

SAE INTERNATIONAL

SAE Outlook for Future Engines/ Fuels & Future Engineers Symposium

October 23, 2014

Birmingham, United Kingdom

www.sae.org/events/pfi/2014



THURSDAY SPECIAL EVENTS

8:30 - 8:45 University Welcome Speech, Richard Williams, Pro-Vice-Chancellor and Head of College, Engineering and Physical Sciences, University of Birmingham and General Chair, Hongming Xu, Professor, University of Birmingham



Richard Williams



Hongming Xu

8:45 - 10:25 Keynote Speakers



Overview of Future Powertrains
Neville Jackson, Ricardo



Automotive Biofuels Road Map Work
Ausilio Bauen
E4tech

10:25 - 10:45 Coffee Break

10:45 - 12:25 Session 1: Future Fuels



Moderator:
Roger Cracknell,
Shell



Hydrotreated Vegetable Oil
Markku Kuronen,
Associate in Research and Technology: Neste Oil Corporation



The Contribution of Natural Gas to Commercial Road Transport
Steve Whelan,
Technical Director, Clean Air Power, UK



The Outlook for Road Transport Fuels in Europe
Heather Hamje,
Science Executive, CONCAWE



Biofuel Contribution to EU Road Transport in 2030
Ausilio Bauen
Director E4tech




Octane Number Trend of Future Fuels
Gautam Kalghatgi,
Principal Professional, Saudi Aramco


THURSDAY SPECIAL EVENTS

12:30 - 13:30 Lunch Break/Networking session

13:30 - 15:10 Session 2: Future Engines



Moderator:
Steve Richardson
Jaguar Land Rover




**System Approach
New Energy
Vehicle**
Heiko Weller,
Robert Bosch LLC



**Future Trends
Gasoline Engines**
Guenter K. Fraidl,
AVL LIST GmbH



**Subsystem
Requirements
for Low Carbon
Vehicles**
Dave Greenwood,
Univ. of Warwick



**Overview of Load
Extension with
Gasoline Com-
pression Ignition
(GCI) using 87 AKI
Fuel from 20 Bar
BMEP to Idle**
Stephen Ciatti,
Argonne National
Laboratory

15:10 - 15:20 Break


15:20 - 17:00 Session 3: Future Engines - Creating a Vision and Fulfilling the Expectation



Moderator:
Richard Stobart,
Loughborough
University



Jenny Body,
President of the
Royal Aeronautical
Society




Fred Maillardet,
Chair the Institution
of Mechanical En-
gineers Education
Advisory Group
and former Dean of
Engineering, Brighton
University



Jo Lopes, Head of
Technical Excel-
lence, Jaguar Land
Rover



Helen Wollaston,
Director of WISE



Zoran Filipi, Timken
Endowed Chair
in Vehicle System
Design at Clemson
University

THURSDAY SPECIAL EVENTS

17:00 - 18:30

Student Poster Session & Tours of the Mechanical Engineering School Laboratories

Student Poster Entries:

Thermally Efficient Advanced Diesel Exhaust Aftertreatment

Isaline Lefort, University of Birmingham

Effect of an Oxygenated Functional Group in a Fuel Molecule on Exhaust Gas Emissions and Engine Thermal Efficiency of a Compression Ignition Engine

Elina Koivisto, University College London

Method for Determining the Oxidation Stability of Biofuels by Means of Dielectric Spectroscopy

Mustafa Eskiner, Coburg Univ. of Applied Sciences

Bio Lubricants in Automotive Applications

Julia Carrell, Univ. of Sheffield

Lowering Boiling Curve by Metathesis Reaction

Martin Kortschack, Coburg Univ. of Applied Sciences

Characterization of Particulate Matter Emitted From Gasoline Direct Injection Engines

Maria Bogarra Macias, Univ. of Birmingham

Development of a Fast-acting, Time-resolved Gas Sampling System for Combustion Analysis

Midhat Talibi, University College London

Development and Experimental Investigation of a Compressed Air Engine

Vasu Kumar, Delhi Technological University

Laser-induced Fluorescence Spectroscopic Sensor for Real-time Identification of Fossil Diesel Fuel, Biodiesel and Biodiesel Blends

Viktor Gross, Coburg Univ. of Applied Sciences

Characterisation of Spray Development with Hydrous and Anhydrous Ethanol Fuels for Direct-Injection Spark-Ignition Engines

Jaimin Shukla, Pavlos Aleiferis, University College London; Mark L. Brewer, Shell Global Solutions UK; Roger Cracknell, Shell

Development of an Isobutanol Flexible Fueled Performance Trail Snowmobile for the SAE Clean Snowmobile Challenge

Madeleine Scanlon Moir, Michael Jaymes Cox, Gregory W. Davis, Kettering Univ.

A new experimental approach to achieve controlled HCCI-DI combustion by in-cylinder multi injection strategy: Methods, results and discussions

Pranab Das, Indian Institute of Technology-Delhi

Dieseline Partially Premixed Compression Ignition Combustion

Soheil Zeraati Rezaei, Univ. of Birmingham

Impact of DMF and MF on Engine Performance and Emissions as New Generation of Sustainable Biofuels

Chongming Wang, Univ. of Birmingham

Impact of Cold Ambient Conditions on Diesel Engine Emissions and the Performance of Diesel Oxidation Catalyst

Dai Liu, Univ. of Birmingham

Influences of cold ambient temperature on particulate emission under transient operating condition

Jianyi Tian, Univ. of Birmingham

A Study of Methodology for the Investigation of Engine Transient Performance

Cheng Tan, Birmingham Univ.

18:30

Presentation of prizes for best posters followed by networking reception

Great Hall foyer

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