ignition Engines (PA) E. Rolland ¹ , B. Traut ¹ , M. Peters ¹ , N. Jovicic ² , P. Jochmann ² , B. Böhm ¹ , C. Hasse ¹ ¹ Technical University of Darmstadt, Germany ² Robert Bosch - Power Solutions, Germany	
14:42h	16	Combined Experimental and Numerical Turbulence Characterization in Hydrogen-Fueled Internal Combustion Engines (PA) B. Traut ¹ , P. Ye ¹ , S. Holguin ¹ , V. Schuh ¹ , M. Schneider ¹ , C.E. Frouzakis ² , H. Nicolai ³ , B. Böhm ¹ , C. Hasse ¹ ¹ Technical University of Darmstadt, Germany ² ETH Zurich, Switzerland ³ McGill University, Canada	
14:46h	17	Hydrogen-Diesel Dual-Fuel: Maximizing Hydrogen Energy Share (PA) S. Latten, T.R. Valk, M.C.M. Cuijpers, L.M.T. Somers, N.C.J. Maes Eindhoven University of Technology, The Netherlands	
14:50h	18	Effect of Hydrogen Energy Share on Efficiency, Combustion Stability and Emissions in Methanol-Hydrogen Dual-Fuel Operation of a Heavy-Duty Spark-Ignition Engine (PA) M.S. Panithasan, R. Xu, J.W.G. Turner King Abdullah University of Science and Technology, Saudi Arabia	
14:54h	19	Enhanced Knock Detection in Hydrogen Engines Using Time-Frequency Signal Analysis (PP) B. Kinkhabwala ¹ , U. Wagner ¹ , S. Srihari ² , T. Koch ¹ ¹ Karlsruhe Institute of Technology, Germany ² Amrita School of Engineering, India	
14:58h	20	Experimental Investigations on the Effects of Intake Temperature, Compression Ratio, Injection Strategy and Water Injection on Pre Ignition in a Hydrogen-Fueled SI Research Engine (PP) D. Serrano, B. Londos, X. Gautrot, O. Laget IFP Energies nouvelles, France	
15:02h	21	Measurement of Lubricant Oil Consumption Characteristics in Hydrogen Engines: Investigation of Effects from Transient Operation and Abnormal Combustion (PP) H. Arakawa ¹ , Z. Wang ¹ , Y. Moriyoshi ¹ , T. Kuboyama ¹ , M. Gohl ² , R. Wulff ² , M. Knissel ² , M. Braun ² , T. Vogt ² ¹ Chiba University, Japan ² Automobil-Prüftechnik Landau, Germany	
15:06h	22	1D Modelling for the Crankcase Ventilation Optimization of an H2 Engine (PP) P.-E. Prétot ¹ , D. Chalet ¹ , J. Migaud ² , A. Link ³ , M. Pittl ⁴ ¹ Nantes Université, France ² MANN+HUMMEL France, France ³ MANN+HUMMEL GmbH & Co. KG, Germany ⁴ MANN+HUMMEL Service s. r. o., Czech Republic	
15:10h	23	Electric Powertrain Design for a Dual Swappable Battery Two-Wheeler (PA) A. Wadekar ¹ , J.J. Panah ² , S. Mehranfar ² , A. Andwari ² , M. Jabbari ¹ , M. Babaie ¹ ¹ University of Leeds, UK ² University of Oulu, Finland	
15:14h	24	Production of Strategic Fuels from ELT for the Armed Forces: A Model for Energy Resilience and National Defense (-) E. J. Jiménez-Regén ¹ , F. J. Bastante ¹ , P. Dorado ² , M. Carmona ² ¹ Ejército de Tierra ² Universidad de Córdoba	