



Technical Sessions

Advanced Combustion

Organizers: Akira Iijima (Nihon University), William Attard (MAHLE Powertrain), Jaal Ghandhi (University of Wisconsin-Madison)

20119523

Experimental and Numerical Studies on Mixture Formation and Ignition Processes of Spray-Guided DISI Engines

Jiangping Tian, Hajime Kataoka, Keiya Nishida (University of Hiroshima), Kiyotaka Sato (Mazda Motors Corp.)

20119574

Efficiency improvement of a micro combined heat and power generation unit by installation of an extended expansion engine using multiple linkage system

Yoshiharu Takita, Atsumu Naoi (Honda R&D Co., Ltd.)

20119576

Effect of Wall Impingement on Heterogeneous Structure in Diesel Sprays

Noritsune Kawaharada, Daisaku Sakaguchi, Keisuke Komada, Hironobu Ueki, Masahiro Ishida (Nagasaki University)

20119577

The Effects of Electric Fields on Flame Propagation of Homogeneous Hydrogen-Air Mixture

Ryuichi Yamaguchi, Akira Iijima, Hideo Shoji, Koji Yoshida (Nihon University)

20119583

An investigation of 2-stage high-pressure injections on Combustion and Emissions in a D.I Compression-Ignition Engine

JaeHoon Jeong, OckTaeck Lim (University of ulsan), Dongwon Jeong, Norimasa Iida (Keio University)

20119584

A study on the Combustion Characteristics of the Hydrogen Compact Ceramic Linear Engine for the Compact Powerpack

Yong-il Oh (University of ulsan), Nam-yeol Kim (YURA Corporation), Ock-teack Lim (University of ulsan)

20119589

Design of a tumble-orientated intake port layout for a gasoline DI combustion process used in motor sport application

Oliver Schogl, Hermann Edtmayer, Martin Abart, Stephan Schmidt (Graz University of Technology), Thomas Schabetsberger, Stefan Leiber (BRP-Powertrain)

20119600

Thermodynamic Analysis and Comparison of the K6 Cycle

Matthew David Carlson, Timothy A. Shedd (University of Wisconsin-Madison), Jerry Kashmerick (Kashmerick Engine Systems LLC)

20119610

Reduction in Pollutant Emissions in an "Off-Road" DI Diesel Engine by Means of Exhaust Gas Recirculation

Patrizio Nuccio, Marco Bertone (Politecnico di Torino)

20119618

A Knock Limit Study of a Pre-Chamber Combustion System Enabling Compression Ratio Increases

William P Attard (MAHLE Powertrain)



Technical Sessions

Alternative Fuels

Organizers: Koji Yoshida (Nihon University), Paul Richards (Innospec Inc.)

20119520

Experimental Performance and Emission Characteristics of Bio Diesel Operated CI Engine

Sundara Pandian (Anna University-Tirunelveli), Deva Radjane (Anna University-Chennai)

20119531

Performance and Emission of a Spark Ignition Engine with Liquefied Petroleum Gas LPG Injection Method at Liquid Phase into the Intake Manifold

Nguyen Thanh Tuan, Stanislav Beroun (Technical University of Liberec)

20119535

Impact of the Wall Film Formation on the Full Load Performance of an Engine Operated with the Ethanol Blend E85

Thomas Lauer, Michael Heiß (Vienna University of Technology), Markus Klein (GM Europe Engineering)

20119551

Experimental Investigation in Combustion Characteristics of Ethanol-Gasoline Blends for Stratified Charge Engine

Chinda Charoenphonphanich (King Mongkut's Institute of Technology Ladkrabang), Piyaboot Ornman (TAIST Tokyo Tech Automotive Engineering Program), Nuwong Chollacoop (National Metal and Materials Technology Center), Hidenori Kosaka (Tokyo Institute of Technology)

20119553

Analysis of Ethanol Blended Gasoline Fuels Combustion on 4T Motorcycle Engine

Somnuek Jaroenjitsathian, Somchai Siangsanorh (PTT Public Company Limited), Kaukeart Boonchukosol (Society of Automotive Engineers Thailand)

20119561

A Study on Improvement of Diesel Spray Characteristics Fueled by Rape-seed Oil

Azwan Bin Sapit, Sho Nagayasu, Yasunori Tsuboi, Yuzuru Nada, Yoshiyuki Kidoguchi (The University of Tokushima)

20119562

Experimental Study on Performance, Emissions and Combustion Characteristics of Single Cylinder Dual Fuel LPG/Diesel Engine

Tuan Anh Le, Truc The Nguyen (Hanoi University of Science & Technology)

20119590

Diesel Combustion Characteristics of Biodiesel with 1-Butanol

Eiji Kinoshita, Kazunori Hamasaki, Ryota Imabayashi (Kagoshima University)

20119591

An Investigation on the Spray Characteristics of DME Common Rail Fuel Injection System with variation of Ambient Pressure

Se Jun Lee, Gun Ho Choi, Ock Taek Lim (University of Ulsan), Norimasa Iida (Keio University)

20119593

Ignition of DME Spray Impinging from Injector to Atmosphere by Laser-Ignition

Tomohiro Kumazawa (Kogakuin University), Takeshi Saito (Meisei University), Koji Korematsu, Junya Tanaka (Kogakuin University)

20119605

A Study on Influence of Forced Over Cooling on Diesel Engine Performance

Syuichi Nanba, Akira Iijima, Hideo Shoji, Koji Yoshida (Nihon University)



Technical Sessions

20119632

Numerical Analysis of Carbon Monoxide Formation in DME Combustion

Yuya Muramatsu (Ibaraki University), Mitsuharu Oguma, Tadanori Yanai (National Institute of Advanced Industrial Science and Technology), Mitsuru Konno (Ibaraki University)

20119641

Investigation of Combustion Characteristics of Palm Oil-Derived Methyl Ester as Ignition Improver in Modified Ethanol Fuelled Agricultural Direct-Injection Engine

Yossapong Laoonual, Sumreng Jugjai, Somchai Chanchaona, Kitti Iempremjit (King Mongkut's University of Technology Thonburi)

20119651

Methodology of Lubricity Evaluation for DME Fuel Based on HFRR

Mitsuharu Oguma, Shinichi Goto, Tadanori Yanai (National Institute of Advanced Industrial Science and Technology), Yasuhiko Mikita (Iwatani Corporation)

Collegiate Events

Organizers: Takashi Mitome (SUZUKI MOTOR CORPORATION),
Geoff McCullough (Queen's University Belfast), Jay Meldrum (Michigan Tech university)

20119549

Technical developments of power train of the 2010 F-SAEJ championship car originally developed by Osaka university student formula team

Shinichi Okunishi, Kyohei IZUMI, Takumi TOKINOYA, Yoshiyuki MATSUMOTO, Kenji YOSHIDA (Osaka University)

20119571

Improvement of a small engine's efficiency with a supercharger

Takashi Suzuki (Sophia University)

20119578

Feed-back control of ignition timing using peak cylinder pressure angle with rough timing table

Thu Huong Thi Tran, Hiroshi Enomoto, Kenichi Shimizu, Kosuke Nishioka (Kanazawa University)

20119579

Development of small gasoline engine with electronic variable valve timing unit

Thu Huong Thi Tran, Hiroshi Enomoto, Kenichi Shimizu, Kosuke Nishioka (Kanazawa University)

20119580

Effect of cylinder diameter of monotube-type MR-damper on the damping force change ratio and the response time

Hajime Komatsu, Hiroshi Enomoto, Toshihiko Komatsuzaki, Kohei Izumi (Kanazawa University)

20119588

Effect of Electrically controlled MR-damper on the cornering of small racing car

Hajime Komatsu, Hiroshi Enomoto, Toshihiko Komatsuzaki, Kohei Izumi (Kanazawa University)

20119617

Dry Sump Design for a 600cc Yamaha YZFR6 Engine

Shane McKenna, Chris McKeown, Glenn Sloan, Geoffery McCullough, Geoff Cunningham (Queens University Belfast)

20119636

Performance of a Flexible Fueled Snowmobile Operating on Ethanol Blended Gasoline for the 2011 SAE Clean Snowmobile Challenge

Gregory W Davis (Kettering University), Gregory Lazorcik



Technical Sessions

20119656

Development Process of a Formula SAE Vehicle of HU

Kazuki WATANABE, Ken TERAOKA (Hokkaido University)

Diesel Engines

Organizers: Yoshiro Tokunaga (Kawasaki Heavy Industries, Ltd.), Brian Callahan (Achates Power & Basco)

20119503

The Effect of Compression Ratio on a Common Rail Commercial Diesel Engine

Murali Manoharan, Shelav Jain, Kiran Karanjikar, Jagtap Harishchandra (Mahindra & Mahindra)

20119565

Combustion Chamber Optimization in a Single Cylinder D.I. Diesel Engine

Abishek M Thalagavara, K.S. Vishnu Kumar, Amit A Padaki, Sumit S Chavan, Pattabiraman V (TVS Motor Company)

20119602

Feasibility Study on the Utilization of Water-in-Oil Type Emulsified Fuels to Small DI Diesel Engines

Hironori SAITOH, Kouji UCHIDA (Sojo University)

20119606

Study on Performance of Diesel Engine Applied with Emulsified Diesel Fuel -The Influence of Fuel Injection Timing and Water Contents-

Masatoshi Iwai, Akira Iijima, Hideo Shoji, Koji Yoshida (Nihon University)

20119635

Development of EGR system for industrial diesel engine using CFD approach

Kazumichi Matsuishi, Tadao Okazaki, Masahiko Sugimoto (KUBOTA Corporation)

Emissions

Organizers: Hiromi Deguchi (SUZUKI MOTOR CORPORATION), Phil Pierce (Harley-Davidson Motor Company)

20119511

Exhaust emissions tests of small gasoline engines used as drives for power generators and handheld machinery

Piotr Lijewski (Poznan University of Technology)

20119512

Accelerated Durability Test for Metallic Substrates Tailored for Motorcycle Application

Lorenzo Pace (Emitec G.m.b.H.), Martin Forster, Rudolf Prem, Richard Humer (KTM-Sportmotorcycle AG), Francois Jayat, Roman Konieczny (Emitec G.m.b.H)

20119532

Study on Diffusion Behavior of Evaporative Fuel Gas from Gasoline in Carbon Canister in Consideration of Temperature-Dependence

Hideaki Kuronuma, Noriyuki Kobayashi, Soichiro Masuda (Nagoya University), Kazunari Satoh, Koji Yamasaki (MAHLE Filter Systems Corp.)

20119554

Characterization of Nano Particle Emissions and It's Metrics for 2-wheeler Motorcycles

Husein Adam Nakhawa, S. P. Tijare, S. S. Ramteke (The Automotive Research Association of India)



Technical Sessions

20119572

A demonstration of the emission behaviour of 50 cm³ mopeds in Europe including unregulated components and particulate matter

Juergen Tromayer, Gerd Neumann, Roland Kirchberger, Helmut Eichlseder (Graz University of Technology), John May, Dirk Bosteels, Cecile Favre (Association for Emissions Control by Catalyst (AECC) AISBL)

20119587

Different speed limiting strategies for 50cm³ two-wheelers and their impacts on exhaust emissions and fuel economy

Juergen Tromayer, Gerd Neumann, Roland Kirchberger (Graz University of Technology)

20119594

GHG'S FINAL RULE: IMPACT AND CONSEQUENCES IN THE SMALL OFF-ROAD ENGINE MARKET

Kai Willi Beck (Karlsruher Institute of Technology (KIT)), Patrick Ulmerich (AVL EMISSION TEST SYSTEMS GMBH), Soeren Bernhardt, Ulrich Spicher (Karlsruher Institute of Technology (KIT))

20119614

Diagnosotic signal to monitoring of catalytic converter in CI engine

Marcin Rychter (Motor Transport Institute)

20119654

Development of Single cylinder Gasoline Three wheeler for compliance to EUROII emission Norms

Balasaheb Jalindar Shinde, Hanumant S shedge (Piaggio Vehicles Pvt. Ltd)

20119657

High performance cost efficient catalytic coatings for carbureted small motorcycles

Ansgar Wille, M. Bonifer (W.C. Heraeus GmbH), U. Endruschat (Heraeus Catalysts (Danyang) Co., Ltd.)

Engine Components

Organizers: Toshimi Kobayshi (Kawasaki Heavy Industries, Ltd.), Robert Fleck (Queen's University Belfast), Roy Douglas (Queen's University Belfast)

20119533

Forged Straight Bevel Gear for Outboard Motor

Yuuki Eidome, Kouji Naganuma (SUZUKI MOTOR CORPORATION)

20119613

Transistor Coil Ignition System for Kick Start Based Small Engines

Dipanjan Mazumdar, Sivakumar A, Jabez Dhinagar (TVS Motor Company)

20119616

Optimization of Scooter Crankcase by Using Virtual Simulation and Testing

Saharash Khare, Dora K B, Manjunath Bhat, C Sasun, Sivakumar Balakrishnan (TVS Motor Company)

Engine Controls

Organizers: Yutaka Nitta (SUZUKI MOTOR CORPORATION), Tony Szczotka (Bosch)

20119508

KWP Communication Wake Up Pattern Detection Using Serial Communication Interface

Anand Patidar (Tata Motors Ltd.)

20119530

The Application on Model Based Calibration of Air Charge for Motorcycle Engine Management System

Xun Zhan, Hui Wang, Shousheng Wen, Yunfeng Xu (Chongqing Changan Visteon Engine Control Systems Co., Ltd.)



Technical Sessions

20119581

Development of Electronic Throttle Actuation for a 50cc 2-Stroke Scooter Application

Jeffrey Allen (Scion-Sprays Ltd.)

20119626

A Control Oriented Model Development for a Gas Control Path with a Stepper Motor-based Actuator for a Gas Engine

Himadri Bhushan Das, Kavitha Shailesh N, Srikanth Kanchi K (TVS Motor Company)

20119627

A Control Oriented Model Development for Fuel Delivering Structure of a Port Injection Based System

Kommuri Naga Kavitha, Himadri Bhushan Das (TVS Motor Company)

20119628

In Cylinder Air Determination Using Sliding Mode Observer for Turbocharged Diesel-Dual Fuel Engines with EGR

Ittidej Moonmangmee, Withit Chatlatanagulchai (Kasetsart University), Shinapat Rhienprayoon, Krisada Wannatong (PTT Public Company Limited)

20119629

Application of Air Fuel Ratio Control to a Motorcycle with Dual Oxygen Sensor

Takashi Abe, Yoshinobu Mori, Daisuke Yanase, Shinichi Kuratani (Kawasaki Heavy Industries, Ltd.)

20119631

Development of Low-cost Fuel Injection Control Unit for Small Motorcycles with Single-cylinder Engine

Keiji Kiyohara, Ryuji Asou (Keihin Corporation)

20119633

Air-path Supervisory Fuzzy Control of Diesel-Dual-Fuel Premixed-Charge-Compression-Ignition (DF-PPCI) Engine

Kittipong Yaovaja, Withit Chatlatanagulchai (Kasetsart University), Shinapat Rhienprayoon, Krisada Wannatong (PTT Public Company Limited)

20119637

Optimum Knock Sensor Location through Experimental Modal Analysis of Engine Cylinder Block

Yatin Vasant Chaudhary (TVS Motor Company), Stephen J Walsh (Loughborough University), Om Prakash Singh (TVS Motor Company)

20119655

In-cylinder Air and its Temperature Estimation of Diesel-Dual-Fuel

Premixed-Charge-Compression-Ignition (DF-PPCI) Engine with Turbocharger and EGR Systems using Fuzzy System

Kittipong Yaovaja, Withit Chatlatanagulchai (Kasetsart University), Shinapat Rhienprayoon, Krisada Wannatong (PTT Public Company Limited)

Engine Technology

Organizers: Takehiro Washizu (Yamaha Motor Co., Ltd.), Nagesh Mavinahally (LEHR Inc.)

20119506

Effects of Intake Port Geometry on the Performance of an S.I. Engine

B Selvaraj (TVS Motor Company), S.N Sridhara, G Indraprakash (MS Ramaiah School of Advanced Studies, Bangalore), A Senthilkumar, Arvind Pangaonkar (TVS Motor Company)



Technical Sessions

20119509

Compressed Air as Quality and Pollution Free Fuel Substitute in Reciprocating Engines - An Effective Solution to Improve The Engine Performance

Takayuki Sugita (Sanyo High School)

20119510

Estimation of the Indicated Mean Effective Pressure Using the Crankshaft Angular Velocity Variation

Kenji Nishida, Tetsuya Kaneko, Yoichi Takahashi, Koji Aoki (Honda R&D Co., Ltd.)

20119538

Research on Noise Reduction of Linkage Drive Gear in Extended Expansion Engine

Gaku Naoe, Kota Tokubi (Honda R&D Co., Ltd.)

20119540

A Novel 2D Computational Model for an Air-cooled Engine

Faiz Ahmed, Om Prakash Singh, Sandeep Kolluri, M. Kannan (TVS Motor Company)

20119552

Low Temperature Starting Techniques for Ethanol Engine without Secondary Fuel Tank

Chinda Charoenphonphanich, Wittawat Imerb (King Mongkut's Institute of Technology Ladkrabang), Nuwong Chollacoop (National Metal and Materials Technology Center (MTEC)), Katsunori Hanamura (Tokyo Institute of Technology)

20119555

Reduction of Engine Oil Consumption and Durability Improvement of Four Stroke Forced Air Cooled SI Engine

Parthiban Rajamani, B Sadesh, Mohan D Umate, V Lakshminarasimhan (TVS Motor Company)

20119557

Advanced Combustion System Analyses on a 125cc Motorcycle Engine

Frank Schuerg (Robert Bosch GmbH, Germany), K. Manikandan, Peter Roth (Bosch Ltd., India), Andre Kulzer, Andreas Kufferath (Robert Bosch GmbH, Germany)

20119566

Investigation of the Effects of Port Fuel Injection on Flame Behavior in Motorcycle Engine by Visualization Technique

Miki Yumoto, Kazuhiro Goto, Shoichi Kato, Minoru Iida (YAMAHA MOTOR CO., LTD.)

20119585

Charging and Powersport for Motorcycles: a contradiction?

Martin Abart, Christian Zinner, Oliver Schoegl, Stephan Schmidt (TU Graz), Thomas Schabetsberger, Stefan Leiber (BRP Powertrain)

20119595

Compact Engine Architecture for Best Fuel Efficiency and high Performance — Challenge or Contradiction

Christian Hubmann (AVL List GmbH)

20119615

Performance of Air Motor with Regenerating System Designed for Propulsion of Bicycle

Asako Sato, Yuya Abe, Akira Iijima, Hideo Shoji, Koji Yoshida (Nihon University)



Technical Sessions

Fuel Supply Systems

Organizers: Isato Taki (SUZUKI MOTOR CORPORATION), Dan Nehmer (BRP)

20119516

Development Of The Next Generation Fuel Pressure Regulator

Jeffrey A Schultz, Harish Domala (Schrader International)

20119528

Piezoelectric Controlled Carburettor

Kai Peter Niegetiet, Michael Reke, Sebastian P. Grobosch (VEMAC GmbH & Co. KG)

20119564

Development of the boost sensor-less fuel injection system for small motorcycles

Yuki Takano, Katsuhiko Utsugi, Kazuhiko Sakaguchi, Kenta Ohnishi (Honda R&D Co., Ltd.)

20119570

Research on the clogging mechanism of multilayered fuel filters and the extension of the filter life span in fuel with ethanol content

Atsushi Ito, Hideaki Ando, Keita Kinoshita, Fujio Umebayashi, Tsubasa Ishii (Honda R&D Co., LTD)

20119582

Effects of ethanol ratio and temperature on gasoline atomizing using the local-contact microwave-heating injector

Thu Huong Thi Tran, Hirosaki Enomoto, Motoki Kushita, Takaaki Sakitsu, Naoki Ebisawa, Kosuke Nishioka (Kanazawa University)

20119601

JP-8 Efficiency Optimization Using Fuel Injection in a 34cc 4- Stroke Spark-Ignition Engine

Cary W. Wilson (US Air Force), Frederick Schauer (Air Force Research Lab), John Hoke (Innovative Scientific Solutions Inc.), Paul Litke (Air Force Research Lab)

20119624

Fine atomization injector for gasoline engines

Akira Akabane (Keihin Corporation)

20119625

Improvement of fuel injectors for motorcycles engines

Kenichi Saitoh, Mitsutomo Kawahara, Kazuhiko Sato (Keihin Corporation)

HCCI

Organizers: Yasuo Moriyoshi (Chiba University), Jaal Ghandhi (University of Wisconsin-Madison), William Attard (MAHLE Powertrain)

20119521

Analysis of Supercharged HCCI Combustion Operating on a Blended Fuel

Ryosuke Shimizu, Akira Iijima, Koji Yoshida, Hideo Shoji (Nihon University)

20119522

A Study of HCCI Engine Operating on a Blended Fuel of DME and Methane

Kiyoshi Komatsu, Mitsuo Asanuma, Akira Iijima, Koji Yoshida, Hideo Shoji (Nihon University)

20119524

A Study of HCCI Combustion Using Spectroscopic Measurements and Chemical Kinetic Simulations - Effects of Fuel Composition, Engine Speed and Cylinder Pressure on Low-temperature Oxidation Reactions and Autoignition

Yusuke Takahashi, Kenta Suyama, Akira Iijima, Koji Yoshida, Hideo Shoji (Nihon University)



Technical Sessions

20119543

Effect of Anhydrous and Hydrous Ethanol on Performand and Non-Regulated Emissions of an HCCI Engine

Helmer R Acevedo, Felipe Rodriguez, Diego Gonzalez (Universidad Nacional de Colombia), Anil Bika (University of Minnesota)

Hybrids, Electric Drives, and Fuel Cells

Organizers: Yasuyuki Muramatsu (Yamaha Motor Co., Ltd.), Glenn R. Bower (University of Wisconsin-Madison)

20119527

Improvement of Fuel Consumption for the Strong Hybrid Motorcycle

Yukiharu Yuki Hosoi (YAMAHA MOTOR CO., LTD.)

20119546

Development of a Racing Motorbike with Electric Power Train

Peter Stuecke, Sebastian Fethke, Wolfgang Foken, Martin Jentsch, Andre Lehmann (Westsaechsische Hochschule Zwickau), Klaus Kloetzner (ADAC-Sachsen)

20119556

Development of Electric Scooter for Business Use

Toshiyuki Cho, Ryuji Akiba, Takashi Sone (Honda R&D Co., Ltd.)

20119560

Development of Electric Motor for Electric Two-Wheeled-Vehicle (EV) for Business Use

Naoki Kobayashi (Honda R&D Co., Ltd.)

20119586

A Methodical Approach for Thermal Management Simulation of Hybrid Powersport Applications

Stephan P Schmidt, Paul Rieger, Hermann Edtmayer, Alexander Trattner (Graz University of Technology), Christof Dutzler (BRP-Powertrain)

20119592

Concept Study of Range Extender Applications in Electric Scooters

Hans Juergen Schacht, Franz Winkler, Roland Kirchberger (Graz University of Technology)

20119596

Novel Range Extender Concepts for 2025 with Regard to Small Engine Technologies

Alexander Trattner, Patrick Pertl, Stephan Schmidt (Graz University of Technology), Takaaki Sato (DENSO Automotive Deutschland GmbH)

20119597

Low Cost Hybrid Scooter Study

Jeffrey Allen (Scion-Sprays Ltd.)

20119644

Development and Evaluation of Air-Cooled Fuel Cell Scooter

Kengo Ikeya, Yohei Takada, Toru Eguchi, Kazuhiko Mizutani, Tohru Ohta (SUZUKI MOTOR CORPORATION)

20119647

Integration Challenges for Air Cooled Fuel Cell Systems in Vehicles

Damian Patrick Davies, Nathan Grange (Intelligent Energy Ltd.)



Technical Sessions

Lubricants

Organizers: Tohru Nakazono (Yanmar Co., Ltd), Peter Kaub (Re-Sol, LLC)

20119513

The Development of a Low Viscosity, Highly Efficient Lubricant for Sport Motorcycle Applications

Gianluigi Zoli, Matthew Symonds, May Turner, Mark Leonard, Nick Solomon, Cliff Newman (Castrol Global Lubricants Technology)

20119536

Field to Lab Correlation and Lubrication Oil Change Frequency Estimation For Two Wheeled Vehicles Through Oil Analysis Technique

Anil V Singanamalli, Sasun C, Kumar Abhishek (TVS Motor Company)

20119545

Fuel Economy Durability - A Concept to be Considered for Motorcycle Oils

Brent Richard Dohner, George Szappanos, Alex Michlberger, Gajanayake Ananda (The Lubrizol Corporation)

20119634

Study of Lower Viscosity Motorcycle Engine Oils for Fuel Saving (2) -Anti-fatigue Performance-

Nobuaki Watanabe, Akira Mitarai, Maiko Inuzuka (Idemitsu Kosan Co.,Ltd.)

Materials

Organizers: Ogishi Hideyuki (Kawasaki Heavy Industries, Ltd.), David Palmer (BRP)

20119504

Application of J Factor to Evaluation of Leakage Quality for High Pressure Die Casting to Apply Closed-deck type Cylinder Block

Yamada Youji (YAMAHA MOTOR CO., LTD.), Jun Yaokawa (Tohoku University), Yoshii Hiroshi (YAMAHA MOTOR CO., LTD.), Anzai Koichi, Oikawa Katsunari (Tohoku University), Yuuta Bannai (YAMAHA MOTOR CO., LTD.)

20119607

Development of lightweight valve lifter made from DLC coated beta titanium alloy for motorcycles

Kosuke Doi, Hirotaka Kurita (YAMAHA MOTOR CO., LTD.)

20119612

Friction and Wear Reduction via Novel Porous Al-Si Cylinder Liners

Chung Hwa Kong (University Science Malaysia), Horizon Walker Gitano-Briggs (Universiti Sains Malaysia)

20119630

Lightening Approach for Small Vehicles by Developing Extruded Aluminum Suspension Arm

Ryo Yamauchi, Gouki Yotsuya (SUZUKI MOTOR CORPORATION)

20119645

Anodizing method for Aluminum alloy by using high-frequency switching electrolysis

Hiroomi Tanaka, Masahiro Fujita, Hitoshi Muramatsu (SUZUKI MOTOR CORPORATION)

20119649

Development of lead-free crankshaft for motorcycle

Osahiko Horii, Shigenori Yamada (SUZUKI MOTOR CORPORATION), Shigefumi Nishitani (Sumitomo Metals (Kokura), Ltd.), Kunihiro Hiraoka, Takahiro Nozawa (SUZUKI MOTOR CORPORATION)



Technical Sessions

Measurement & Simulation

Organizers: Tadao Okazaki (Kubota Corporation), Stephan Schmidt (Graz University of Technology), Andy Traxel (Briggs & Stratton Daihatsu LLC)

20119507

Craftsmanship - An objective approach to improve perceived quality in two wheelers

Anantha Narayanan Ramanathan, Gunalan Thanikachalam, Paul Christudass Arul Dass, Ravisankar Rajamani (TVS Motor Company)

20119518

Development of CVT Shift Dynamic Simulation Model with Elastic Rubber V-Belt

Daisuke Hirajo, Tetsuya Kimura, Koji Kobayashi (YAMAHA MOTOR CO., LTD.)

20119525

CFD investigation of the thermal behavior of a high performance bike engine

Stefano Fontanesi, Giuseppe Cicalese (University of Modena), Stefano Fantoni, Massimo Rosso (Ducati Motor Holding spa)

20119529

Investigation of the Flow Velocity in the Spark Plug Gap of a Two-Stroke Gasoline Engine Using Laser-Doppler-Anemometry

Kai Schreer, Kai W. Beck, Ulrich Spicher (KIT - Institut für Kolbenmaschinen)

20119534

Ultra-Downsizing of ICE: Simultaneous Increasing of Thermal Conversion Efficiency and BMEP while Reducing Emissions

Victor Gheorghiu

20119541

An experimental and computational investigation of two-stroke piston skirt scuffing

Om Prakash Singh, T. Sreenivasulu (TVS Motor Company), Yogesh Umbarkar (2Caepro Technologies Pvt. Ltd.), M. Kannan, Y. R. Babu (TVS Motor Company)

20119559

Formulation of three-dimensional piston behavior-analysis technique, which couples mechanism system analysis and structural analysis

Hirokata Murakami, Tomoharu Kawano, Naoto Ono, Narutake Nakanishi (Honda R&D Co., Ltd.)

20119563

Development of Simulation Technology for Dynamic Analysis of Water and Soil using Particle Method

Yosuke Yamamoto, Takayuki Sato, Genki Anraku (Honda R&D Co., Ltd.)

20119567

Accelerated Test Technique to Evaluate the Starting System of a Motorcycle Engine

S Sakthi Saravanan (TVS Motor Company)

20119608

Challenges In Muffler Mounting Design For Resilient Mounted Scooter Engine

Dora K B, Anandkumar M S, Anand R B, Jayaram N (TVS Motor Company)

20119609

Study of Auto Decompression Unit Tuning in a Motorcycle Engine

balasubramanian thiruvallur loganathan (TVS Motor Company)

20119622

An innovative exhaust muffler design for enhanced cooling

T Sreenivasulu, Om Prakash Singh, Kannan M (TVS Motor Company)



Technical Sessions

20119623

Sensory Evaluation for Motorcycle Gear Shift Feeling with Simulator

Akio Ikemoto (SUZUKI MOTOR CORPORATION)

20119639

Development of Computer Simulation Technology for Electrodeposition Painting Process

Takeshi Kashiya (SUZUKI MOTOR CORPORATION)

20119640

Study of Piston Temperature Measurement System used RF-MEMS

Takashi Tsuchiya (Shizuoka Institute of Science and Technology), Naoyuki Suda, Masaya Kunioka (SUZUKI MOTOR CORPORATION)

20119642

Prediction of Vibration Fatigue Life for Motorcycle Exhaust Systems

Masashi Michiue, Kenji Nishio, Takumi Kawasaki, Fumihide Inamura, Hiroshi Sugiura, Manabu Morikawa (Kawasaki Heavy Industries, Ltd.)

20119643

Prediction Method of the Speed Characteristics of V-Belt CVT

Michinori Takeuchi, Mitsugu Koide, Yoshihiko Sunayama (SUZUKI MOTOR CORPORATION)

20119646

Prediction Oil Parameter of Connecting Rod Small End Bearing of EF7 Engine by Artificial Neural Network by Simulation in AVL Excite Software

mohammad kazemi (tarbiat modares university), mohammad kazemi (IPCo), Timour Tavakoli Hashjin (tarbiat modares university), Siamak Alizadenia (IPCo), gholamhassan najafi (tarbiat modares university)

20119652

The Strength Analysis of ATV Frame on Computer Simulation

Daisuke Iwata (SUZUKI MOTOR CORPORATION)

20119653

The Stress Measurement of the Crankshaft for High-performance Engine

Satoshi Takayama (SUZUKI MOTOR CORPORATION)

NVH Technology

Organizers: Masahiko Sugimoto (Kubota Corporation), Ken Kicinski (Harley-Davidson Motor Company)

20119514

A Complete Acoustic Analysis on the Passive Effect of Small Engine Silencer Elements

Raimo Kabral, Hans Rammal, Juri Lavrentjev (Tallinn University of Technology), Fabio Auriemma (Universita Federico II di Napoli)

20119621

Design of Motorcycle Mufflers using Micro-Perforated Panels

Juri Lavrentjev, Hans Rammal, Raimo Kabral (Tallinn University of Technology)

20119650

Radiation Noise Analysis for Electric Scooter Swing-arm with Finite Element Method

Shunzi Sato, Yoshihiko Sunayama, Yoshisada Sakamoto (SUZUKI MOTOR CORPORATION)



Technical Sessions

Two Stroke Engines

Organizers: Tomoo Shiozaki (Honda R&D Co., Ltd.), Scott Miers (Michigan Tech University)

20119517

Multi-Layer Stratified (MuLS) Two-Stroke Engine

Nagesh S Mavinahally (LEHR Inc.), Jay S Veerathappa, Sharu Rajgiri (MavinTech), Vinayaka S Mavinahally (RECKON TECH INDIA)

20119526

1D and 3D CFD Investigation of Cyclic Dispersion and Knock Occurrence in a CNG Small-Size SI Engine

Stefano Fontanesi, Elena Severi (University of Modena), Fabio Bozza, Alfredo Gimelli (University of Naples "Federico II")

20119544

A Detached-Eddy Simulation (DES) of Scavenging and Mixture Preparation Process of a 2-Stroke Engine

Dalibor Jajcevic, Raimund Almbauer, Stephan Schmidt (Graz University of Technology), Karl Glinsner (BRP Powertrain GmbH & Co. KG)

20119620

Prediction of Secondary Air Injection System Performance Using Computer Simulation Techniques

Faiz Ahmed, Ajith Venkateswara Pai (TVS Motor Company)

20119638

Effect of Modified Intake Charge Stratification on the Performance Characteristics of a Two Stroke SI Engine

Arul Mozhi Selvan V (National Institute of Technology, Tiruchirappalli)

Vehicle Components

Organizers: Toshimi Kobayshi (Kawasaki Heavy Industries, Ltd.), Jim Carroll (South West Research Institute)

20119519

The Electric Steering Damper For Motocross

Nobuo Hara, Hitoshi Watanabe, Masanobu Negoro, Yasunobu Harazono, Masashi Matsuo, Terumi Yachi (YAMAHA MOTOR CO., LTD.), Satoshi Ishikawa (YAMAHA MOTOR ENGINEERING CO., LTD.)

20119539

A Failure Investigation of Engine Cradle Using Statistical and FE Methods

Senthilnathan Subbiah, O.P Singh, Srikanth Kaanchi Mohan, Arockia Pudumai Jeyaraj (TVS Motor Company)

20119568

Material and Geometric Optimization of Cast Handle bar subjected to Shock Loads

Dumpala Gangi Reddy, GSG Ravikanth (TVS Motor Company)

20119569

Design and Optimization of Rear Trailing arm in 3-wheeler

Ravi kanth GSG, Venkata Manga Raju K (TVS Motor Company)

20119573

Design of Motor-scooter Frame by Parametric Multi-body and Finite Element Integrated Approach

Govardan Daggupati, Dora K B (TVS Motor Company)



Technical Sessions

20119604

Stabilizer Bar Elastomer Bush Design with Self Lubricated Inner Liner to Prevent Noise

Anandan Sivakumar (Tata Motors Ltd.), Raghvendra Gopal

20119611

Design Optimization of Frame Stiffness through Hydroforming

Meghashyam Laxman Dighole, Dora K B, Chandan M R (TVS Motor Company)

Vehicle Dynamics and Safety

Organizers: Masayuki Baba (Honda R&D Co., Ltd.), Deane Jaeger (Harley-Davidson Motor Company),
Jim Carroll (South West Research Institute)

20119502

Simulation and Analysis of Small-vehicle Deceleration to Reduce Occupant Injury at Frontal Collision

Takanobu Fujimura (SUZUKI MOTOR CORPORATION)

20119537

Ride Comfort Analysis of Motorcycle Using Virtual Prototype

Chandan Bansilal Chavan, Dora Karedla, Rengarajan Babu, Mudassar A Shaikh (TVS Motor Company)

20119548

A Prediction of Cruising performance of Planing Craft with outboard motor

Tatsunori Kataoka (SUZUKI MOTOR CORPORATION)

20119558

Stability control of motorcycle

Yoshihiro Masuda, Yoshimoto Matsuda (Kawasaki Heavy Industries, Ltd.)

20119619

Study on stability of a two wheeler with heavy luggage

Deependra Singh Shekhawat, Venkata Mangaraju Karanam, Babu R (TVS Motor Company)