THIESEL 2026 Provisional programme

Friday 11th September

S3.1	**THERMAL PHENOMENA ANALYSIS**
8:30-9:00	KN3.1 Anna Stefanopoulou, University of Michigan, USA
9:00-9:25	Kinetic Modeling of Gas Generation, Evolution, and Combustion Risks During Thermal Runaway of Lithium-Ion Batteries E. Jadot[1,2,3], B. Xu[3], M. Lecompte[3], G. Gimenez[2], T. De Bruin[3], S. Benjamin[2], L. Catoire[1] [1]ENSTA, Institut Polytechnique de Paris, France [2]Saft Batteries, Total S.A., France [3]IFP Energies Nouvelles, France
9 :25-9 :50	Design and Experimental Evaluation of a Hybrid Cooling Battery Thermal Management System Using Dummy Cells A. Salman[1], A. Nourian[1], M. Babaie[2], S. Mahboubi Heydarabad[1], J. Jahan Panah[3], A. Andwari[3] [1]University of Salford, UK [2]University of Leeds, UK [3]University of Oulu, Finland
9 :50-10 :15	High-Speed Infrared Thermography of Convective and Radiative Wall Heat Transfer in Jet-Mixed Turbulent Hydrogen Combustion F. Shimizu[1], M. Bardi[2], H. Quintens[2], E. Daudre[2,3], C. Bramoullé[2], T. Aizawa[1] [1]Meiji University, Japan [2]Institut Carnot IFPEN Transports Energie, France [3]Poitiers University, France
10:15-10:45	Coffee break
S3.2	**MODELING OPTIMIZATION & ANALYSIS**
10:45-11:10	Accelerating Model-Based Powertrain Optimisation: Meeting the Future Demands of Regulation Based on Real-Driving Scenarios L. Bates[1], J.G. Prior[2], S. Whelan[1] [1]HORIBA-MIRA, UK [2]Loughborough University, UK
11:10-11:35	A Flexible Lap Time Simulation Framework for Energy Management and Control of Hybrid Power Units M. Piunti, V. Ravaglioli, G. Silvagni, S. Scaiola Università di Bologna, Italy

11:35-12:00	Multi-Objective Optimization of Engine Parameters for Improving Fuel Economy and Exhaust Emissions of Hybrid Agricultural Powertrain via Improved Crowding-Adaptive NSGA-II Considering Typical Operating Conditions Jingyu Zhu[1], Qinghan Yang, Keiya Nishida[1,2], Mingliang Wei[3] [1]Dalian University of Technology, China [2]University of Hiroshima, Japan [3]State Key Laboratory of Intelligent Agricultural Power Equipment, China
12:00-12:25	Multi-layered, backend-based, model-predictive operating strategy for a serial PHEV M. Böhme[1], M. Gerdts[1], C. Trapp[2] [1]Universität der Bundeswehr München, Germany [2]Technical University Graz, Austria
12:25-12:50	Insights for an international framework for research-oriented Automotive Life Cycle Assessment A. Bouter[1,2], G. Di Pierro[1], G.L. Patrone[1], E. Paffumi[1], M. Lopez-Juarez[2], G. Fontaras[1] [1]European Commission JRC, Italy [2]Universitat Politècnica de València, Spain
12:50-14:30	Lunch
14:30-15:30	Poster session 3 / Commercial exhibition
S3.3	**CARBON BASED SUSTAINABLE FUELS**
15300-16:00	KN3.3 Chris Hollingbery, CUMMINS, UK
16:00-16:25	Effect of neat Sustainable Aviation Fuels on mechanical behavior of two polymeric materials used in aircraft A. Domínguez-Piedrafita[1], A. Romero[1,2], R. García-Contreras[1,2] [1]Institute of Applied Research for the Aeronautical Industry - UCLM, Spain [2]School of Industrial and Aerospace Engineering - UCLM, Spain
16:25-16:50	Effect of Intake Management and Active Stratification on Combustion and Emissions of Dimethyl Ether Ignited Ammonia-Fueled Engine Y. Qiu[1], Y. Zhang[2], Y. Yang[2], Y. Zhang[2], Y. Ding[1], D. Han[1], Z. Huang[1] [1]Key Lab. Power Machinery & Engineering, Shanghai Jiao Tong University, China [2]SJTU-Wuxi Carbon Neutral Energy & Power Institute, China
16:50-17:15	From Acceleration to Pressure: ML-Based Virtual Sensing across Hydrogen and Methanol Spark-Ignition Engines Miloš Babic[1,2,3], Christian Laubichler[1], Paul Christoforetti[2], Peter Kappacher[2], Simon Buchberger[2], Eberhard Schutting[2], Stefan Posch[2,3] [1]Large Engines Competence Center, Austria [2]Graz University of Technology, Austria [3]Christian Doppler Laboratory for Physics-driven Machine Learning in Industrial Applications, Austria

17:15-17:40	Methanol/Ethanol Diffusive Combustion Initiated by Spark-Ignited Pilot Sprays T. Fuyuto, R. Ueda, K Fukui, T. Kondo, K. Nishikawa, Y. Wakisaka Toyota Central R&D Labs., Japan
17:40-18:00	CLOSURE
20:30-00:00	GALA DINNER