

TECHNICAL PROGRAM

TUESDAY, Nov. 11	8:30	9:00	Opening (Modulo 1)				
	9:00	9:30	Keynote Session (Modulo 1)				
	9:30	10:00					
	10:00	10:30	Coffee break (Modulo 0 & Modulo B)				
			Modulo 1	Modulo 2.1	Modulo 2.2	Hall 2A	Hall 2B
	Session		New Product Technology (1 of 5)	Measurement and Simulations (1 of 3)	Advanced Combustion	Renewable Energy and Alternative Fuels (1 of 7)	Materials and Manufacturing (1 of 2) & Lubricants and Tribology
	Chair		Kai Beck	Stephan Schmidt	Christian Antetomaso	Davide Di Domenico	Silvio Defanti
	Co-chair		Takuya Warashina	Keisuke Ito	Teruyoshi Morita	Yuji Araki	Tadao Okazaki
	10:30	11:00	25SETC-0014	2025-32-0013 / 20259213	2025-32-0001 / 20259201	2025-32-0058 / 20259258	2025-32-0005 / 20259205
	11:00	11:30	25SETC-0019	2025-32-0014 / 20259214	2025-32-0002 / 20259202	2025-32-0065 / 20259265	2025-32-0006 / 20259206
	11:30	12:00	25SETC-0063	25SETC-0145	2025-32-0004 / 20259204	2025-32-0061 / 20259261	25SETC-0123
	12:00	12:30	25SETC-0178	2025-32-0019 / 20259219	2025-32-0003 / 20259203	2025-32-0062 / 20259262	2025-32-0100 / 20259300
	12:30	13:00	Lunch break (Modulo 0 & Modulo B)				
	12:59	13:30					
	Session		New Product Technology (2 of 5)	Engine Technology	Two Stroke Engines (1 of 2)	Renewable Energy and Alternative Fuels (2 of 7)	Hybrid and Electric Drives (1 of 3) & Collegiate Event
	Chair		Rita Di Gioia	Luca Romani	Carlo Alberto Rinaldini	Chiara Guido	Adrian Irimescu
	Co-chair		Takuya Warashina	Masahito Saito	Tatsuya Kuboyama	Yuji Mihara	Stephen Teng
	13:30	14:00	25SETC-0045	2025-32-0090 / 20259290	2025-32-0030 / 20259230	25SETC-0075	2025-32-0095 / 20259295
	14:00	14:30	25SETC-0171	2025-32-0087 / 20259287	2025-32-0024 / 20259224	2025-32-0059 / 20259259	25SETC-0126
	14:29	15:00	25SETC-0050	2025-32-0089 / 20259289	2025-32-0026 / 20259226	2025-32-0049 / 20259249	2025-32-0045 / 20259245
	15:00	15:30	25SETC-0061	2025-32-0088 / 20259288	2025-32-0028 / 20259228	2025-32-0050 / 20259250	
	15:30	16:00	Poster session (Modulo 0)				
	16:00	16:30	Coffee break (Modulo 0 & Modulo B)				
	Session		Emissions and Environmental Impacts (1 of 3)	NVH Technology	Small Energy Systems	Renewable Energy and Alternative Fuels (3 of 7)	Diesel Engine
	Chair		Davide Di Domenico	Simona Merola	Maurice Kettner	Tommaso Lucchini	Luigi Arnone
	Co-chair		Michihisa Nakagawa	Keisuke Namekawa	Tadao Okazaki	Yuji Mihara	Yusuke Suzuki
	16:30	17:00	2025-32-0074 / 20259274	2025-32-0021 / 20259221	2025-32-0039 / 20259239	2025-32-0052 / 20259252	2025-32-0067 / 20259267
	17:00	17:30	2025-32-0077 / 20259277	2025-32-0020 / 20259220	2025-32-0040 / 20259240	2025-32-0053 / 20259253	25SETC-0056
	17:30	18:00	2025-32-0073 / 20259273	2025-32-0022 / 20259222	2025-32-0038 / 20259238	25SETC-0185	2025-32-0068 / 20259268

WEDNESDAY, Nov. 12	8:30	9:00	Panel Session (Modulo 1)			
	9:00	9:30				
	9:30	10:00				
	10:00	10:30	Coffee break (Modulo 0 & Modulo B)			
			Modulo 1	Modulo 2.1	Modulo 2.2	Hall 2A
	Session		New Product Technology (3 of 5)	Engine Components	Vehicle Dynamics and Safety (1 of 2)	Measurement and Simulations (2 of 3)
	Chair		Kai Beck	Adrian Irimescu	Alexander Winkler	Stephan Schmidt
	Co-chair		Keisuke Namekawa	Michihisa Nakagawa	Shingo Ueda	Keisuke Ito
	10:30	11:00	25SETC-0034	2025-32-0080 / 20259280	2025-32-0033 / 20259233	2025-32-0018 / 20259218
	11:00	11:30	25SETC-0168	2025-32-0079 / 20259279	2025-32-0036 / 20259236	2025-32-0016 / 20259216
	11:30	12:00	25SETC-0170	2025-32-0081 / 20259281	2025-32-0037 / 20259237	2025-32-0011 / 20259211
	12:00	12:30	25SETC-0053	2025-32-0078 / 20259278		2025-32-0017 / 20259217
	12:30	13:00	Lunch break (Modulo 0 & Modulo B)			
	12:59	13:30				
	Session		New Product Technology (4 of 5)	Powertrain Controls (1 of 2)	Two Stroke Engines (2 of 2)	Renewable Energy and Alternative Fuels (4 of 7)
	Chair		Giovanni Paolicelli	Maurice Kettner	Enrico Mattarelli	Giovanni Vichi
	Co-chair		Satoshi Takayama	Shigeho Sakoda	Akira Iijima	Kensuke Suzuki
	13:30	14:00	25SETC-0173	2025-32-0085 / 20259285	2025-32-0023 / 20259223	2025-32-0056 / 20259256
	14:00	14:30	25SETC-0175	2025-32-0083 / 20259283	2025-32-0025 / 20259225	2025-32-0057 / 20259257
	14:29	15:00	25SETC-0029	2025-32-0084 / 20259284	2025-32-0029 / 20259229	2025-32-0046 / 20259246
	15:00	15:30	25SETC-0180	2025-32-0082 / 20259282	2025-32-0027 / 20259227	2025-32-0054 / 20259254
	15:30	16:00	Poster session (Modulo 0)			
	16:00	16:30	Coffee break (Modulo 0 & Modulo B)			
	Session		New Product Technology (5 of 5)	Hybrid and Electric Drives (2 of 3)	Emissions and Environmental Impacts (2 of 3)	Renewable Energy and Alternative Fuels (5 of 7)
	Chair		Rita Di Gioia	Lorenzo Berzi	Massimo Delogu	Stanislaw Szwaja
	Co-chair		Teruyoshi Morita	Masaki Segawa	Hiromi Deguchi	Naoto Horibe
	16:30	17:00	25SETC-0182	2025-32-0093 / 20259293	2025-32-0071 / 20259271	25SETC-0115
	17:00	17:30	25SETC-0183	2025-32-0096 / 20259296	2025-32-0075 / 20259275	2025-32-0055 / 20259255
	17:30	18:00	25SETC-0184	2025-32-0091 / 20259291		2025-32-0051 / 20259251

THURSDAY, Nov. 13			Modulo 1	Modulo 2.1	Modulo 2.2	Hall 2A
	Session		Renewable Energy and Alternative Fuels (6 of 7)	Vehicle Dynamics and Safety (2 of 2)	Emissions and Environmental Impacts (3 of 3)	Data-driven Digitalization & Powertrain Controls (2 of 2)
	Chair		Giovanni Cecere	Alexander Winkler	Luigi Arnone	Lerina Aversano
	Co-chair		Yuji Araki	Shingo Ueda	Yusuke Suzuki	Shigeho Sakoda
	8:30	9:00	2025-32-0047 / 20259247	2025-32-0035 / 20259235	2025-32-0069 / 20259269	2025-32-0041 / 20259241
	9:00	9:30	2025-32-0063 / 20259263	2025-32-0031 / 20259231	2025-32-0076 / 20259276	2025-32-0042 / 20259242
	9:30	10:00	2025-32-0066 / 20259266	2025-32-0034 / 20259234	2025-32-0070 / 20259270	2025-32-0086 / 20259286
	10:00	10:30	Coffee break (Modulo 0 & Modulo B)			
	Session		Renewable Energy and Alternative Fuels (7 of 7)	Measurement and Simulations (3 of 3)	Materials and Manufacturing (2 of 2)	Hybrid and Electric Drives (3 of 3)
	Chair		Adrian Irimescu	Roland Kirchberger	Silvio Defanti	Lorenzo Berzi
	Co-chair		Keiya Nishida	Kensuke Suzuki	Tadao Okazaki	Stephen Teng
	10:30	11:00	2025-32-0064 / 20259264	2025-32-0015 / 20259215	25SETC-0122	2025-32-0098 / 20259298
	11:00	11:30	2025-32-0048 / 20259248	25SETC-0141	2025-32-0008 / 20259208	2025-32-0094 / 20259294
	11:30	12:00	25SETC-0156	2025-32-0010 / 20259210	2025-32-0007 / 20259207	2025-32-0097 / 20259297
	12:00	12:30	2025-32-0060 / 20259260	2025-32-0012 / 20259212		
	12:30	13:00	Awards & Closing Ceremony (Modulo 1)			
	12:59	13:30				
	13:30	14:00	Lunch break (Modulo 0 & Modulo B)			
	14:00	14:30				

TUESDAY - November 11, 2025 (10:30 - 12:30)

SESSION New Product Technology (1 of 5)

ROOM **Modulo 1**

CHAIR **Kai Beck**

CO-CHAIR **Takuya Warashina**

TITLE	PAPER N°	PRESENTER	AUTHORS
Development of 4kW Electric Outboard Motor for Small Boats	25SETC-0014	Hideki Ikeda	Hideki Ikeda, Honda Motor Co., Ltd.
Engine and Electronic Control Development For the New DR-Z4S and DR-Z4SM	25SETC-0019	Hiroshi Yamamoto	Hiroshi Yamamoto, Suzuki Motor Corporation
Hybrid Motorcycle Powertrain Concepts Paving the Way to Future Technologies	25SETC-0063	Wolfgang Schoeffmann	Wolfgang Schoeffmann, Gernot Fuckar, Christian Hubmann, Christian Martin PhD, AVL LIST GmbH
Hydrogen-Fueled Small Loop-Scavenged Two-Stroke Engines: an Integrated CFD-Experimental Methodology	25SETC-0178	Matteo Fiaschi	Stefano Caprioli, Universita di Modena e Reggio Emilia; Luca Ferretti, Convergent Science GmbH; Francesco Scignoli, Universita degli Studi di Modena; Matteo Fiaschi, Matteo D'Elia, Convergent Science GmbH; Roland Oswald, Oliver Schoegl, Graz University of Technology; Suresh Kumar Nambully, Rainer Rothbauer, Convergent Science GmbH; Enrico Mattarelli, Universita di Modena e Reggio Emilia; Roland Kirchberger, Graz University of Technology; Carlo Rinaldini, Universita di Modena e Reggio Emilia

SESSION Measurement and Simulations (1 of 3)

ROOM **Modulo 2.1**

CHAIR **Stephan Schmidt**

CO-CHAIR **Keisuke Ito**

TITLE	PAPER N°	PRESENTER	AUTHORS
Full cycle CFD modeling of a Wankel engine for UAV applications	2025-32-0013 20259213	Tommaso Lucchini	Tommaso Lucchini, Giovanni Gianetti, Federico Ramognino, Politecnico di Milano; Tarcisio Cerri, Sursum-Mi S.R.L.; Luca Marmorini, Marco Buttitta, Marmotors s.r.l.
Improving the efficiency of EVAP system development by utilizing CAE simulations and surrogate models	2025-32-0014 20259214	Keisuke Okuno	Keisuke Okuno, Atsuya Hidai, Masaki Torigoshi, Hisatoshi Kinoshita, Yamaha Motor Co., Ltd.
Cycle-to-Cycle estimation of trapped air and residual gases in lean-burn PFI hydrogen engines using a Processor-In-the-Loop approach	25SETC-0145	Luca Romani	Niccolò Grilli, Claudio Galli, Luca Romani, Giovanni Ferrara, Universita degli Studi di Firenze
Analysis of injected mass shot-to-shot dispersion and injection rate profile for a PFI injector in actual operating conditions	2025-32-0019 20259219	Lucio Postrioti	Lucio Postrioti, Cristian Maka, Manuel Martino, Universita degli Studi di Perugia

SESSION Advanced Combustion

ROOM **Modulo 2.2**

CHAIR **Christian Antetomaso**

CO-CHAIR **Teruyoshi Morita**

TITLE	PAPER N°	PRESENTER	AUTHORS
A Combustion CFD study on the Pre-chamber Jet Combustion Technology for Large Motorcycle Gasoline Engine	2025-32-0001 20259201	Hirokazu Ando	Hirokazu Ando, Takumi Tanaka, Kengo Tomizawa, Yosuke Inoue, Honda R&D Co., Ltd.
Quasi-Dimensional Simulation of a Turbulent Jet Ignition Combustion in High-Performance High-Speed Motorcycle Engine	2025-32-0002 20259202	Alberto Ballerini	Alberto Ballerini, Gianluca D'Errico, Alessandro Nodi, Politecnico di Milano; Marco Buttitta, Luca Marmorini, Marmotors S.R.L.
Ca Additive and In-cylinder Condition on Promotion of Abnormal Combustion in Supercharged SI Engine	2025-32-0004 20259204	Kaito Kitano	Kaito Kitano, Junya Tanaka, Kogakuin University

Effect of intake-air heating on combustion, performance and emissions in a light-duty engine under CNG-diesel RCCI Operation	2025-32-0003 20259203	Sarangi Asish Kumar	P. Navaneethakrishnan, Asish K Sarangi, Abhishek Suman, Seshadri Sreedhara, Indian Institute of Technology Bombay; Arvind Kumar Singh, Gas Authority of India, LTD
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SESSION	Renewable Energy and Alternative Fuels (1 of 7)	ROOM	Hall 2A
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CHAIR	Davide Di Domenico	CO-CHAIR	Yuji Araki
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TITLE	PAPER N°	PRESENTER	AUTHORS
Assessment of E-fuels applicability as gasoline replacement in a small two-stroke Engine	2025-32-0058 20259258	Santo Vitale Merolla	Sebastiano Breda, Stefano Fontanesi, Universita di Modena e Reggio Emilia; Santo Merolla, Vincenzo Gagliardi, EMAK Spa; Giuseppe Cicalese, Matteo Pati, Luca Dalseno, R & D CFD Srl; Mario Kuschel, CAC Engineering GMBH
Effect of In-cylinder Hydrogen Mixture Formation on Hydrogen Combustion	2025-32-0065 20259265	Atsushi Hisano	Atsushi Hisano, Masahito Saitou, Yota Sakurai, Kawasaki Heavy Industries, Ltd.; Satoaki Ichi, Kawasaki Motors, Ltd.
Analysis of Flame Propagation Characteristics in a Hydrogen Engine using an Optically Accessible Engine	2025-32-0061 20259261	Yuto Arai	Yuto Arai, Takamori Ueno, Ryosuke Suda, Ryoichi Sato, Nihon University; Yoshinori Nakao, Kawasaki Motors, Ltd.; Yoshinari Ninomiya, Suzuki Motor Corp.; Koichiro Matsushita, Honda Motor Co., Ltd.; Tomohiko Kamio, Yamaha Motor Co., Ltd.; Akira Iijima, Nihon University
Experimental Study on Single Cylinder Diesel Engine Port Water Injection and Blends of Biodiesel for Performance & Emission.	2025-32-0062 20259262	Vikram Bhoite	Vikram Bhoite, Kaleemuddin Syed, Sandip Chaudhari, Girish Khairnar, Pranjal Jagtap, Kameswar Reddy, Greaves Cotton, Ltd.

SESSION	Materials and Manufacturing (1 of 2) & Lubricants and Tribology	ROOM	Hall 2B
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CHAIR	Silvio Defanti	CO-CHAIR	Tadao Okazaki
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TITLE	PAPER N°	PRESENTER	AUTHORS
Development of Integrated Forming of New "NMAX" YECVT Parts Using the Plate Forging Method	2025-32-0005 20259205	Hironari Hongo	Hironari Hongo, Shogo Tamaru, Shinnosuke Uda, Yamaha Motor Engineering Co., Ltd.
Temperature effect on the static and fatigue performance of thermoset and thermoplastic composites	2025-32-0006 20259206	Andrea Chiocca	Andrea Chiocca, Michele Sgamma, Francesco Bucchi, Francesco Frendo, University of Pisa; Alessandro Franceschini, Alessio Vestri, Simone Mancini, Raffaele Squarcini, Pierburg Pump Technology Italy SpA
Evaluation of the long term creep behavior of polymeric materials using the Time-Temperature Superposition principle by Dynamic Mechanical Analysis	25SETC-0123	Alexej Gamanets	Alexej Gamanets, Pontlab Srl
Experimental analysis of wheel bearing friction losses under realistic driving cycleson a component and roller test bench	2025-32-0100 20259300	Lukas Hartmann	Lukas Hartmann, Lars Erleben, Ron Rebesberger, Roman Henze, Axel Sturm, Institute of Automotive Engineering

TUESDAY - November 11, 2025 (13:30 - 15:30)

SESSION	New Product Technology (2 of 5)	ROOM	Modulo 1
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CHAIR	Rita Di Gioia	CO-CHAIR	Takuya Warashina
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TITLE	PAPER N°	PRESENTER	AUTHORS
Lower Environmental Impact Resin Material Applications for Motorcycles	25SETC-0045	Satoru Kamijo	Satoru Kamijo, Honda Motor Co., Ltd.
Analysis of H2-DI application to an high-performance motorcycle engine	25SETC-0171	Alberto Lorenzo Vassallo	Alberto Lorenzo Vassallo, Francesco Pesce, Dumarey Automotive Italia; Luigi Teodosio, Emanuele Ugliano, Fabio Bozza, Universita di Napoli Federico II

Development of new power unit for a SxS vehicle	25SETC-0050	Jumpei Tokuda	Jumpei Tokuda, Kawasaki Motors, Ltd.
AI-Driven Cybersecurity in Transportation: Strengthening Resilience in the Mobility Ecosystem	25SETC-0061	Jessica Dapelo	Jessica Dapelo, Jessica Dapelo Enterprises INC

SESSION	Engine Technology	ROOM	Modulo 2.1
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CHAIR	Luca Romani	CO-CHAIR	Masahito Saito
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TITLE	PAPER N°	PRESENTER	AUTHORS
Methodology of Minimum Energy Starting for SI Engine	2025-32-0090 20259290	Yusuke Matsuura	Yusuke Matsuura, Junya Tanaka, Kogakuin University
Clean cuts, clear conscience: Advanced engines, optimized tools, eco-friendly fuels	2025-32-0087 20259287	Kai W. Beck	Kai W. Beck, Georg Maier, Matthias Müller, Thomas Lux, Armin Kölmel, Holger Lochmann, Jens Melder, ANDREAS STIHL AG & Co. KG
Investigating the Influence of Intake Runner Configuration on Scavenging and Combustion Processes in Elliptical Rotor Engines	2025-32-0089 20259289	Jing Qin	Jing Qin, Yingbo Wang, Yiqiang Pei, Dasuo Yao, Tianjin University; Xiwen Deng, Kunming University of Science and Technology
Revolutionizing Two-Wheeler Gear Shifting: A Cost-Effective Approach for Clutch-Less Gear Shift	2025-32-0088 20259288	Dinkar Jois	Dinkar Jois, Bosch, Ltd.

SESSION	Two Stroke Engines (1 of 2)	ROOM	Modulo 2.2
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CHAIR	Carlo Alberto Rinaldini	CO-CHAIR	Tatsuya Kuboyama
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TITLE	PAPER N°	PRESENTER	AUTHORS
Effect of Plasma-Assisted Ignition on Combustion and Emission Characteristics of Two Stroke Engines with Different Fuels	2025-32-0030 20259230	Jinru Liu	Jinru Liu, Yoshiaki Yamazaki, Yusuke Otaki, Hayato Kato, Daichi Kobayashi, Tetsuo Umegaki, Tomohiko Asai, Akira Iijima, Nihon University
Optimum Bore-to-Stroke Ratio for a Flathead Uniflow Two-Stroke SI Engine and its Impact on Different Fuels	2025-32-0024 20259224	Mario Martins	Guilherme Zanchin, Roberto Hausen, Jean Lucca Fagundez, Thompson LanzaNova, Mario Martins, Federal University of Santa Maria
Performance Prediction of a Two-Stroke Aviation S.I. Engine by Means 0D/1D Thermo-Fluid Dynamic Simulation Code	2025-32-0026 20259226	Tarcisio Cerri	Tarcisio Cerri, Sursum-Mi s.r.l.; Alessandro Giussani, Suter Industries AG; Tommaso Lucchini, Andrea Marinoni, Gianluca Montenegro, Angelo Onorati, Politecnico di Milano
Study of Combustion Characteristics of a Two-stroke Opposed Piston Engine using Low-octane Fuels	2025-32-0028 20259228	Yoshiaki Yamazaki	Yoshiaki Yamazaki, Ikumi Okawara, Jinru Liu, Akira Iijima, Nihon University

SESSION	Renewable Energy and Alternative Fuels (2 of 7)	ROOM	Hall 2A
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CHAIR	Chiara Guido	CO-CHAIR	Yuji Mihara
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TITLE	PAPER N°	PRESENTER	AUTHORS
The Effect of Compression Ratio in Ammonia Single Fuel Engine	25SETC-0075	Tadashi Takeuchi	Tadashi Takeuchi, Toyota Industries Corporation; Yoshitane Takashima, Osaka Gas Co Ltd
Development of a Combined Injection and Ignition Unit for a Gas Engine with Direct Hydrogen Injection Integrated into the Standard Spark Plug Access Hole	2025-32-0059 20259259	Nic Rischette	Nic Rischette, Sascha Holzberger, Sven Helms, Maurice Kettner, University Of Applied Sciences Karlsruhe

Numerical analysis of combustion stability and efficiency improvement in ammonia engines utilizing Passive Turbulent Jet Ignition (PTJI)	2025-32-0049 20259249	Kangmin Ju	Kangmin Ju, Hyun-Ung Kang, Jeong Hyeon Kim, Chosun University
Experimental Study of HCNG on Single Cylinder 395cc Spark Ignition Engine for Performance and Exhaust Emission.	2025-32-0050 20259250	Kaleemuddin Syed	Kaleemuddin Syed, Sandip Chaudhari, Girish Khairnar, Suresh Sajjan Ing, Greaves Cotton, Ltd.

SESSION	Hybrid and Electric Drives (1 of 3) & Collegiate Event	ROOM	Hall 2B
CHAIR	Adrian Irimescu	CO-CHAIR	Stephen Teng

TITLE	PAPER N°	PRESENTER	AUTHORS
Vehicle to Vehicle Recharge and Power Sharing for Modular Public Transportation Systems: Design and Testing of the UNIFI fleet at ENEA CASACCIA Research Center	2025-32-0095 20259295	Lorenzo Berzi	Adriano Alessandrini, Lorenzo Berzi, Marco Fabbri, Michael Franci, Michelangelo Santo Gulino, Luca Pugi, Università degli Studi di Firenze; Fernando Ortenzi, Francesco Vitiello, ENEA Centro Ricerche Casaccia
3D Electromagnetic simulation methodology for detailed characterization of small electric motor for motorcycle application	25SETC-0126	Lorenzo Fazzini	Lorenzo Fazzini, HPE
Design optimization and calibration of a single-cylinder, motorcycle engine for integration into a novel Formula SAE electric hybrid powertrain	2025-32-0045 20259245	Pietro Fabbri	Alessandro Brusa, Pietro Fabbri, Fenil Shethia, Davide Bassani, Boris Petrone, Nicolo Cavina, University of Bologna

TUESDAY - November 11, 2025 (15:30 - 16:00)

SESSION	Poster Session (1 of 2)	ROOM	Modulo 0
CHAIRS	Francesco Balduzzi & Luca Romani	CO-CHAIR	Akira Iijima

TITLE	PAPER N°	PRESENTER	AUTHORS
Numerical study on effect of LP-EGR on ignition characteristic under hydrogen fueled small engine for range extender	25SETC-0071	Hyun-Ung Kang	Hyun-Ung Kang, Kangmin Ju, Jeong Hyeon Kim, Chosun University
Design and technical evaluation of a small compact planetary gear: Research on a practical case study	25SETC-0076	Giovanni Cecere	Giovanni Cecere, Adrian Irimescu, CNR-STEMS
Design and manufacturing of a high-pressure optical chamber for ignition system characterization	25SETC-0174	Giovanni Cecere	Giovanni Cecere, Adrian Irimescu, CNR-STEMS; Walter di Loreto, Mario Lorenzi, TAUMAT S.r.l.
Influence of Different Materials on the Surface Ignition Temperature of Hydrogen-Air Mixtures in a Constant-Volume Combustion Chamber	25SETC-0177	Albert Guggenheimer	Albert Guggenheimer, University of Applied Sciences Karlsruhe

TUESDAY - November 11, 2025 (16:30 - 18:00)

SESSION	Emissions and Environmental Impacts (1 of 3)	ROOM	Modulo 1
CHAIR	Davide Di Domenico	CO-CHAIR	Michihisa Nakagawa

TITLE	PAPER N°	PRESENTER	AUTHORS
Integration of a Compact 4-Stroke Engine into a Model Vehicle with Dynamic Emission Analysis on a Small Chassis Dynamometer	2025-32-0074 20259274	Marcus Gohl	Marcus Gohl, APL Automobil-Pruftechnik Landau GmbH; Yasuo Moriyoshi, Tatsuya Kuboyama, Hitomu Arakawa, Chiba University
A Simulation Approach for the Impact Assessment of an Axial Flux Traction Motor Applied on Road Electric Vehicle	2025-32-0077 20259277	Maurizio Guadagno	Maurizio Guadagno, Lorenzo Berzi, Luca Pugi, Massimo Delogu, Università degli Studi di Firenze

Investigation of degradation of catalyst performance due to phosphorus poisoning in practical catalysts	2025-32-0073 20259273	Takeru Ibara	Takeru Ibara, Shiori Itou, Kazuma Yusa, Hisatoshi Kinoshita, Takuya Motegi, Yamaha Motor Co., Ltd.
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SESSION	NVH Technology	ROOM	Modulo 2.1
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CHAIR	Simona Merola	CO-CHAIR	Keisuke Namekawa
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TITLE	PAPER N°	PRESENTER	AUTHORS
Order Dispersion Method by Crankpin Arrangement into Enhancements of Structural Reliability and Sound Quality for V8 Outboard Motor	2025-32-0021 20259221	Kentaro Takanishi	Kentaro Takanishi, Hideta Muramatsu, Takashi Kondo, Gaku Naoe, Honda Motor Co Ltd
Analysis of Handlebar Vibration Mechanisms and Perceptual Characteristics During Push-Walking of Electric Motorcycle	2025-32-0020 20259220	Tsubasa Okamura	Tsubasa Okamura, Ryota Otaki, Atsushi Sugaya, Tsukasa Shimizu, Yamaha Motor Co., Ltd.
Study on the Clarification of the Mechanism of Scooter Centrifugal Clutch Squeal	2025-32-0022 20259222	Kohei Yamamoto	Kohei Yamamoto, Tatsuya Iwamoto, Takashi Otsuka, Honda Motor Co., Ltd.

SESSION	Small Energy Systems	ROOM	Modulo 2.2
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CHAIR	Maurice Kettner	CO-CHAIR	Tadao Okazaki
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TITLE	PAPER N°	PRESENTER	AUTHORS
The effect of differential humidification and membrane thickness on PEMFC operation	2025-32-0039 20259239	Carmine Marra	Leonardo Scialpi, Alessandro D'Adamo, Carmine Marra, Università di Modena e Reggio Emilia
Experimental Investigation and 1D Modeling of a Small-Scale PEM Fuel Cell Power System.	2025-32-0040 20259240	Christian Antetomaso	Christian Antetomaso, Dario Di Maio, Giovanni Cecere, CNR-STEMS
Development of a Fuel Cell System for Small Mobility Applications with Severe Load Fluctuations	2025-32-0038 20259238	Masaya Suzuki	Masaya Suzuki, Nobuhiro Nakata, Yamaha Motor Co., Ltd.

SESSION	Renewable Energy and Alternative Fuels (3 of 7)	ROOM	Hall 2A
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CHAIR	Tommaso Lucchini	CO-CHAIR	Yuji Mihara
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TITLE	PAPER N°	PRESENTER	AUTHORS
Study on Combustion Detection of a Spark-Ignition Engine with Fuel Variation Using Various Sensors	2025-32-0052 20259252	Kohei Hayashi	Kohei Hayashi, Jihoon Kim, Yudai Yamasaki, The University of Tokyo
Analysis of Combustion Process in HVO-Hydrogen Dual-Fuel Operation Using Simultaneous Imaging of OH* and CH* Chemiluminescence	2025-32-0053 20259253	Takumi Yukitani	Takumi Yukitani, Naoto Une, Ghazian Mukhtar, Naoto Horibe, Hiroshi Kawanabe, Kyoto University; Kazuyuki Koda, Kenji Hiraoka, Yanmar Holdings Co., Ltd.
Experimental and Numerical Study on Diesel Engine Retrofitting for Hydrogen Operation with Direct Injection	25SETC-0185	Fabio Mallamo	Fabio Mallamo, Rosario Loidice, FEV Italia; Massimiliano Bonanni, Wladimir Lodi, Rehlko Engines; Andrea Scalambro, Adrea Piano, Politecnico di Torino

SESSION	Diesel Engine	ROOM	Hall 2B
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CHAIR	Luigi Arnone	CO-CHAIR	Yusuke Suzuki
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TITLE	PAPER N°	PRESENTER	AUTHORS
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Impact of Water Injection on Emission Formation in an HVO-fuelled NRMM Engine	2025-32-0067 20259267	Jonas Fuhrmeister	Jonas Fuhrmeister, Sebastian Mayer, Michael Günthner, University of Kaiserslautern-Landau
Impacts of Lightening and Isomerization of Liquid Synthetic Fuels on Combustion Characteristics of Diesel Engine	25SETC-0056	Gen Shibata	Gen Shibata, Hiroya Yamamoto, Shusuke Tanaka, Hideyuki Ogawa, Haoyu Yuan, Hokkaido University
Development of 2-cylinder Diesel Engine for European quadricycles to achieve EURO 5+ standard	2025-32-0068 20259268	Masanari Tennomi	Naotaro Nagai, Masanari Tennomi, Akira Tamura, Hiroaki Mochizuki, Yasushi Kobayashi, Takashi Onishi, Kubota Corp.

WEDNESDAY - November 12, 2025 (10:30 - 12:30)

SESSION	New Product Technology (3 of 5)	ROOM	Modulo 1
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CHAIR Kai Beck CO-CHAIR Keisuke Namekawa

TITLE	PAPER N°	PRESENTER	AUTHORS
Development of "YECVT" for the New-"NMAX"	25SETC-0034	Yuki Katsuyama	Yuki Katsuyama, Kimihiko Sato, Yamaha Motor Co., Ltd.
Low Speed Riding Regularity Analysis of Motorcycles Equipped with V4 IC Engine: Effects of Uneven Firing Intervals and Cylinder Deactivation	25SETC-0168	Leonardo Bagnoli	Leonardo Bagnoli, Ducati Motor Holding S.p.A.
Development of a Hydrogen-Fueled Two-Stroke Engine with Overhead Valves	25SETC-0170	Alberto Lorenzo Vassallo	Alberto Lorenzo Vassallo, Francesco Pesce, Dumarey Automotive Italia; Stefano Caprioli, Francesco Scignoli, Enrico Mattarelli, Carlo Rinaldini, Universita di Modena e Reggio Emilia
Optimizing Power and Drivability in a 125cc New Stylish Motorcycle Development for Young Indian Riders: A Simulation-Based Approach	25SETC-0053	Manish Bansal	Manish Bansal, Rajat Siroiya, Honda R&D India Pvt Ltd.

SESSION	Engine Components	ROOM	Modulo 2.1
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CHAIR Adrian Irimescu CO-CHAIR Michihisa Nakagawa

TITLE	PAPER N°	PRESENTER	AUTHORS
Fatigue in Plastic Field of AISI 304L on an Engine Component: An Interesting Case on a Pulley for Automotive Application	2025-32-0080 20259280	Alessandro Franceschini	Alessandro Franceschini, Raffaele Squarcini, Pierburg Pump Technology Italy S.p.A.; Gilles Rybicki, Pierburg Pump Technology France S.à.r.l
Knock Sensors for Two Wheelers Applications	2025-32-0079 20259279	Jeroen Van Est	Jeroen van Est, Corentin Prieu, VITESCO Technologies France SAS
Advanced Multi-Fidelity Simulation of Piston Oil Jet Cooling in High-Performance Engines	2025-32-0081 20259281	Francesco Balduzzi	Andrea Sassoli, Luca Romani, Giovanni Ferrara, Università degli Studi di Firenze; Giovanni Paolicelli, Asso Werke S.p.A.; Francesco Balduzzi, Università degli Studi di Firenze
Model based design and numerical analysis of a downsized centrifugal pump for engine cooling applications	2025-32-0078 20259278	Ali Deriszadeh	Davide Di Battista, Ali Deriszadeh, Federico Di Prospero, Giammarco Di Giovine, Marco Di Bartolomeo, Fabio Fatigati, Roberto Cipollone, University of L'Aquila

SESSION	Vehicle Dynamics and Safety (1 of 2)	ROOM	Modulo 2.2
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CHAIR Alexander Winkler CO-CHAIR Shingo Ueda

TITLE	PAPER N°	PRESENTER	AUTHORS
Obstacle Avoidance Capability of a Personal Mobility Vehicle (PMV) with an Inward Tilting Mechanism under Braking Conditions	2025-32-0033 20259233	Tetsunori Haraguchi	Tetsunori Haraguchi, Nagoya University; Tetsuya Kaneko, Osaka Sangyo University

Influence of road friction characteristics on the motorcycle dynamics	2025-32-0036 20259236	Ichiro Kageyama	Ichiro Kageyama, Nihon University
Development of the Anti-SideSlip Control for Motorcycles Using IMU	2025-32-0037 20259237	Kyosuke Nakano	Kyosuke Nakano, Kazunori Kawai, Michinori Takeuchi, Suzuki Motor Corp

SESSION	Measurement and Simulations (2 of 3)	ROOM	Hall 2A
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CHAIR	Stephan Schmidt	CO-CHAIR	Keisuke Ito
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TITLE	PAPER N°	PRESENTER	AUTHORS
Measurement of the liquid fuel film on the combustion chamber wall of a gasoline engine using a novel capacitance sensor	2025-32-0018 20259218	Tatsuya Kuboyama	Tatsuya Kuboyama, Takeru Nakajima, Yasuo Moriyoshi, Chiba University; Satoshi Takayama, Suzuki Motor Corp; Osamu Nakabeppu, Meiji University
Overcoming Challenges in Motorcycle Exhaust Flow Measurement: A Study on Measurement Accuracy and Systematic Effects of an Annubar-Based Approach	2025-32-0016 20259216	Sebastian Schurl	Sebastian Schurl, Graz University of Technology; Christian Hafenmayer, Mathias Lankau, AIP GmbH & Co. KG; Günter Brenn, Stephan Schmidt, Roland Kirchberger, Graz University of Technology
Ultralightweight Emission Measurement Systems for Motorcycles: Accuracy and Practicality in RDE Testing	2025-32-0011 20259211	Sebastian Schurl	Sebastian Schurl, Graz University of Technology; Peter Lienerth, Leonid Japs, Matthias Schroeder, HORIBA Europe GmbH; Stephan Schmidt, Roland Kirchberger, Graz University of Technology
Predicting Transient Soot Emissions in Diesel Engines Using Physical and Machine Learning Models	2025-32-0017 20259217	Takahiro Kitamura	Takahiro Kitamura, Ayano Matsuoka, Kosuke Suematsu, Hiroaki Okano, Kubota Corp.

WEDNESDAY - November 12, 2025 (13:30 - 15:30)

SESSION	New Product Technology (4 of 5)	ROOM	Modulo 1
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CHAIR	Giovanni Paolicelli	CO-CHAIR	Satoshi Takayama
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TITLE	PAPER N°	PRESENTER	AUTHORS
Crank-Angle-Resolved piston crown temperature measurement in a hydrogen engine	25SETC-0173	Claretta Tempesti	Marco Tarchiani, Claretta Tempesti, Francesco Padovani, Luca Romani, Università degli Studi di Firenze; Giovanni Paolicelli, Asso Werke S P A; Giovanni Ferrara, Università degli Studi di Firenze
The Development of the EV scooter “e-ACCESS”	25SETC-0175	Sadayuki Tsujimura	Daisuke Shimasaki, Sadayuki Tsujimura, Suzuki Motor Corporation
Infotainment system for motorcycles	25SETC-0029	Ryohei Koyama	Ryohei Koyama, Honda Motor Co., Ltd.
Introducing the 3DATX FLEX and FLEX-PNC iPEMS for small engine pollutant and carbon emissions measurement	25SETC-0180	Daisy Thomas	Daisy Thomas, Matthew Berry, 3DATX Corporation

SESSION	Powertrain Controls (1 of 2)	ROOM	Modulo 2.1
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CHAIR	Maurice Kettner	CO-CHAIR	Shigeho Sakoda
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TITLE	PAPER N°	PRESENTER	AUTHORS
Firing TDC identification through wasted spark duration measurements during cranking of small engines	2025-32-0085 20259285	Adrian Irimescu	Adrian Irimescu, Simona Merola, CNR-STEMS
Torque Transfer Response Enhancement on the DCT with Estimated Hydraulic Pressure in the Clutch Piston Chamber	2025-32-0083 20259283	Kosaku Takahashi	Kosaku Takahashi, Honda Motor Co., Ltd.

Development of Automatic Calibration System for PFI Engines	2025-32-0084 20259284	Kazuki Haraguchi	Kazuki Haraguchi, Suzuki Motor Corp.
Development of an Artificial Calibrator for ShiftProgram Optimization to Enhance Fuel Efficiency	2025-32-0082 20259282	Thierry Junior Kengne Dzegou	Thierry Junior Kengne Dzegou, Florian Schober, Volkswagen AG; Ron Rebesberger, Roman Henze, IFF, TU Branschweig

SESSION

Two Stroke Engines (2 of 2)

ROOM

Modulo 2.2

CHAIR

Enrico Mattarelli

CO-CHAIR

Akira Iijima

TITLE	PAPER N°	PRESENTER	AUTHORS
Development of Supercharged Direct-injection Two Stroke Engine with Intake and Exhaust Valve for Series Hybrid (2nd Report) - To Realize Lean Burn -	2025-32-0023 20259223	Yota Sakurai	Yota Sakurai, Atsushi Hisano, Masahito Saitou, Kawasaki Heavy Industries, Ltd.; Satoaki Ichi, Kawasaki Motors, Ltd.
Preliminary Development of a Novel 2-Stroke Petrol Engine for a Hybrid Sport-Tourer Motorcycle	2025-32-0025 20259225	Carlo Alberto Rinaldini	Carlo Alberto Rinaldini, Francesco Scrignoli, Antonello Volza, Enrico Mattarelli, Universita di Modena e Reggio Emilia; Luca Montanari, Gianluca Magnani, HyperTec Solution srl
Application of MAN Loop Scavenging in a 125 cm³ Two-Stroke Racing Engine	2025-32-0029 20259229	Peter Eilts	Peter Eilts, Technische Universität Braunschweig
Computational investigation on a boosted uniflow scavenged direct-injection combustion engine (BUSDICE) with alcohol fuel	2025-32-0027 20259227	Yizhuo Feng	Yizhuo Feng, Enshen Lu, Shuo Dong, Hossein Keshtkar, Xinyan Wang, Hua Zhao, Brunel University of London

SESSION

Renewable Energy and Alternative Fuels (4 of 7)

ROOM

Hall 2A

CHAIR

Giovanni Vichi

CO-CHAIR

Kensuke Suzuki

TITLE	PAPER N°	PRESENTER	AUTHORS
Validation of an integrated ignition-combustion model for premixed hydrogen-air flames under lean conditions	2025-32-0056 20259256	Marco Pretto	Marco Pretto, Pietro Giannattasio, University of Udine; Fabio Bozza, Vincenzo De Bellis, Emanuele Ugliano, University of Naples "Federico II"
Transient Helium Jet Evolution Using High Speed Schlieren Imaging	2025-32-0057 20259257	Shuo Dong	Shuo Dong, Hao Shi, Brunel University of London; Gengxin Zhang, University of Sheffield; Yizhuo Feng, Enshen Lu, Xinyan Wang, Hua Zhao, Brunel University of London
Performance Analysis of a Hydrogen-blended Naturally Aspirated Gas Engine with a Dedicated Exhaust Gas Recirculation System	2025-32-0046 20259246	Naqib Salim	Naqib Salim, Youssef Beltaifa, Maurice Kettner, Karlsruhe University of Applied Sciences
Visualization Study on the Combustion Characteristics of Diesel-Ignited Ammonia/Methane Mixtures	2025-32-0054 20259254	Shuo Yin	Shuo Yin, Zhizhuo Dai, Qingxing Zhou, Zechuan Cui, Xiaolei Zhang, Mingyuan Ye, Yifang Ren, Zhanpeng Wang, Keiya Nishida, Dalian University of Technology

WEDNESDAY - November 12, 2025 (15:30 - 16:00)

SESSION

Poster Session (2 of 2)

ROOM

Modulo 0

CHAIRS

Francesco Balduzzi & Luca Romani

CO-CHAIR

Akira Iijima

TITLE	PAPER N°	PRESENTER	AUTHORS
Numerical Study on the Optimal Design of a Constant-Volume Combustion Chamber (CVVC) for Passive Turbulent Jet Ignition (PTJI) in an Ammonia-Fueled Engine	25SETC-0073	Jeong Hyeon Kim	Jeong Hyeon Kim, Kangmin Ju, Hyunung Kang, Chosun University
Dynamic Contact Angle Modeling for Water Removal in PEM Fuel Cell Channels	25SETC-0169	Christian Antetomaso	Christian Antetomaso, CNR-STEMS

Effect of Hydrogen Injection Pressure on Engine Performance and Hydrogen Concentration in Blow-by Gas in Direct Injection Hydrogen Engines	25SETC-0176	Seiya Yamada	Seiya Yamada, Tokyo City University
Numerical investigations on the influence of the hot surface-assisted spark ignition (HSASI) on the flame regime within the pre-chamber using 3D-CFD simulations	25SETC-0181	Sascha Holzberger	Sascha Holzberger, University of Applied Sciences Karlsruhe

WEDNESDAY - November 12, 2025 (16:30 - 18:00)

SESSION	New Product Technology (5 of 5)	ROOM	Modulo 1
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CHAIR	Rita Di Gioia	CO-CHAIR	Teruyoshi Morita
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TITLE	PAPER N°	PRESENTER	AUTHORS
Enhancing Spark Ignition Engine Efficiency with Passive Pre-Chamber Technology	25SETC-0182	Metin Korkmaz	Metin Korkmaz, Tobias Czerny, Björn Schürmann, Sandro Pino, Tenneco Inc.
H2 ICE Combustion Analysis Development with Smart Ignition Coil Diagnostic	25SETC-0183	Stefano Papi	Stefano Papi, Federico Ricci, Massimo dal Re, Massimiliano Avana, Tenneco Inc.
Plugin Solution for Motorcycle Emission Testing: Preparing for Particle Number Regulation	25SETC-0184	Sebastian Schurl	Christian Hafenmayer, Sebastian Schurl, Mathias Lankau, Franz Hiepp, AIP Automotive GmbH & Co. KG

SESSION	Hybrid and Electric Drives (2 of 3)	ROOM	Modulo 2.1
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CHAIR	Lorenzo Berzi	CO-CHAIR	Masaki Segawa
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TITLE	PAPER N°	PRESENTER	AUTHORS
Traction voltage level in two-wheeler: considerations on e-motor performance	2025-32-0093 20259293	Laurent Albert	Laurent Albert, Schaeffler Vitesco Technologies
Design and development of a novel automatic powershift transmission for battery-electric vehicles	2025-32-0096 20259296	Juergen Tromayer	Juergen Tromayer, David Stückler, Roland Kirchberger, Graz University of Technology
Development of Electronic Control in Strong Hybrid Motorcycle	2025-32-0091 20259291	Kosuke Obayashi	Kosuke Obayashi, Shohei Terai, Kawasaki Heavy Industries, Ltd.; Kenichi Jino, Kawasaki Motors, Ltd.; Daisuke Kawai, Kawasaki Heavy Industries, Ltd.

SESSION	Emissions and Environmental Impacts (2 of 3)	ROOM	Modulo 2.2
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CHAIR	Massimo Delogu	CO-CHAIR	Hiromi Deguchi
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TITLE	PAPER N°	PRESENTER	AUTHORS
Real Driving Emission (RDE) Assessment for Motorcycles Using a Random Cycle Generator (RCG)	2025-32-0071 20259271	Masahiro Matsuoka	Masahiro Matsuoka, Hiroshi Hirai, Takayuki Ito, Japan Automobile Research Institute
RDE testing of small Motorcycle in Indian Road Conditions and study the impact of instrumentation on emission and fuel economy	2025-32-0075 20259275	Rahul Agrawal	Rahul Agrawal, Rahul Jaswal, Sachin Yadav, AVL India Technical Centre Pvt., Ltd.

SESSION	Renewable Energy and Alternative Fuels (5 of 7)	ROOM	Hall 2A
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CHAIR	Stanislaw Szwaja	CO-CHAIR	Naoto Horibe
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TITLE	PAPER N°	PRESENTER	AUTHORS
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Cold-Start Demonstration of an Ammonia Mono-Fueled Engine System Using Onboard Reformer with a Start up Burner	25SETC-0115	Norinosuke Nakatani	Norinosuke Nakatani, Tadashi Takeuchi, Toyota Industries Corporation; Hiroshi Miyagawa, Tetsunori Suzuoki, Toyota Central R&D Labs Inc
Experimental Study on Hydrogen-Methane Co-Combustion in Small Gas Engines	2025-32-0055 20259255	Kenta Tanaka	Kenta Tanaka, Toshihiro Tani, Toyota Industries Corporation; Takahiro Sako, Osaka Gas Co., Ltd
Effect of hydrogen injection timing in a compression ignition engine operating in hydrogen diesel dual fuel mode	2025-32-0051 20259251	Salvatore Rossetti	Salvatore Rossetti, Ezio Mancarusio, CNR-STEMS

THURSDAY - November 13, 2025 (8:30 - 10:00)

SESSION	Renewable Energy and Alternative Fuels (6 of 7)	ROOM	Modulo 1
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CHAIR Giovanni Cecere CO-CHAIR Yuji Araki

TITLE	PAPER N°	PRESENTER	AUTHORS
Impacts of enhanced physics-based estimation modeling for trapped air and EGR estimation in real-time control of hydrogen injection in a PFI internal combustion engine	2025-32-0047 20259247	Claudio Galli	Claudio Galli, Giovanni Ferrara, Niccolò Grilli, Francesco Balduzzi, Luca Romani, Università degli Studi di Firenze; Giovanni Vichi, Yanmar R&D Europe
A Study of Knocking Characteristics in a Hydrogen SI Engine under High Compression Ratio	2025-32-0063 20259263	Hiromasa Ishihara	Hiromasa Ishihara, Shunsuke Kishibata, Shota Miyake, Tomoya Iida, Kenta Kuwabara, Nihon University; Shintaro Yoshihara, Sekai Miyamoto, Kawasaki Heavy Industries, Ltd.; Akira Iijima, Nihon University
Development of the Hydrogen Fueled Internal Combustion Engine for Off-road Applications	2025-32-0066 20259266	Kentaro Shiraishi	Kentaro Shiraishi, Shinji Kishi, Daichi Kato, Kenta Mitamura, Kei Murakami, Yusuke Mikuni, Kubota Corp.

SESSION	Vehicle Dynamics and Safety (2 of 2)	ROOM	Modulo 2.1
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CHAIR Alexander Winkler CO-CHAIR Shingo Ueda

TITLE	PAPER N°	PRESENTER	AUTHORS
Investigation of Driving Characteristics for Road Alignments with High Traffic Accident Rates on Hilly and Mountainous Roads Using a Motorcycle Simulator	2025-32-0035 20259235	Hiroshi Kuniyuki	Hiroshi Kuniyuki, Yuta Katayama, Taisei Kitagawa, Yusuke Numao, Suwa University of Science
Road Simulation Techniques for Reproducing Off-Road Vehicle Behavior	2025-32-0031 20259231	Takahiro Miyasaka	Takahiro Miyasaka, Ryota Shimizu, Kubota Corp.
A Study of the Relationship between the "Leaning" Characteristics of Motorcycles and Vehicle Specifications, Report 1.	2025-32-0034 20259234	Hideki Sakai	Hideki Sakai, Kindai University; Yoshihiro Nakagawa, Yoshitaka Tezuka, Hiroki Yamashita, Shunichi Miyagishi, Honda Motor Co., Ltd

SESSION	Emissions and Environmental Impacts (3 of 3)	ROOM	Modulo 2.2
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CHAIR Luigi Arnone CO-CHAIR Yusuke Suzuki

TITLE	PAPER N°	PRESENTER	AUTHORS
Emission Performance of Motorcycles: Regulated and Non-Regulated Pollutants under Harmonized and Extended Testing Conditions	2025-32-0069 20259269	Stephan Schmidt	Sebastian Schurl, Stephan Schmidt, Niko Bretterklier, Martin Kupper, Roland Kirchberger, Graz University of Technology
Study on CO2 Absorption via Atomization Utilizing Surface Texturing and Surface Energy for Small Engine Applications	2025-32-0076 20259276	Tetsuo Nohara	Tetsuo Nohara, Shotaro Nara, Yuki Kawamoto, Naoya Fukushima, Masayuki Ochiai, Tokai University
Forward-Looking SiL-Based Fuel Consumption Simulation for Dual-Clutch Transmission Software Evaluation	2025-32-0070 20259270	Thierry Junior Kengne Dzegou	Thierry Junior Kengne Dzegou, Florian Schober, Volkswagen AG; Ron Rebesberger, Roman Henze, IFF, TU Braunschweig

SESSION	Data-driven Digitalization & Powertrain Controls (2 of 2)		ROOM	Hall 2A
CHAIR	Lerina Aversano		CO-CHAIR	Shigeho Sakoda
TITLE	PAPER N°	PRESENTER	AUTHORS	
Diesel Combustion Parameter Estimation via MachineLearning – A Comparative Study	2025-32-0041 20259241	Andreas Benjamin Ofner	Andreas Benjamin Ofner, Know Center Research GmbH; Bernhard Geiger, Graz University of Technology; Jonas Sjoblom, Morteza Haghir Chehreghani, Chalmers University of Technology	
An SVM-based approach to develop a new control module for H2-powered engine using driver behaviour classification	2025-32-0042 20259242	Marco De Santis	Michele Mastroianni, University of Foggia; Simona Merola, Adrian Irimescu, CNR-STEMS; Marco De Santis, Christian Esposito, University ff Salerno; Lerina Aversano, University of Foggia	
On Board Monitoring of Water Injection Inducement System and Particulate Filter for 3-Wheeler BS VI OBD II B Diesel Vehicle Norms.	2025-32-0086 20259286	Pranjal Jagtap	Pranjal Jagtap, Kaleemuddin Syed, Sandip Chaudhari, Girish Khairnar, Vikram Bhoite, Kameswar Reddy, Greaves Cotton, Ltd.	

THURSDAY - November 13, 2025 (10:30 - 12:30)

SESSION	Renewable Energy and Alternative Fuels (7 of 7)		ROOM	Modulo 1
CHAIR	Adrian Irimescu		CO-CHAIR	Keiya Nishida
TITLE	PAPER N°	PRESENTER	AUTHORS	
Clarification of the Mechanism of Abnormal Combustion in Hydrogen Engines -Investigation of Abnormal Combustion Location by Visualization Measurement-	2025-32-0064 20259264	Keiji Muramatsu	Keiji Muramatsu, Satoshi Tokuhara, Pravin Kadu, Kei Yoshimura, Kenjiro Nakama, Suzuki Motor Corp.	
Hydrogen-Assisted Renewable Fuels RME and HVO in the Compression-Ignition Engine	2025-32-0048 20259248	Stanislaw Szwaja	Stanislaw Szwaja, Czestochowa University of Technology; Romualdas Juknelevicius, Saugirdas Pukalskas, Alfredas Rimkus, Vilnius Gediminas Technical University; Arkadiusz Szymanek, Czestochowa University of Technology	
In-depth experimental investigation of the operating range of a hydrogen-fueled 4-stroke PFI engine to support the development of a 1D predictive combustion model	25SETC-0156	Gerardo Stanzione	Gerardo Stanzione, Federico Millo, Andrea Piano, Politecnico di Torino; Giovanni Vichi, Niccolo Fiorini, Yanmar R&D Europe; Luca Romani, Giovanni Ferrara, Universita degli Studi di Firenze	
Experimental and kinetic study of methane blending on the laminar combustion and emission characteristics of ammonia under various oxygen contents at high temperature and pressure	2025-32-0060 20259260	Yuantao Yu	Yuantao YU, Zhizhuo Dai, Chunlei Hou, Mingyuan Ye, Xiaolei Zhang, Zechuan Cui, Shuo Yin, Keiya Nishida, Dalian University of Technology	

SESSION	Measurement and Simulations (3 of 3)		ROOM	Modulo 2.1
CHAIR	Roland Kirchberger		CO-CHAIR	Kensuke Suzuki
TITLE	PAPER N°	PRESENTER	AUTHORS	
Development of CAE Technology for the Design Support of Piston Pin Circlip	2025-32-0015 20259215	Atsushi Ishizuka	Atsushi Ishizuka, Naoto Watanabe, Suzuki Motor Corporation	
Design of an innovative geared automatic constantly variable e-bike transmission by means of Longitudinal Dynamics Simulation	25SETC-0141	Hans-Juergen Schacht	Hans-Juergen Schacht, Juergen Tromayer, Graz University of Technology	
Advanced 3D Simulations of a Four-Stroke High-Performance Engine Valvetrain for the Analysis of the Mechanical Stresses and Energy Losses	2025-32-0010 20259210	Marco Tarchiani	Marco Tarchiani, Alessio Pizzicori, Sandro Raspanti, Luca Romani, Enrico Meli, Giovanni Ferrara, Università degli Studi di Firenze; Paolo Trassi, Betamotor SpA	
Safety Critical Series Arc Detection and Measurement in Medium and High Voltage DC Grids	2025-32-0012 20259212	Alexander Winkler	Alexander Winkler, Stefan Mayr, Gernot Grabmair, University of Applied Sciences Upper Austria	

SESSION	Materials and Manufacturing (2 of 2)		ROOM	Modulo 2.2
CHAIR	Silvio Defanti		CO-CHAIR	Tadao Okazaki
TITLE		PAPER N°	PRESENTER	AUTHORS
Evaluation of hydrogen sensitivity of metallic materials by Slow Strain Rate tests		25SETC-0122	Arianna Scatena	Arianna Scatena, Alexej Gamanets, Pontlab Srl
Establishing the method for simulation of electric potential in cooling water passages of outboard motors		2025-32-0008 20259208	Ryota Shibuya	Ryota Shibuya, Hiroki Suzuki, Honda Motor Co., Ltd.
Higher-strength, higher-toughness die cast wheel material using recycled aluminum		2025-32-0007 20259207	Noritaka Suzuki	Noritaka Suzuki, Honda Motor Co., Ltd.

SESSION	Hybrid and Electric Drives (3 of 3)		ROOM	Hall 2A
CHAIR	Lorenzo Berzi		CO-CHAIR	Stephen Teng
TITLE		PAPER N°	PRESENTER	AUTHORS
Development of high-efficiency, fully recyclable eMotors for light mobility applications produced in the EU		2025-32-0098 20259298	Thomas Valin	Koua Malick Cisse, Misa Milosavljevic, IFP Energies Nouvelles, Institut Carnot; Vincent Mallard, Mov'NTec; Thomas Valin, Gaetano De Paola, IFP Energies Nouvelles, Institut Carnot
Electrification potential of Small ICE Powertrain Applications		2025-32-0094 20259294	Stephan Schmidt	Stephan Schmidt, Hans-Juergen Schacht, Graz University of Technology; Konstantin Weller, Johann Friedrich Absenger, FVT mbH
Machine Learning-Enhanced Electrical Circuit Model Parametrization for Battery Cells: Reducing Experimental Workload Through GITT Testing with Altair RapidMiner®		2025-32-0097 20259297	Nicholas Canella	Luca Giuliano, Lorenzo Peretto, Nicholas Canella, Damir Nefat, Beond Srl