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## Research day program, 7<sup>th</sup> and 8<sup>th</sup> September, 2017

Competence Center for Gas Exchange @ KTH

### 7th September

Lindstedtsvägen 26, KTH Campus, Room F3

**11:00** Meet and Greet Registration

**11:30** Introduction - Research Directions for ICE/Gas Exchange Systems, Swedish/Global perspective.  
Anders C. Erlandsson

**12:00** High Efficiency and Gas Exchange, Jari Hyvönen, Wärtsilä Oy.

**12:30** Lunch

**13:30** Research Area presentations: COLDSIDE, HOTSIDE, EAT, SYSINT by Mihai Mihaescu, Mikael Karlsson, Anders C. Erlandsson

**14:00** Project presentations PhD students (15 minutes + 5 min questions / each)

Elias Sundström, KTH-Mek; *Large Eddy Simulations of Compressor Flows at Low Mass Flow Rates.*

Asuka Gabriele Pietroniro, KTH-Mek/MWL/Volvo Cars; *On the Aerodynamically generated Sound in Centrifugal Compressors.*

Valeriu Dragan KTH-Mek; *Analysis of non-axisymmetric Vaneless Diffuser Configurations – impact on range of Operability and Performance.*

Nicholas Anton, KTH-ICE/SCANIA; *Engine Optimized Turbine Design.*

**15:30** Coffee Break

**15:45** Project presentations PhD students

Marcus Winroth, KTH-Mek; *Gas Dynamics at Exhaust Valves and Ports.*

Ted Holmberg, KTH-ICE; *Valve Strategies and Exhaust Pulse Utilization.*

Shyang Maw Lim, KTH-Mek; *Flow and Heat Transfer in a Turbocharger Radial Turbine.*

Sandhya Thantla, KTH-ICE; *Low Temperature Waste Heat Recovery (WHR) in IC Engines.*

**17:15** Lab visit CCGEx turbo/MWL & Refreshments All, Bengt guides

**18:15** Dinner – Syster & Bror All

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**8th September**

**Brinellvägen 68, Room M312**

**08:30** Project presentations PhD students

Zhe Zhang (Simulations), KTH-MWL; *Grouping of Particles in Gas Exhaust Systems by using Acoustics.*

Ghulam Majal (Simulations), KTH-MWL/Mek; *Control of Particle Agglomeration with relevance to After-Treatment Gas Processes.*

Arun Prasath (Exp), KTH-ICE; *Particulate characterization in the Gas Exchange Systems of DI/SI Engines.*

Senthil Krishnan Mahendar, KTH – ICE; *Heavy Duty DISI Gas Exchange Processes with Alternative Fuels.*

**10:00** Coffee break

**10:15** CCGEx targets & focus areas 2018-2021 – Proposed research questions by Anders C. Erlandsson, Mihai Mihaescu, Mats Åbom

**10:35** Workshop on research questions and feedback collection All

**12:15** Conference summary & closing remarks by Anders C. Erlandsson

**12:30** Lunch, Alba Nova All

**13.45** ICE lab visit ALL, guided by Christer Spiegelberg

**14:30** Conference close

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