



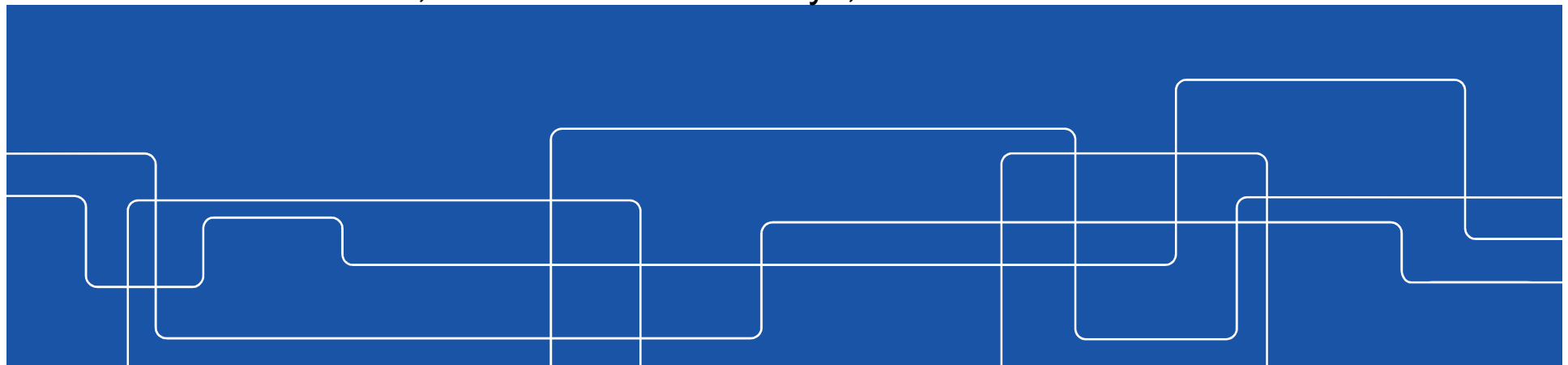
CCGEx: Ongoing Projects

Research Area: Power Train System Integration (SYSINT)

Anders Christiansen Erlandsson
Professor, KTH-Machine Design



11-12 October 2018, CCGEx Research Days, Stockholm



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SYSInt: Overall aims



- Improved understanding
 - Combustion process & gas exchange system interaction
 - System efficiency – thermodynamic, mechanical, electrical
 - Thermal integration & emissions reduction efficiency
 - Component interactions
 - Transients system dynamics & control
 - New Concept assessment
- Transition to model predictive engineering
 - Investigate/develop strategies for model aggregation
 - Development of reduced order Models
 - Model validation through experiments and simulation

PhD Students:

Senthil Mahendar, ICE

Sandhya Thantla, ICE

CCGEx Coordinator: A.C. Erlandsson

Reference group:

Habib Aghaali, Volvo Cars

Johan Engström, Volvo GTT

Johan Linderyd, Scania



SysInt Individual projects



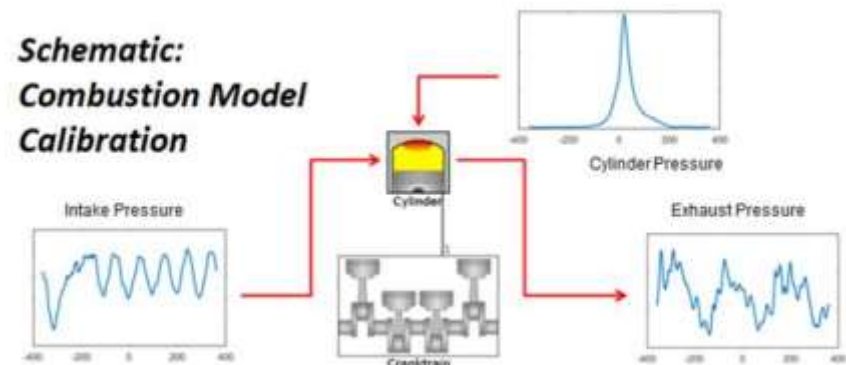
Heavy Duty DISI Gas Exchange Processes with Alternative Fuels

Doctoral student:

Senthil Mahendar, Machine Design, ICE

Supervisor:

Anders C Erlandsson



Low Temperature Waste Heat Recovery (WHR) in IC Engines

Doctoral student :

Sandhya Tanthla

Supervisors:

Anders C Erlandsson, Jens Fridh



Competence Center for Gas Exchange



”Charging for the future”



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