

Welcome and Opening

08:15 Welcome and Opening by
the Organizing Professors

Keynote Speech

08:25 RDE of Motorcycles, LDVs and
HDVs – Measuring Challenges
and Relevant Parameters

Prof. Dr. Helmut Eichlseder
Technische Universität Graz



Real Driving Emissions

09:10 Understanding the Real World Driving
Performance of Water Injection System for
GDi Engines

B. Wagener, G. Dober, C. Letty, G. Scott
Delphi Technologies

09:40 Emission Constrained Eco-Driving and its
HIL Validation

J. Deng, P. Polterauer, L. del Re
Johannes Kepler University Linz

10:10 RDE-Cycle-Generation – a Statistical Approach
to Provide a Secure Base to Approve RDE
Legislation Compliance

J. Claßen, F. Dorscheidt, S. Sterlepper
VKA, RWTH Aachen University

A. Balazs, M. Doucet, M. Görgen,
S. Krysmon, M. Nijs, J. Scharf
FEV Europe GmbH

10:40 Break and Postersession

Control Units and Calibration

11:30 Sensitivity Study towards Dynamic Combustion
Control

T. Sakai, T. Kuronita
DENSO CORPORATION

O. Herrmann, B. Moergastel,
R. Puts, D. Queck, S. Visser
DENSO AUTOMOTIVE Deutschland GmbH

12:00 Real-Time NOx Simulation in a Scalable
Closed-Loop Application Framework

M. Wiedemeier, C. Kriese, N. Meyer, J. Sauer
dSPACE GmbH

12:30 Feedback Combustion Control with a Full
Functional Engine Control Unit Based on a
Multiple-Core Microcontroller for Compression
Ignition Engines

C. Fang, P. Tunestal,
Lund University

F. Yang
Tsinghua University

13:00 Lunch

Keynote Speech

14:15 Large Engine Combustion Control

Dr.-Ing. Christian Poensgen
Senior Vice President Engineering
MAN Diesel-Turbo



Learning Algorithm

15:00 Learning Unstable Combustion Limits in SI Engines at EGR-Diluted Conditions Using an Explicit Reference Governor Approach

B. Maldonado, N. Li, I. Kolmanovsky,
A. Stefanopoulou
University of Michigan

15:30 Feedback Control for Multi-Modal Heat Release

G. Moretto
ETH Zurich

16:00 Stochastic Knock Control with Normal-Gamma Distribution Learning for Gasoline Engines

K. Zhao, T. Shen
Sophia University

16:30 Break

Advanced Control Algorithm / OC

17:00 Integrated Emission Management Control Strategy for Optimal Real-World Performance

P. Mentink, X. Seykens
TNO Automotive

17:30 Model-Predictive Air-Path Control for a Turbo-Charged SI-Engine with Low Pressure EGR

M. Keller, D. Abel
irt, RWTH Aachen University

S. Geiger, M. Günther, S. Pischinger
VKA, RWTH Aachen University

T. Albin
IDSC, ETH Zurich

18:00 End of Lectures – Day One

19:30 Dinner

Dinner on June 5, 2019

19:30 Reception and Welcome

The dinner will take place at the Restaurant Elisenbrunnen close to the famous Elisenbrunnen pump room.

The dinner is free of charge for attendees.
The fee for accompanying persons is € 50.

Address:

Restaurant Elisenbrunnen
Friedrich-Wilhelm-Platz 14
52062 Aachen

www.eb-aachen.de

Technical Presentations



Intensive Discussions



Networking Dinner



Keynote Speech

08:15 DualFuel Combustion and their HPDI Technology

David Mumford, M.A.Sc
Senior Director,
HPDI Product Portfolio
Westport



Modeling

09:00 Semi-Empirical Models for Diesel Engine Emissions Prediction

S. Sharma, Y. Sun, B. Vernham
Isuzu Technical Center of America

09:30 Gasoline Engine Performance Simulation of Water Injection and Cooled Low Pressure EGR using Tabulated Chemistry

T. Franken, F. Mauß
BTU Cottbus-Senftenberg

L. Seidel
LOGE Germany GmbH

A. Matrisciano
Chalmers University of Technology

M. Gern, M. Kauf
TU Berlin

A. Kulzer
Porsche AG

10:00 A Physics-based Model for Model Based Control of PCCI Diesel Combustion Engine

W. Pan, M. Korkmaz, H. Pitsch
itv, RWTH Aachen University

10:30 Break

Actuators and Sensors

11:00 iVT, Intelligent Valve Technology, Development of a 16 Valve Cylinder Head

C. Douglas
Camcon Auto Ltd.

11:30 The effect of operating parameters of an amperometric NOx-O2 sensor on the sensor response

M. Aliramezani
University of Alberta

12:00 HCCI Combustion Stability Improvement Using a Rapid Ignition System

D. Gordon, C. Koch
Mechanical Engineering, University of Alberta

C. Wouters, B. Lehrheurer, S. Pischinger
VKA, RWTH Aachen University

S. Kinoshita
SOKEN, INC.

J. Andert, M. Wick
Mechatronic Systems for Combustion Engines,
RWTH Aachen University

12:30 Supervisory Control for Cold Start Optimisation of a Mild Hybrid Gasoline Engine with Electric Catalyst Heating

D. Velmurugan, J.-O. Olsson
Volvo Car Corporation

T. McKelvey
Chalmers Institute of Technology

13:00 Conclusion and Final Remarks

Registration

Please register for the
Symposium for Combustion Control at:

www.scc-aachen.de

Payment

The registration fee of € 650 (plus 19 % VAT) also includes the dinner on June 5, as well as the printed and digital proceedings. Your registration will be confirmed by the invoice which will be sent to you. Registration is completed after receipt of payment.

Please note that in case of cancellation prior to April 24, 2019, the participant's fee will be reimbursed (less € 65 exclusive of 19 % VAT for administrative costs). After that, the participant's fee cannot be reimbursed.

Hotel Reservation

To receive special rates at the Novotel, please book your hotel room only by phone or e-mail:

Phone: +49 241 5159-100

E-mail: aachen.reservierung@accorhotels.com

Password: SCC 2019

Further hotels can be found here:

<https://www.aachen-tourismus.de/en/planning-booking/hotels-accommodations/>

Parking

We recommend to use the public car park near the Venue.

Schumacherstraße 12
52062 Aachen

General Questions / Attendees

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Venue

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