

SAE/JSAE 2016 Small Engine Technology Conference & Exhibition

Technical Session Schedule

As of 11/21/2016 07:40 pm

Tuesday, November 15

Tuesday Opening Ceremony and Keynotes

Session Code: SETCOP

Room Ballroom C1/C2/C3

Session Time: 8:30 a.m.

Time	Paper No.	Title
	ORAL ONLY	Some Impacts of Sustainability Consideration on Small Engines <i>Readily available and low cost fossil-derived fuels have a limited supply and there are still barriers to the widespread penetration of bio-derived fuels. This will eventually put pressure on the fuel supply. In light of this, the role of the small engine will be explored with an eye toward electrification and other displacement technologies. The different areas of the small engine industry will be addressed separately, and we will focus the discussion from a technological perspective. Other large-scale environmental considerations will also be discussed.</i> <i>Jaal B. Gandhi, Univ. of Wisconsin Madison</i>
	ORAL ONLY	Where Motorcycles Should Go When Automatic Drive and ICT Technology Has Realized to Automobiles? <i>They say some advanced countries or regions such as EU, California, the USA, are considering to prohibit internal combustion engines by 2050. Toyota announced last October that they will no longer be selling automobiles powered only by internal combustion engine, by the same year.</i> </p> <i>What will happen to motorcycles? Many people say motorcycles will survive with the simple schematic change to an electric motor and battery. It may not be so simple. There are other critical and essential technologies, such as ICT and auto drive, which are expected to be realized within 10-30 years.</i> </p> <i>These technologies could pose a threat to the existence of motorcycles, if they are not successfully utilized for motorcycles, as they have been for other automobiles. With their applications, traffic accidents may decrease dramatically with motorcycles, as well.</i> <i>Hiroshi Ito, Kawasaki Heavy Industries, Ltd.</i>

ORAL ONLY**Thermal Barrier Coatings for Improved HCCI Engine Efficiency and Operating Range: Small Engine Perspective**

Homogeneous Charge Compression Engine (HCCI) concept is an attractive option for future gasoline-fueled small engine applications. Autoignition, combustion, and low-end operating stability in an HCCI engine critically depend on the interplay between the in-cylinder thermal environment and chemical kinetics; therefore, in-depth characterization of this complex interdependence is required to overcome barriers to practical introduction of HCCI. Small size exacerbates the impact of heat losses on the near-wall zone, hence a particular relevance of thermal barrier coatings in the context of small engine applications. Highlights of the heat transfer research will include characterization of the heat transfer in the HCCI engine using experiments with heat flux probes mounted on both the cylinder head and the piston, the effect of the combustion chamber deposits (CCD) on near-wall phenomena, and on-going effort to engineer thermal barrier coatings (TBC) capable of producing most desirable effects on thermal efficiency, combustion efficiency and emissions of UBHC and CO.

Zoran S. Filipi, Clemson-ICAR

Tuesday, November 15**Advance Combustion: Part 1 of 2**

Session Code: SETC1

Room Ballroom C1/C2/C3

Session Time: 10:30 a.m.

This session focuses on advanced combustion technologies in both 4-stroke and 2-stroke engines. The scope of topics includes studies of mixture formation, dilution effects, ignition, abnormal combustion, engine efficiency, flame propagation, and emissions formation.

Organizers - William P. Attard, Fiat Chrysler Automobiles; Jaal B. Ghandhi, Univ. of Wisconsin Madison; Adrian Irimescu, Simona Silvia Merola, Istituto Motori CNR; Koji Yoshida, Nihon University

Chairpersons - Kai W. Beck, Mot GmbH

Assistant Chairpersons - Koji Yoshida, Nihon University

Time	Paper No.	Title
10:30 a.m.	2016-32-0001	Characterization of Different Injection Technologies for High Performance Two-Stroke Engines Franz Winkler, Roland Oswald, Oliver Schoegl, Graz University of Technology; Nigel Foxhall, BRP-Powertrain GmbH & Co KG
11:00 a.m.	2016-32-0002	A Study of Knocking in a Lean Mixture Using an Optically Accessible Engine Yuki Yoshida, Kotaro Takeda, Zhimin Lin, Masanori Yamada, Nihon University Graduate School; Akira Iijima, Mitsuaki Tanabe, Hideo Shoji, Nihon University
11:30 a.m.	2016-32-0005	A Study on the Knocking Characteristics of an SI-HCCI Engine by Using In-Cylinder Visualization Kotaro Takeda, Shimada Takashi, Yuki Yoshida, ZhiMin Lin, Akira Iijima, Hideo Shoji, Nihon University

The papers in this session are available in SAE Technical Paper Collection, COLL-TP-00568, and also individually. To purchase visit collections.sae.org

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Tuesday, November 15

Advance Combustion: Part 2 of 2

Session Code: SETC1

Room Ballroom C1/C2/C3

Session Time: 1:30 p.m.

This session focuses on advanced combustion technologies in both 4-stroke and 2-stroke engines. The scope of topics includes studies of mixture formation, dilution effects, ignition, abnormal combustion, engine efficiency, flame propagation, and emissions formation.

Organizers - William P. Attard, Fiat Chrysler Automobiles; Jaal B. Ghandhi, Univ. of Wisconsin Madison; Adrian Irimescu, Simona Silvia Merola, Istituto Motori CNR; Koji Yoshida, Nihon University

Chairpersons - Kai W. Beck, Mot GmbH

Assistant Chairpersons - Koji Yoshida, Nihon University

Time	Paper No.	Title
1:30 p.m.	2016-32-0008	Thermodynamic Split of Losses Analysis of a Single Cylinder Gasoline Engine with Multiple Spark Plug - Ignition Coil Configurations Balagovind Nandakumar Kartha, Srikanth Vijaykumar, Pramod Reddemreddy, Bosch Ltd., India
2:00 p.m.	2016-32-0006	Effect of Flight Altitude on the Knock Tendency of SI Reciprocating Turbocharged Engines Ran Amiel, Leonid Tartakovsky, Technion Israel Inst. of Technology
2:30 p.m.	2016-32-0007	Influence of Calcium-Based Additives with Different Properties on Abnormal Combustion in an SI Engine Kento Shimizu, Shuhei Takahata, Kenta Miura, Hideo Shoji, Akira Iijima, Nihon University; Toshimasa Utaka, Kazushi Tamura, Idemitsu Kosan Co Ltd

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Tuesday, November 15

NVH Technology: Part 1 of 2

Session Code: SETC16

Room Ballroom C1/C2/C3

Session Time: 3:30 p.m.

All aspects of small engine related noise and vibration are covered in this session including: generation, experimental techniques, measurement, numerical analysis, NVH materials, source identification, NVH quality and novel solutions.

Organizers - Thomas L. Lago, QirraSound Technologies Europe AB; Hiroshi Yano, Kawasaki Heavy Industries, Ltd.

Chairpersons - Thomas L. Lago, QirraSound Technologies Europe AB

Assistant Chairpersons - Hiroshi Yano, Kawasaki Heavy Industries, Ltd.

Time	Paper No.	Title
3:30 p.m.	2016-32-0039	Experimental Acoustic Analysis of a Motorcycle Dissipative Muffler in Presence of Mean Flow Andrea Fioravanti, Giovanni Vichi, Isacco Stiaccini, Giovanni Ferrara, University of Florence; Lorenzo Ferrari, National Research Council of Italy

4:30 p.m. **2016-32-0042** **Method for Optimizing Scooter Engine Mounts Position for Reduced Vibration**
Bhaarath Rajagopal Jeyapaal, Vamsi Krishna, Kannan Marudachalam, TVS Motor Co., Ltd.

Tuesday, November 15

Engine Controls: Part 1 of 3

Session Code: **SETC8**

Room Meeting Room 10/11

Session Time: **10:30 a.m.**

Papers in this session are related to design, development and testing of new or innovative electronic controls or control systems for internal combustion engines. Topics may include hardware, software and algorithm/function innovations as well as the associated sensors or actuators employed in the control system. Applications may range from very simple systems for 1-cylinder engines to more complex systems for high-performance or multi-cylinder engines.

Organizers - *Ken Fosaaen, Kerdea Technologies; Tobias Kallerhoff, Robert Bosch GmbH; Yutaka Nitta, SUZUKI MOTOR CORPORATION*

Chairpersons - *Ken Fosaaen, Kerdea Technologies*

Assistant Chairpersons - *Hiroimi Deguchi, Suzuki Motor Corp.*

Time	Paper No.	Title
10:30 a.m.	2016-32-0081	Analysis of the Turbocharger Speed to Estimate the Cylinder-to-Cylinder Injection Variations - Part 1 - Time Domain Analysis <i>Giovanni Vichi, Michele Becciani, Isacco Stiaccini, Giovanni Ferrara, University of Florence; Lorenzo Ferrari, National Research Council of Italy; Alessandro Bellissima, Yanmar R&D Europe; Go Asai, Yanmar Co Ltd</i>
11:00 a.m.	2016-32-0085	Analysis of the Turbocharger Speed to Estimate the Cylinder-to-Cylinder Injection Variations - Part 2 - Frequency Domain Analysis <i>Giovanni Vichi, Michele Becciani, Isacco Stiaccini, Giovanni Ferrara, University of Florence; Lorenzo Ferrari, National Research Council of Italy; Alessandro Bellissima, Yanmar R&D Europe; Go Asai, Yanmar Co Ltd</i>
11:30 a.m.	2016-32-0086	Performance Analysis of Data-Driven Plant Models on Embedded Systems <i>Tobias Gutjahr, ETAS Inc.</i>

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Tuesday, November 15

Engine Controls: Part 2 of 3

Session Code: **SETC8**

Room Meeting Room 10/11

Session Time: **1:30 p.m.**

Papers in this session are related to design, development and testing of new or innovative electronic controls or control systems for internal combustion engines. Topics may include hardware, software and algorithm/function innovations as well as the associated sensors or actuators employed in the control system. Applications may range from very simple systems for 1-cylinder engines to more complex systems for high-performance or multi-cylinder engines.

Organizers - *Ken Fosaaen, Kerdea Technologies; Tobias Kallerhoff, Robert Bosch GmbH; Yutaka Nitta, SUZUKI MOTOR CORPORATION*

Chairpersons - *Ken Fosaaen, Kerdea Technologies*

Assistant Chairpersons - *Yutaka Nitta, Suzuki Motor Corp.*

<i>Time</i>	<i>Paper No.</i>	<i>Title</i>
1:30 p.m.	2016-32-0087	Applying Combustion Chamber Surface Temperature to Combustion Control of Motorcycle Engines Satoshi Ichihashi, Keihin Corp.
2:00 p.m.	2016-32-0080	Improved Fuel Metering for Port Fuel Injection by Controlled Valve Operation Christian Steinbrecher, Haris Hamedovic, Andreas Rupp, Thomas Wortmann, Robert Bosch GmbH
2:30 p.m.	2016-32-0083	Experimental Investigations Regarding the Potential of an Electronic Ignition Timing Control for a Lawn Mower Engine Michael Zisser, Hans-Juergen Schacht, Reinhard Stelzl, Bernhard Schweighofer, Hannes Wegleiter, Stephan Schmidt, Graz University of Technology; Jakob Trentini, Viking GmbH; Jan-Philipp Banzhaf, Tim Gegg, Andreas Stihl AG & Co KG

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Tuesday, November 15

Engine Controls: Part 3 of 3

Session Code: SETC8

Room Meeting Room 10/11

Session Time: 3:30 p.m.

Papers in this session are related to design, development and testing of new or innovative electronic controls or control systems for internal combustion engines. Topics may include hardware, software and algorithm/function innovations as well as the associated sensors or actuators employed in the control system. Applications may range from very simple systems for 1-cylinder engines to more complex systems for high-performance or multi-cylinder engines.

Organizers - Ken Fosaaen, Kerdea Technologies; Tobias Kallerhoff, Robert Bosch GmbH; Yutaka Nitta, SUZUKI MOTOR CORPORATION

Chairpersons - Ken Fosaaen, Kerdea Technologies

Assistant Chairpersons - Yutaka Nitta, Suzuki Motor Corp.

<i>Time</i>	<i>Paper No.</i>	<i>Title</i>
3:30 p.m.	2016-32-0084	New Method to Estimate the Flow Rate of LPL-EGR Using Cylinder Pressure Sensor Shinichi Okunishi, Ken Ogawa, Honda R&D Co Ltd
4:00 p.m.	2016-32-0088	Alternative Engine Speed Sensing Using the Electric Signals of the Alternator Bastian Reineke, Jonathan Müller, Stefan Grodde, Wolfgang Fischer, Henning Heikes, Robert Bosch GmbH

Tuesday, November 15

Diesel Engine

Session Code: SETC4

Room Meeting Room 12/13

Session Time: 10:30 a.m.

Papers in this session will pertain to studies of naturally aspirated and boosted diesel engines including their design, emission control, NVH, fuel system, fuel type, aftertreatment, combustion quality, or engine control.

Organizers - Brian J. Callahan, Achates Power Inc.; Paul Litke, USAF; Luca Marchitto, Istituto Motori CNR;

Masahiko Sugimoto, Kubota Corp.; Cinzia Tornatore, Istituto Motori CNR

Chairpersons - Paul Litke, USAF

Assistant Chairpersons - Tadao Okazaki, Kubota Corp.

Time	Paper No.	Title
10:30 a.m.	2016-32-0062	Development of 2.4L Environmental-Friendly Diesel Engine with Mechanical Fuel Injection System Yusuke Miyata, Kubota Corp.
11:00 a.m.	2016-32-0063	Effects of EGR Addition onto Combustion Stability and Alternator Performance Variability of a Small, Single-Cylinder Diesel Generator Marc Cyrill Besch, April Nicole Covington, Derek Johnson, Nathan Fowler, Robert Heltzel, West Virginia University
11:30 a.m.	2016-32-0064	Spray, Mixture and Combustion Characteristics of Small Injection Amount Fuel Spray Injected by Hole Nozzle for Diesel Engine Keiya Nishida, Univ of Hiroshima; Takeru Matsuo, Mazda Motor Corp; Kang Yang, Youichi Ogata, Univ of Hiroshima; Daisuke Shimo, Mazda Motor Corp

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Tuesday, November 15

Two Stroke Engine: Part 1 of 2

Session Code: SETC17

Room Meeting Room 12/13

Session Time: 1:30 p.m.

This session contains manuscripts focused on two-stroke engines. Topics such as emissions, performance, and efficiency will be explored. Advanced combustion control, direct fuel injection, simulation models and experimental results will be presented.

Organizers - Brian J. Callahan, Achates Power Inc.; Pierre Duret, IFP School; Giovanni Ferrara, Univ. of Florence; Tomoo Shiozaki, Honda R&D Co., Ltd.

Chairpersons - Giovanni Ferrara, Univ. of Florence

Assistant Chairpersons - Tomoo Shiozaki, Honda R&D Co., Ltd.

Time	Paper No.	Title
1:30 p.m.	2016-32-0050	Guidelines for the Optimization of a Muffler in a Small Two Stroke Engine Francesco Testa, Universita degli Studi di Modena; Vincenzo Gagliardi, Marco Ferrari, EMAK Spa; Stefano Fontanesi, Universita degli Studi di Modena; Andrea Bertani, EMAK Spa
2:00 p.m.	2016-32-0048	Two-Stroke Engine Cleanliness via a Fuel Additive Garrett Parker, Stuart Bartley, Michael Nicholls, Lubrizol Corporation
2:30 p.m.	2016-32-0049	Development of High-Performance 25 cm³ Two-Stroke SI Engine for Light Weight Arborist-Chainsaw Kuniyoshi Eto, Masaru Nozawa, Masato Nara, Buhei Kobayashi, Daiki Shibasaki, Ken Shirai, Yamabiko Corp.

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Tuesday, November 15

Two Stroke Engine: Part 2 of 2

Session Code: SETC17

Room Meeting Room 12/13

Session Time: 3:30 p.m.

This session contains manuscripts focused on two-stroke engines. Topics such as emissions, performance, and efficiency will be explored. Advanced combustion control, direct fuel injection, simulation models and experimental results will be presented.

Organizers - Brian J. Callahan, Achates Power Inc.; Pierre Duret, IFP School; Giovanni Ferrara, Univ. of Florence; Tomoo Shiozaki, Honda R&D Co., Ltd.

Chairpersons - Giovanni Ferrara, Univ. of Florence

Assistant Chairpersons - Michihisa Mick Nakagawa, Kawasaki Heavy Industries, Ltd.

Time	Paper No.	Title
3:30 p.m.	2016-32-0046	Development and Experimental Investigation of a Two-Stroke Opposed-Piston Free-Piston Engine Stephan Schneider, German Aerospace Center (DLR); Marco Chiodi, FKFS; Horst Friedrich, German Aerospace Center (DLR); Michael Bargende, FKFS
4:00 p.m.	2016-32-0045	Mapping of Fuel Anti-Knock Requirements for a Small Remotely Piloted Aircraft Engine Joseph K. Ausserer, Marc D. Polanka, Air Force Institute of Technology; Jacob Baranski, Innovative Scientific Solutions, Inc.; Paul Litke, Air Force Research Laboratory

Tuesday, November 15

Functional Safety

Session Code: SETC20

Room Meeting Room 8/9

Session Time: 10:30 a.m.

Functional safety, defined as absence of unacceptable risk due to the hazards caused by mal-function in the systems is becoming a key factor in the development of vehicles and equipment and can pose a safety hazard. This increase in functional safety issues has raised the need for the automotive industry to develop its own functional safety standard. This session will highlight the approach of ISO 26262 may influence the safety level of related functions specific to small engine applications.

Organizers - Thomas L. Lago, QirraSound Technologies Europe AB; Takashi Mitome, Suzuki Motor Corp.

Chairpersons - Thomas L. Lago, QirraSound Technologies Europe AB

Assistant Chairpersons - Takashi Mitome, Suzuki Motor Corp.

Time	Paper No.	Title
10:30 a.m.	2016-32-0057	Research on Severity Class Evaluation Based on Various Crash Situations Involved with Motorcycles for ISO 26262 Yuji Arai, Makoto Hasegawa, Takeshi Harigae, Japan Automobile Research Institute
11:00 a.m.	2016-32-0058	Examination of Hazard Analysis and Risk Assessment and Exposure Research in the Real Traffic Situation of ISO 26262 for Motorcycles Makoto Hasegawa, Takanobu Kaneko, Japan Automobile Research Institute
11:30 a.m.	2016-32-0059	Construction of an ISO 26262 C Class Evaluation Method for Motorcycles Maki Kawakoshi, Takashi Kobayashi, Makoto Hasegawa, Japan Automobile Research Institute

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Tuesday, November 15

Materials: Part 1 of 2

Session Code: SETC14

Room Meeting Room 8/9

Session Time: 1:30 p.m.

This session will focus on the structure, processing, and properties of materials in small engine applications. Some possible topics include lightweighting of engine and vehicle components; heat treatment and surface processing; fatigue, fracture, and wear; coatings; and advanced ceramic, metallic, and polymeric materials.

Organizers - Mark Degler, Mercury Marine; Hirotaka Kurita, Yamaha Motor Co., Ltd.; David Elijah Palmer, BRP US Inc.; Leonid Tartakovsky, Technion Israel Inst. of Technology

Chairpersons - Brian J. Callahan, Achates Power Inc.

Assistant Chairpersons - Aki Kodai, Kawasaki Heavy Industries Ltd

Time	Paper No.	Title
1:30 p.m.	2016-32-0023	Development of Heat Resistant Titanium Alloy for Exhaust Valves Applicable for Motorcycles Shinji Kasatori, Yuji Marui, Honda R&D Co., Ltd.; Hideto Oyama, Kosuke Ono, Kobe Steel, Ltd.
2:00 p.m.	2016-32-0019	High Performance Aluminum Casting Alloys for Engine Applications David Weiss, ECK Industries Inc.
2:30 p.m.	2016-32-0020	Durability Improvement of Engine Valves and Interfacing Systems Balasubramanian Thiruvallur Loganathan, Srivenkata Subramani Narasimhan, Lakshminarasimhan Varadha Iyengar, Ajith Kumar Sandur, Sudhagar VEDIAPPAN, TVS Motor Co Ltd

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Tuesday, November 15

Materials: Part 2 of 2

Session Code: SETC14

Room Meeting Room 8/9

Session Time: 3:30 p.m.

This session will focus on the structure, processing, and properties of materials in small engine applications. Some possible topics include lightweighting of engine and vehicle components; heat treatment and surface processing; fatigue, fracture, and wear; coatings; and advanced ceramic, metallic, and polymeric materials.

Organizers - Mark Degler, Mercury Marine; Hirotaka Kurita, Yamaha Motor Co., Ltd.; David Elijah Palmer, BRP US Inc.; Leonid Tartakovsky, Technion Israel Inst. of Technology

Chairpersons - Brian J. Callahan, Achates Power Inc.

Assistant Chairpersons - Hirotaka Kurita, Yamaha Motor Co., Ltd.

Time	Paper No.	Title
3:30 p.m.	2016-32-0022	Comparative Small Engine Testing Using Hybrid Composite Cylinder Liners David Weiss, ECK Industries Inc.; Simon Beno, Chris Jordan, Intelligent Composites, LLC; Pradeep Rohatgi, University of Wisconsin
4:00 p.m.	2016-32-0024	Application of Rapid Heat and Cool Molding to High Strength Outer Parts without Painting Treatment Daisuke Sugio, Shinpei Okazaki, Honda R&D Co., Ltd.; Mitsuo Kaneko, FUJISEIKO Co., Ltd.

4:30 p.m. **2016-32-0021** **Thermoplastic Bearings for Lubricated Applications**
Stephen Gurchinoff, Solvay Specialty Polymers LLC

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Wednesday, November 16

Wednesday Plenary Session

Session Code: **SETCO2**

Room Ballroom C1/C2/C3

Session Time: **8:30 a.m.**

Moderators - *Tony Szczotka, Robert Bosch LLC*

Panelists - *Janet Buyer, US Consumer Product Safety Commission; Geoff Liersch, Robert Bosch (Australia) Pty. Ltd; Thomas Wallner, Argonne National Laboratory;*

Time	Paper No.	Title
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8:30 a.m.	ORAL ONLY	Plenary Panel
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Panelists - *Janet Buyer, US Consumer Product Safety Commission; Geoff Liersch, Bosch Corp.; Thomas Wallner, Argonne National Laboratory; Janet Buyer, US Consumer Product Safety Commission; Geoff Liersch, Bosch Corp.; Tony Szczotka, Robert Bosch LLC; Thomas Wallner, Argonne National Laboratory*

Wednesday, November 16

NVH Technology: Part 2 of 2

Session Code: **SETC16**

Room Ballroom C1/C2/C3

Session Time: **10:30 a.m.**

All aspects of small engine related noise and vibration are covered in this session including: generation, experimental techniques, measurement, numerical analysis, NVH materials, source identification, NVH quality and novel solutions.

Organizers - *Thomas L. Lago, QirraSound Technologies Europe AB; Hiroshi Yano, Kawasaki Heavy Industries, Ltd.*

Chairpersons - *Thomas L. Lago, QirraSound Technologies Europe AB*

Assistant Chairpersons - *Hiroshi Yano, Kawasaki Heavy Industries, Ltd.*

Time	Paper No.	Title
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10:30 a.m.	2016-32-0044	Research on Combustion Noise for Controlled Auto Ignition Engine Fueled with Natural Gas Effect of Stroke Bore Ratio and Ignition Timing
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Gaku Naoe, Honda R&D Co., Ltd.

11:00 a.m.	2016-32-0043	A Hybrid Development Process for NVH Optimization and Sound Engineering Considering the Future Pass-by Homologation Demands <i>Bernhard J. Graf, Christian Hubmann, Markus Resch, Mehdi Mehrgou, AVL LIST GmbH</i>
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Wednesday, November 16

Emissions: Part 1 of 4

Session Code: SETC5

Room Ballroom C1/C2/C3

Session Time: 1:30 p.m.

Papers in this session pertain to studies of exhaust emission control and the emission effects from fuels, engine controls, engine design, combustion quality, catalytic converters, diesel particulate filters, and other aftertreatment. The focus of the session is on reducing emissions and meeting international emission standards.

Organizers - Kai W. Beck, Mot GmbH; Jan Czerwinski, Univ. of Applied Sciences Biel-Bienne; Hiromi Deguchi, Suzuki Motor Corp.; Leonid Tartakovsky, Technion Israel Inst. of Technology

Chairpersons - Leonid Tartakovsky, Technion Israel Inst. of Technology

Assistant Chairpersons - Shosaku Chiba, Honda R&D Co., Ltd.

Time	Paper No.	Title
1:30 p.m.	2016-32-0069	Effect of Air-Fuel Ratio and Operating Conditions on Particle Emissions from a Small Diesel Engine <i>Indranil Brahma, Cristobal Manzanares, Rob Jennings, Odinnma Ofili, Matthew Campbell, Abishek Raghavan, Daniel Johnson, Peter Stryker, Bucknell Univ.</i>
2:00 p.m.	2016-32-0065	Effects of Port Injection Specifications on Emission Behavior of THC <i>Yoshinori Nakao, Yota Sakurai, Atsushi Hisano, Masahito Saitou, Masahide Kazari, Takahito Murase, Kozo Suzuki, Kawasaki Heavy Industries, Ltd.</i>

Wednesday, November 16

Emissions: Part 2 of 4

Session Code: SETC5

Room Ballroom C1/C2/C3

Session Time: 3:30 p.m.

Papers in this session pertain to studies of exhaust emission control and the emission effects from fuels, engine controls, engine design, combustion quality, catalytic converters, diesel particulate filters, and other aftertreatment. The focus of the session is on reducing emissions and meeting international emission standards.

Organizers - Kai W. Beck, Mot GmbH; Jan Czerwinski, Univ. of Applied Sciences Biel-Bienne; Hiromi Deguchi, Suzuki Motor Corp.; Leonid Tartakovsky, Technion Israel Inst. of Technology

Chairpersons - Leonid Tartakovsky, Technion Israel Inst. of Technology

Assistant Chairpersons - Hiromi Deguchi, Suzuki Motor Corp.

Time	Paper No.	Title
3:30 p.m.	2016-32-0072	Development of a NO_x Storage-Reduction Catalyst Based Min-NO_x Strategy for Small-Scale NG-Fueled Gas Engines <i>Fino Scholl, Paul Gerisch, Denis Neher, Maurice Kettner, Karlsruhe University of Applied Sciences; Thorsten Langhorst, Karlsruhe Institute of Technology; Thomas Koch, KIT Karlsruhe Institute Of Technology; Markus Klaissle, SenerTec Kraft-Wärme-Energiesysteme GmbH</i>
4:00 p.m.	2016-32-0071	Development of Base Metal Catalyst and Its Compatibility Study for Motorcycle Applications <i>Koji Ueno, Hiroyuki Horimura, Akiko Iwasa, Yuji Kurasawa, Honda R&D Co., Ltd.; Pascaline Tran, Ye Liu, BASF Corp</i>
4:30 p.m.	2016-32-0070	Improvement of the Thermal Durability of an Exhaust Gas Purifying Catalyst Using Size-Controlled Pt-Hydroxide Clusters <i>Toyofumi Tsuda, Kazuya Miura, Akio Hikasa, Keiji Hosoi, Fumikazu Kimata, SUZUKI MOTOR CORPORATION</i>

The papers in this session are available in SAE Technical Paper Collection, COLL-TP-00568, and also individually. To purchase visit collections.sae.org

Wednesday, November 16

Measurement and Simulation: Part 1 of 4

Session Code: SETC15

Room Meeting Room 10/11

Session Time: 10:30 a.m.

The session is associated with engine and vehicle simulation tasks and their related measurements. Simulation and measurement methodology as well as the simulation and measurement application on development tasks will find a place within the session

Organizers - Stephan Schmidt, Graz University of Technology; Tadao Okazaki, Kubota Corp.; Shigeru Fujii, Yamaha Motor Co., Ltd.; Giovanni Ferrara, Univ. of Florence

Chairpersons - Stephan Schmidt, Graz University of Technology

Assistant Chairpersons - Shigeru Fujii, Yamaha Motor Co., Ltd.

Time	Paper No.	Title
10:30 a.m.	2016-32-0027	Analysis of Low-Cost MEMS Accelerometer and Gyroscope Characteristics for Stochastic Sensor Simulation within Motorcycle Models <i>Alexander Winkler, Gernot Grabmair, University of Applied Sciences Upper Austria</i>
11:00 a.m.	2016-32-0032	Development of a GPS-Enabled Compact Data Logger to Evaluate Small Engine Usage in Actual Applications <i>Andrew Bejcek, Honda R&D Americas, Inc.</i>
11:30 a.m.	2016-32-0031	Analysis of Conventional Motorcycles with the Focus on Hybridization <i>Paul W. Rieger, Christian Zinner, Stephan Schmidt, Stefan Hausberger, Graz University of Technology</i>

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Wednesday, November 16

Measurement and Simulation: Part 2 of 4

Session Code: SETC15

Room Meeting Room 10/11

Session Time: 1:30 p.m.

The session is associated with engine and vehicle simulation tasks and their related measurements. Simulation and measurement methodology as well as the simulation and measurement application on development tasks will find a place within the session

Organizers - Shigeru Fujii, Yamaha Motor Co., Ltd.; Stephan Schmidt, Graz University of Technology; Giovanni Ferrara, Univ. of Florence; Tadao Okazaki, Kubota Corp.

Chairpersons - Stephan Schmidt, Graz University of Technology

Assistant Chairpersons - Tadao Okazaki, Kubota Corp

Time	Paper No.	Title
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1:30 p.m.	2016-32-0028	Investigations and Analysis of Working Processes of Two-Stroke Engines with the Focus on Wall Heat Flux <i>Pascal Piecha, Philipp Bruckner, Stephan Schmidt, Roland Kirchberger, Graz University of Technology; Florian Schumann, Stephan Meyer, Tim Gegg, Andreas Stihl AG & Co KG; Stefan Leiber, BRP-Powertrain GmbH & Co KG</i>
2:00 p.m.	2016-32-0033	Measurement and Prediction of Heat Transfer Losses on the XMv3 Rotary Engine <i>Tiago J. Costa, Universidade do Minho; Mark Nickerson, Daniele Littera, LiquidPiston Inc; Jorge Martins, Universidade do Minho; Alexander Shkolnik, Nikolay Shkolnik, LiquidPiston Inc; Francisco Brito, Universidade do Minho</i>
2:30 p.m.	2016-32-0034	Evaporation and Cold Start Behavior of Bio-Fuels in Non-Automotive Applications <i>Stephan Jandl, Hans-Juergen Schacht, Stephan Schmidt, Graz University of Technology; Ute Dawin, Armin Kölmel, Andreas Stihl AG & Co KG; Stefan Leiber, BRP-Powertrain GmbH & Co KG</i>

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Wednesday, November 16

Measurement and Simulation: Part 3 of 4

Session Code: SETC15

Room Meeting Room 10/11

Session Time: 3:30 p.m.

The session is associated with engine and vehicle simulation tasks and their related measurements. Simulation and measurement methodology as well as the simulation and measurement application on development tasks will find a place within the session

Organizers - Stephan Schmidt, Graz University of Technology; Tadao Okazaki, Kubota Corp.; Giovanni Ferrara, Univ. of Florence; Shigeru Fujii, Yamaha Motor Co., Ltd.

Chairpersons - Stephan Schmidt, Graz University of Technology

Assistant Chairpersons - Shigeru Fujii, Yamaha Motor Co., Ltd.

Time	Paper No.	Title
3:30 p.m.	2016-32-0037	Comparison of Different Downsizing Strategies for 2- and 3-Cylinder Engines by the Use of 1D-CFD Simulation <i>Christian Zinner, Stephan Jandl, Stephan Schmidt, Graz University of Technology</i>
4:00 p.m.	2016-32-0036	Establishment of Fuel Economy Estimation Method Focused on Transmission Efficiency of Rubber Belt Type CVT <i>Takamori Shirasuna, Ryoh Hatakeyama, Yukio Sakai, Honda R&D Co., Ltd.</i>
4:30 p.m.	2016-32-0030	1-D Simulation Model Developed for a General Purpose Engine <i>Takahiro Tsuchiyama, Tatsuya Kuboyama, Yasuo Moriyoshi, Chiba University; Toshiro Kiura, Hibiki Koga, Takayuki Aoki, Honda R&D Co., Ltd.</i>

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Wednesday, November 16

Engine Technology: Part 1 of 2

Session Code: SETC9

10:30 a.m.

Room Meeting Room 12/13

Session Time:

Advanced engine technologies, design, and development for thermal efficiency, performance, and emissions, including cycle simulation.

Organizers - Yuji Araki, Yamaha Motor Co., Ltd.; Satoshi INOUE, Honda R&D Co., Ltd.; Adrian Irimescu, Luca Marchitto, Istituto Motori CNR; Nagesh Mavinahally, Meggitt Control Systems

Chairpersons - Roland Kirchberger, Graz University of Technology

Assistant Chairpersons - Yuji Araki, Yamaha Motor Co., Ltd.

Time	Paper No.	Title
11:00 a.m.	2016-32-0096	Mass Balancing Measures of a Linkage-Based Extended Expansion Engine <i>Patrick Pertl, Michael Lang, Stephan Schmidt, Roland Kirchberger, Graz University of Technology</i>
11:30 a.m.	2016-32-0089	Development of Oil-Cooled Engine for Optimization of Engine Cooling System <i>Koichi Tanaka, Kunio Arase, Amane Kitayama, SUZUKI MOTOR CORPORATION</i>

Wednesday, November 16

Engine Technology: Part 2 of 2

Session Code: SETC9

Room Meeting Room 12/13

Session Time: 1:30 p.m.

Advanced engine technologies, design, and development for thermal efficiency, performance, and emissions, including cycle simulation.

Organizers - Yuji Araki, Yamaha Motor Co., Ltd.; Satoshi INOUE, Honda R&D Co., Ltd.; Adrian Irimescu, Luca Marchitto, Istituto Motori CNR; Nagesh Mavinahally, Meggitt Control Systems

Chairpersons - Roland Kirchberger, Graz University of Technology

Assistant Chairpersons - Satoshi INOUE, Honda R&D Co., Ltd.

Time	Paper No.	Title
1:30 p.m.	2016-32-0095	Development of Hydraulic- Controlled Variable Valve Lift System for Scooter Engine <i>Guo-Rong Wun, Cheng-Tse Chuang, Yong-Fu Syu, Chia-Sheng Wang, Yuh-Yih Wu, Taipei Univ of Technology</i>
2:00 p.m.	2016-32-0093	The Effect of Cooled Exhaust Gas Recirculation for a Naturally Aspirated Stationary Gas Engine <i>Denis Neher, Fino Scholl, Maurice Kettner, Karlsruhe University of Applied Sciences; Danny Schwarz, Markus Klaisle, Senertec Kraft-Wärme-Energiesysteme GmbH; Blanca Giménez Olavarria, University of Valladolid</i>
2:30 p.m.	2016-32-0092	Effect of Variable Cooling System for Fuel Economy Improvement on Scooter with Air Cooled Engine <i>Tomokazu Kobayashi, Kazuyuki Kosei, Sadaaki Ito, Satoshi Iijima, Honda R&D Co., Ltd.</i>

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Wednesday, November 16

Hybrids, Electric Drives, and Fuel Cells

Session Code: SETC12

Room Meeting Room 8/9

Session Time: 10:30 a.m.

This session will discuss hybrid and EV applications

Organizers - Glenn Bower, University of Wisconsin-Madison; Jay Meldrum, Michigan Technological Univ.; Hisayuki Sugita, Suzuki Motor Corp.

Chairpersons - Jay Meldrum, Michigan Technological Univ.

Assistant Chairpersons - Hisayuki Sugita, Suzuki Motor Corp.

Time	Paper No.	Title
10:30 a.m.	2016-32-0015	Assessment of Minimum Fuel Consumption Operation Strategy for Hybrid Powersport Drive-Trains by Means of Dynamic Programming Method Bernhard Schweighofer, Hannes Wegleiter, Michael Zisser, Paul Rieger, Christian Zinner, Stephan Schmidt, Graz University of Technology, Austria
11:00 a.m.	2016-32-0016	Use of Anti-Windup Techniques for Control of Solid Oxide Fuel Cells Maryam Sadeghi Reineh, Faryar Jabbari, University of California, Irvine

Wednesday, November 16

HCCI: Part 1 of 2

Session Code: SETC11

Room Meeting Room 8/9

Session Time: 1:30 p.m.

This session focuses on studies of auto ignition combustion including HCCI and other low temperature combustion regimes. Experimental and simulation studies pertaining to various means of controlling combustion are welcome.

Organizers - William P. Attard, Fiat Chrysler Automobiles; Jaal B. Ghandhi, Univ. of Wisconsin Madison; Tatsuya Kuboyama, Chiba Univ.; Tomoo Shiozaki, Honda R&D Co., Ltd.

Chairpersons - Paul Litke, USAF

Assistant Chairpersons - Tatsuya Kuboyama, Chiba Univ.

Time	Paper No.	Title
1:30 p.m.	2016-32-0010	Studies on the Effect of In-cylinder Charge Stratifications on High Load HCCI Combustion Kei Yoshimura, Shunichi Mori, Kenjiro Nakama, SUZUKI MOTOR CORPORATION; Jin Kusaka, Waseda University
2:00 p.m.	2016-32-0013	Effect of Streamer Discharge Assist on Combustion in a Supercharged HCCI Engine Yuya Higuchi, Hiroto Tanaka, Hyota Hoshino, Munehiro Matsuishi, Nihon University Graduate School; Akira Iijima, Hideo Shoji, Nihon University
2:30 p.m.	2016-32-0014	Reforming Controlled Homogenous Charge Compression Ignition - Simulation Results Amnon Eyal, Leonid Tartakovsky, Technion Israel Inst. of Technology

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Wednesday, November 16

HCCI: Part 2 of 2

Session Code: SETC11

Room Meeting Room 8/9

Session Time: 3:30 p.m.

This session focuses on studies of auto ignition combustion including HCCI and other low temperature combustion regimes. Experimental and simulation studies pertaining to various means of controlling combustion are welcome.

Organizers - William P. Attard, Fiat Chrysler Automobiles; Jaal B. Ghandhi, Univ. of Wisconsin Madison; Tatsuya Kuboyama, Chiba Univ.; Tomoo Shiozaki, Honda R&D Co., Ltd.

Chairpersons - Paul Litke, USAF

Assistant Chairpersons - Tomoo Shiozaki, Honda R&D Co., Ltd.

Time	Paper No.	Title
3:30 p.m.	2016-32-0009	Influence of Supercharging and EGR on Multi-stage Heat Release in an HCCI Engine Yuki Takamura, Takahiro Shima, Hirotaka Suzuki, Keito Agui, Nihon University Graduate School; Akira Iijima, Hideo Shoji, Nihon University
4:00 p.m.	2016-32-0011	A Study of HCCI Operating Range Expansion by Applying Reaction Characteristics of Low-Carbon Alternative Fuels Keito Agui, Hirotaka Suzuki, Yuki Takamura, Akira Iijima, Hideo Shoji, Nihon University
4:30 p.m.	2016-32-0012	Influence of EGR on Knocking in an HCCI Engine Using an Optically Accessible Engine Zhimin Lin, Kotaro Takeda, Yuki Yoshida, Nihon University Graduate School; Akira Iijima, Hideo Shoji, Nihon University

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Thursday, November 17

Emissions: Part 3 of 4

Session Code: SETC5

Room Ballroom C1/C2/C3

Session Time: 8:30 a.m.

Papers in this session pertain to studies of exhaust emission control and the emission effects from fuels, engine controls, engine design, combustion quality, catalytic converters, diesel particulate filters, and other aftertreatment. The focus of the session is on reducing emissions and meeting international emission standards.

Organizers - Kai W. Beck, Mot GmbH; Jan Czerwinski, Univ. of Applied Sciences Biel-Bienne; Hiromi Deguchi, Suzuki Motor Corp.; Leonid Tartakovsky, Technion Israel Inst. of Technology

Chairpersons - Leonid Tartakovsky, Technion Israel Inst. of Technology

Assistant Chairpersons - Yutaka Nitta, Suzuki Motor Corp.

Time	Paper No.	Title
8:30 a.m.	2016-32-0068	The Effect of Lean Operation, Ignition Advance, and Compression Ratio on the Performance and Emissions of a Propane Fueled Electronic Fuel Injected Engine Joel Prince Lobo, James Howard Lee, Eric Oswald, Spenser Lionetti, Robert Garrick, Rochester Institute of Technology

9:00 a.m. **2016-32-0076** **Effect of Ethanol Blended Fuel on Two Wheeler Tail Pipe Mass Emissions**

Rahul Sharma, Srikanth Setlur, Satish Vemuri, Chithambaram Subramoniam, TVS Motor Co Ltd

9:30 a.m. **2016-32-0075** **Effect of Ethanol Blended Fuel on Fuel Injected Two Wheeler Vehicular Mass Emissions**

Srikanth Setlur, Satish Vemuri, Chithambaram Subramoniam, Rahul Sharma, TVS Motor Co Ltd

The papers in this session are available in SAE Technical Paper Collection, COLL-TP-00568, and also individually. To purchase visit collections.sae.org

Thursday, November 17

Emissions: Part 4 of 4

Session Code: **SETC5**

Room Ballroom C1/C2/C3

Session Time: **10:30 a.m.**

Papers in this session pertain to studies of exhaust emission control and the emission effects from fuels, engine controls, engine design, combustion quality, catalytic converters, diesel particulate filters, and other aftertreatment. The focus of the session is on reducing emissions and meeting international emission standards.

Organizers - *Kai W. Beck, Mot GmbH; Jan Czerwinski, Univ. of Applied Sciences Biel-Bienne; Hiromi Deguchi, Suzuki Motor Corp.; Leonid Tartakovsky, Technion Israel Inst. of Technology*

Chairpersons - *Leonid Tartakovsky, Technion Israel Inst. of Technology*

Assistant Chairpersons - *Keiya Nishida, Univ. of Hiroshima*

Time	Paper No.	Title
10:30 a.m.	2016-32-0074	Technology Evaluation for Two Wheeler Based Personal Mobility in Emerging Markets beyond 2020 <i>Pradeep Ramachandra, Manohar Halahali, Prashanth Anantha, Bosch Limited</i>
11:00 a.m.	2016-32-0067	Multiscale, Multiphysics Computational Chemistry Methods Based on Artificial Intelligence Integrated Ultra-Accelerated Quantum Molecular Dynamics for the Application to Automotive Emission Control <i>Akira Miyamoto, Kenji Inaba, Yukie Ishizawa, Manami Sato, Rei Komuro, Masashi Sato, Ryo Sato, Patrick Bonnaud, Ryuji Miura, Ai Suzuki, Naoto Miyamoto, Nozomu Hatakeyama, Masanori Hariyama, Tohoku Univ.</i>

Thursday, November 17

SETC Closing Ceremony

Session Code: **SETCCL**

Room Ballroom C1/C2/C3

Session Time: **12:30 p.m.**

Thursday, November 17

Measurement and Simulation: Part 4 of 4

Session Code: **SETC15**

Room Meeting Room 10/11**Session Time: 8:30 a.m.**

The session is associated with engine and vehicle simulation tasks and their related measurements. Simulation and measurement methodology as well as the simulation and measurement application on development tasks will find a place within the session

Organizers - Shigeru Fujii, Yamaha Motor Co., Ltd.; Stephan Schmidt, Graz University of Technology; Giovanni Ferrara, Univ. of Florence; Tadao Okazaki, Kubota Corp.

Chairpersons - Stephan Schmidt, Graz University of Technology

Assistant Chairpersons - Tadao Okazaki, Kubota Corp

Time	Paper No.	Title
8:30 a.m.	2016-32-0029	Strength Analysis of Motocrosser Frame on Jump-Landing Shohei Suzuki, SUZUKI MOTOR CORPORATION
9:00 a.m.	2016-32-0026	The Design of Eco-Driving Scheme of Energy Saving Race Car Meichun Peng, Jiahao Wang, Guangdong Univ. of Tech.; Jiaru li, Honda Automobile (China) Co.,Ltd.
9:30 a.m.	2016-32-0025	FE Based Steering Bearing Design Optimization for Angular Contact Ball Bearings Govardan Daggupati, Bapanna Dora Karedla, Chandan Bansilal Chavan, Gagandeep Singh Risam, TVS Motor Co Ltd

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Thursday, November 17**Collegiate Events****Session Code: SETC3****Room Meeting Room 10/11****Session Time: 10:30 a.m.**

Papers in this session discuss innovations regarding entries in the SAE Collegiate Design Series (CDS) events. This year two papers describe Formula SAE innovations. The first discusses a novel approach to improved fuel economy using part load mapping. The second describes a highly integrated parallel hybrid design for the Formula Hybrid competition.

Organizers - Geoffrey McCullough, Queen's Univ. of Belfast; Takashi Mitome, Suzuki Motor Corp.

Chairpersons - Jay Meldrum, Michigan Technological Univ.

Assistant Chairpersons - Takashi Mitome, Suzuki Motor Corp.

Time	Paper No.	Title
10:30 a.m.	2016-32-0061	The Development of a Small Restricted Turbocharged Racecar Engine Da Wang, Jilin University; Dingchao Qian, China FAW Technology Ctr; Bo Wang, Columbia University

Thursday, November 17**Engine Components****Session Code: SETC7****Room Meeting Room 12/13****Session Time: 8:30 a.m.**

This session focuses on hardware attached to the engine such as support systems, injectors, EGR valves, manifolds, turbo-chargers, water pumps, and ignition systems.

Organizers - Adrian Irimescu, Luca Marchitto, Istituto Motori CNR; Takahito Murase, Kawasaki Heavy Industries, Ltd.

Chairpersons - Giovanni Ferrara, Univ. of Florence

Assistant Chairpersons - Takahito Murase, Kawasaki Heavy Industries, Ltd.

Time	Paper No.	Title
8:30 a.m.	2016-32-0077	Boosting Technologies and Limits for Small Combustion Engines Roland Baar, Valerius Boxberger, Maïke Sophie Gern, Technische Universität Berlin
9:00 a.m.	2016-32-0078	Characterization of Small-Scale Turbochargers for Unmanned Aerial Systems Mark R. Mataczynski, Paul Litke, USAF; Benjamin Naguy, University of Dayton Research Institute; Jacob Baranski, Innovative Scientific Solutions, Inc.
9:30 a.m.	2016-32-0079	Experimental Study on Optimization of the Intake Ports for Improving the Thermal Efficiency of Small Engines for Motorcycles Daisuke Fukui, Yoshinari Ninomiya, SUZUKI MOTOR CORPORATION

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Thursday, November 17

Alternative Fuels

Session Code: SETC2

Room Meeting Room 12/13

Session Time: 10:30 a.m.

This session includes papers focused on the gaseous and particulate emissions performance from operating small engines, both diesel and gasoline on oxygenated fuel blends.

Organizers - Simona Silvia Merola, Istituto Motori CNR; Tohru Nakazono; Paul Richards; Cinzia Tornatore, Istituto Motori CNR; Hiroya Ueda, Honda R&D Co., Ltd.

Chairpersons - Kai W. Beck, Mot GmbH

Assistant Chairpersons - Hiroya Ueda, Honda R&D Co., Ltd.

Time	Paper No.	Title
10:30 a.m.	2016-32-0056	Research on Applying Butanol-Gasoline Blend Fuel on Scooter Engine Qi-Jun Huang, Chia-Hong Chung, Yong-Fu Syu, Yuh-Yih Wu, Chao-Kai Li, National Taipei University of Technology
11:00 a.m.	2016-32-0055	Influence of Ethanol Content, Compression Ratio and Cylinder Head Material on Idling Speed, Warm-Up Time and Emissions of a Non-Road Small Single Cylinder Gasoline Engine Carlos Alberto Romero, Luz Adriana Mejia, Universidad Tecnológica de Pereira; Yamid Carranza, Universidad Tecnológica de Pereira

Thursday, November 17

Vehicle Dynamics and Safety: Part 1 of 2

Session Code: SETC18

Room Meeting Room 8/9

Session Time: 8:30 a.m.

This session will focus on the application of technology to improve the stability, handling, ride and comfort of two and three wheeled vehicles.

Organizers - Masayuki Baba, Honda R&D Co., Ltd.; Derek L. Cleasby, Bosch Engineering GmbH

Chairpersons - Thomas L. Lago, QirraSound Technologies Europe AB

Assistant Chairpersons - Masayuki Baba, Honda R&D Co., Ltd.

Time	Paper No.	Title
8:30 a.m.	2016-32-0051	Investigation of the Behavior of Three-Wheel Vehicles When They Pass Over a Low ζ Road Surface Keisuke Terada, Takayuki Sano, Kenichi Watanabe, Takashi Kaieda, Kazuhisa Takano, Yamaha Motor CO.,LTD
9:00 a.m.	2016-32-0053	Development of the Compact and Light Wheel Forces and Moments Sensor for Motorcycles Hisato Tokunaga, Kazuhiro Ichikawa, Takumi Kawasaki, Akiyuki Yamasaki, Kawasaki Heavy Industries, Ltd.; Tatsuo Ichige, Tomoyuki Ishimori, Yoichi Sansho, A&D Company,Limited
9:30 a.m.	2016-32-0054	Novel Low Cost Experimental Procedures to Estimate Lateral Force Characteristics of a Tire Barath Mohan, KVM Raju, Sai Praveen Velagapudi, TVS Motor Co., Ltd.; Chandramouli Padmanabhan, IIT Madras

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Thursday, November 17

Vehicle Dynamics and Safety: Part 2 of 2

Session Code: SETC18

Room Meeting Room 8/9

Session Time: 10:30 a.m.

This session will focus on the application of technology to improve the stability, handling, ride and comfort of two and three wheeled vehicles.

Organizers - Masayuki Baba, Honda R&D Co., Ltd.; Derek L. Cleasby, Bosch Engineering GmbH

Chairpersons - Thomas L. Lago, QirraSound Technologies Europe AB

Assistant Chairpersons - Masayuki Baba, Honda R&D Co., Ltd.

Time	Paper No.	Title
10:30 a.m.	2016-32-0052	Side View Assist - The World's First Rider Assistance System for Two-Wheelers Michael Schoenherr, Mathieu Grelaud, Robert Bosch GmbH; Ami Hirano, Bosch Corporation Japan