

PROGRAMME

TUESDAY 8th SEPTEMBER 2026

17:30-20:00	Registration
19:30-20:15	Welcome address José E. Capilla – UPV Rector Raúl Payri - CMT – UPV. Steering Committee Roberto Miguel-Nieto - HORSE, Spain. Keynote lecture
20:15-21:30	Welcome cocktail

Registration will also be open every morning:

- On 9th September from 7:30 am onwards
- On 10th and 11th September from 8:00 am onwards

WEDNESDAY 9th SEPTEMBER 2026

S1.1	AMMONIA INJECTION & COMBUSTION	Chairperson: Zhixia He Jiangsu University, China
8:30-9:00	KEYNOTE LECTURE: Decarbonization of Large Engine Applications Nicole Wermuth. Technische Universität Graz, Austria	
9:00-9:25	Large-Eddy Simulation of Ammonia Direct-Injection Combustion: Comparing Auto-Ignition and Diesel Spray-Assisted Ignition W. Siddiqui ¹ , G. Bracho ² , S. Karimkashi ¹ , J. Hyvönen ³ , V. Vuorinen ¹ ¹ Aalto University, Finland ² Universitat Politècnica de València, Spain ³ Wärtsilä Finland Oy, Finland	
9:25-9:50	Numerical and Experimental Investigation of Ammonia Spray at Engine Relevant Conditions R. Soni ¹ , D. Pinilla-Fernández ² , J.M. García-Oliver ² , G. Bracho ² , C. Gößnitzer ¹ , S. Posch ³ , G. Pirker ¹ ¹ Large Engines Competence Center, Graz, Austria ² Universitat Politècnica de Valencia, Spain ³ Technische Universität Graz, Austria	
9:50-10:15	Understanding NH₃-H₂ Co-Combustion in a Spark-Ignited CFR Engine J. Loprete ^{1,2} , J.P. Trelles ³ , N. Van Dam ³ , J.H. Mack ³ , D. Assanis ^{1,2,4} ¹ Stony Brook University, USA ² Advanced Energy Research and Technology Center, USA ³ University of Massachusetts Lowell, USA ⁴ Institute for Advanced Computational Science, USA	
10:15-10:45	Coffee break	
S1.2	EMISSIONS MEASUREMENT & AFTERTREATMENT	Chairperson: Christian Tomanik CMT-Engineering, Germany
10:45-11:10	Challenges and Solutions of Exhaust Gas Measurement for Alternative Fuels S.C. Eichmann ¹ , T. Bodsch ² ¹ HORIBA Europe, Oberursel, Germany ² HORIBA Europe, Darmstadt, Germany	
11:10-11:35	Experimental Studies on the Effects of Catalyst Layer Porosity and Active Site Amount on NO_x Purification Characteristics in Urea SCR Catalysts F. Yoshida, Y. Ueki, R. Sok, J. Kusaka Waseda University, Japan	
11:35-12:00	A-EAT Demonstration of Reducing Global and Local Vehicle Emissions with Hybrid Powertrain, Dedicated ATS, MtG Advanced Fuel, and an Impact Assessment Using Air Quality Modelling T. Sarica ¹ , E. Laigle ¹ , V. Gordillo ¹ , M. Mitschler ¹ , V. Gaste ² , M. Olteanu ³ , C. Chaillou ¹ ¹ Aramco Fuel Research Center, France ² AVL LMM, France ³ HORSE Technologies, Romania	

WEDNESDAY 9TH SEPTEMBER 2026

12:00-12:25	Catalytic Aftertreatment Systems for Ammonia-Diesel Dual Fuel Combustion A. Sayeed ¹ , N.D. Khedkar ¹ , M. Wu ¹ , M. Garroum ¹ , A. Cova-Bonillo ¹ , J.M. Herreros ¹ , S. Zeraati-Rezaei ¹ , A. Tsolakis ¹ , P. Millington ² , S. Alcove-Clave ² , A. Tony ² , T. Samuels ² , J. Sanz-Argent ³ ¹ University of Birmingham, UK ² Johnson Matthey Technology Centre, UK ³ Fundación Valenciaport, Spain
12:25-12:50	Robustness of Post SCR NOx Sensor Placement Under NH₃ Spatial Non-Uniformity: A CFD Ensemble Study I.F. Cozza ¹ , M.P. Centini ¹ , C. Ciaravino ¹ , R. McAlpine ² ¹ Dumarey Automotive Italia, Italy ² General Motors, USA
12:50-14:30	Lunch
14:30-15:30	Poster session 1 / Commercial exhibition / Visit 1 to CMT's laboratories
S1.3	SUSTAINABLE FUELS INJECTION Chairperson: Inés Muñoz Applus IDIADA, Spain
15:30-16:00	KEYNOTE LECTURE: Nozzle Internal Cavitating Flow and Spray of High-Pressure Methanol/Liquid Ammonia injection system Zhixia He. Jiangsu University, China
16:00-16:25	High-Fidelity 3D-CFD Simulation of Hydrogen Injection: Different Modelling Approaches Balancing Accuracy and Computational Efficiency C. Segatori, M. Orlando, A. Scalambro, A. Piano, F. Millo Politecnico di Torino, Italy
16:25-16:50	Injection and Fuel Blending Strategies for Low-Temperature Ignition of Methanol in Compression-Ignition Applications J. Manin, D.K. Eyice, D. Lopez-Pintor Sandia National Laboratories, USA
16:50-17:15	Optical Study on Spray Combustion Characteristics of E-Diesel and its Surrogate under Compression-Ignition Engine-Like Conditions Mohamed Khalaf ¹ , Shuo Feng ¹ , Tiemin Xuan ¹ , Licheng Zhu ¹ , Min Xu ¹ , Jiawei Cao ² , R. Payri ³ , Zhixia He ⁴ , Ming Jia ⁵ ¹ School of Energy and Power Engineering, Jiangsu University, China ² Department of Marine Technology, NTNU, Norway ³ Universitat Politècnica de València, Spain ⁴ Institute for Energy Research, Jiangsu University, China ⁵ Dalian University of Technology, China
17:15-17:45	Coffee break
S1.4	SPARK IGNITION COMBUSTION PHENOMENA Chairperson: Paul Miles Retired from Sandia National Laboratories, USA
17:45-18:10	Knocking Behavior of Renewable Fuels in a Miller Cycle Gasoline Engine H.F. Schmid, J. Pfeil, T. Koch Karlsruhe Institute of Technology, Germany
18:10-18:35	Effect of Ambient Pressure on Hydrogen Jet Structure and Combustion Characteristics under Controlled Local Equivalence Ratio Conditions Heetae Yang, Youngmin Ki, Justin Jungho Kim, Joonsik Hwang, Choongsik Bae Korea Advanced Institute of Science and Technology, Republic of Korea
18:35-19:00	In-Cylinder Mixture Field Measurements in Spark-Ignited DI Hydrogen Engines M. Peters, I. Alp, J. Erhard, P. Ye, A. Dreizler, B. Böhm Technical University of Darmstadt, Germany
19:00-19:25	Characterization of the Mixture Preparation Process for a H₂ Combustion System in a Transparent Engine Using Laser-Induced Fluorescence (LIF) and 3D-CFD-Simulation J.N. Geiler ¹ , D. Kumar ² , K.G. Stapf ¹ , P. Gastaldi ² ¹ Robert Bosch - Power Solutions, Germany ² Aramco Fuel Research Center, France