Research day program, 11-12 October, 2018, Stockholm

Agenda - Day 1

11 October 2018

First Hotel - Nortull Konferencenhet, Sankt Eriksgatan 119, 113 43 Stockholm

09:45-10:00  Registration & Coffee

10:00-10:30  Opening by CCGEx Director - Anders Christiansen Erlandsson

2014-2017 CCGEx Summary Report on Research Activities

Part 1  Ongoing Projects

10:30-11:05  Research Area: Compressor Off-Design Operation (CoD)
              -  Mihai Mihaescu: intro + overview (5 minutes)
                o  Asuka G. Pietroniro, Ind. PhD Student, Volvo Cars (10+5 min). “Computational Aeroacoustics of aerodynamically generated sound in Centrifugal Compressors.”

11:10-12:15  Research Area: HOTSIDE
              -  Mihai Mihaescu: intro + overview (5 minutes)
                o  Marcus Winroth, KTH-Mek (10+5 min). “Gas Dynamics of Exhaust Valves.”
                o  Ted Holmberg, KTH-ICE (10+5 min). “Valve Strategies and Exhaust Pulse Utilization.”
                o  Shyang Maw Lim, KTH-Mek (10+5 min). “Aerothermodynamics and Exergy Analysis in Turbocharger Radial Turbine.”
                o  Nicholas Anton, Ind. PhD Student, SCANIA (10+5 min). “Engine Optimized Engine Turbine.”

12:30-13:30  LUNCH

13:30-14:20  Research Area: Engine After Treatment (EAT)
              -  Mats Åbom: intro + overview (5 minutes)
                o  Zhe Zang, KTH-MWL (10+5 min). “Agglomeration of Particles in Gas Exhaust Systems by using Acoustics.”
                o  Ghulam M. Majal, KTH-MWL/Mek (10+5 min). “Agglomeration of Particles in Exhaust Gases by flow manipulation.”
                o  Arun Prasath, KTH-ICE (10+5 min). “Particulate characterization in the Gas Exchange Systems of DI/SI Engines.”
14:25-15:00  **Research Area: Power Train System Integration (SYSINT)**
- Anders Christiansen Erlandsson: intro + overview (5 minutes)

15:00-15:30  **COFFEE**

**Part 2**  **Interviews (two parallel sessions – island configurations)**
15:30-16:10  IAB interviews with PhD Students
15:30-16:10  Interaction between senior researchers /faculty at CCGEx & Industrial Partners
16:10-16:50  IAB interviews with senior researchers and faculty at CCGEx
16:10-16:50  Interaction between industry partners
16:50-17:30  IAB meets industry partners

**18:00**  **DINNER at Nortull Konferencehotell**

End of Day 1

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Agenda - Day 2

12 October 2018

Brinellvägen 83, room Gladan, KTH-Campus, Stockholm

08:30 Kick-off the new program period by CCGEx Director - Anders Christiansen Erlandsson
  Background, Program formulation & Targets, Organization, Financing

09:00-10:15 New Research Areas, Projects, and Students
  - i-COLD Mihai Mihaescu:
    o Compressor Response to upstream/downstream installation effects and perturbations – Emelie Trigell, PhD Student
    o Aerodynamically generated noise of centrifugal compressors – Experiments – Post Doc (NN)
    o Non-linear system identification techniques for acoustic characterization of turbochargers under high level of pulsating flow excitation - Marie Curie student Niloofar Sayyad Khodashenas (4:th year) – Associated project

  - i-HOT Mihai Mihaescu:
    o Turbocharger turbine efficiency in steady and pulsating inlet flows – experiments – Yushi Murai, PhD Student
    o Turbine performance optimization with focus on maximizing exergy transfer – Roberto Mosca, PhD Student

10:15-10:45 COFFEE

10:45-12:00
  - i-SYS Anders Christiansen Erlandsson:
    o Exergy losses in high efficiency charging – Beichuan Hong, PhD Student
    o Engine charging and EAT interaction during transients – Varun Venkataraman, PhD Student

12:00-13:00 LUNCH

13:00-14:00 IAB meets CCGEx leadership team
  - Summary of impressions

14:00-15:00 Optional Lab Tour

End of Day 2