EORCC WORKSHOP DETROIT 2017



WEDNESDAY, NOVEMBER 15 th , 2017		
09:00	Registration	
09:45	Introductory Remarks Kevin Laboe, FCA Group	
10:00	Welcome and introduction	
10:10	Keynote Presentation 1 Dr. Gary Smyth, Executive Director, Global Research and Development, GM	
	Technical Session ONE: WHR Applications	Technical Session TWO: Systems Modelling
11:00	Improving The Total Cost Of Ownership Of Exhaust Heat Recovery Systems By Utilizing The Engine Coolant Heat – Test Stand Investigations On An Internal Combustion Engine Thomas Arnold IAV GmbH	Optimisation Of Low Grade ORC WHR System Within Practical Constraints Dr. Alexander Fedotov TP Group
11:30	Coffee	
12:00	A Comparison Between Achievement From ORC System And Other Technologies For Heavy-Duty Combination Tractors Yousef Jeihouni FEV North America Inc	Waste Heat Recovery Potential Analysis For Heavy Duty Truck Applications Based On Transient Road Cycle Simulations Thomas Reiche Volvo















12:30	Efficiency Gains Using Waste Heat To Power On Reciprocating Engines By Electratherm, Inc. John Fox ElectraTherm	Thermo-Economic Optimization Of Small-Scale ORC Systems For Heat Recovery From Natural Gas Internal Combustion Engines For Stationary Power Generation Antonio Marco Pantaleo Imperial College London
13:00	Lunch	
	Technical Session ONE: WHR Applications	Technical Session TWO: Systems Modelling
14:00	Organic Rankine Cycle Waste Heat Recovery System Net Power Optimization Utilizing Dynamic Programming in Heavy Duty Diesel Engine Applications Bin Xu Clemson University	Efficiency Maps Of Reciprocating-Piston Expanders For ORC Applications Dr. Christos Markides Imperial College London
14:30	High Temperature Waste Heat Recovery From Gensets With Integrated Pump-Expander Assembly Alejandro Lavernia Purdue University	Waste Heat Recovery From ICE Employing Two-Phase Engine Coolant As Working Fluid Davide Ziviani Purdue University
15:00	Rankine Cycle, From Thermodynamic Equation To Road Test Thibault Fouquet Faurecia Clean Mobility	
15:30	Coffee break	
16:00	Panel Discussion on Challenges and Obstacles for the Mass Production of Automotive ORC-Systems	
16:45	Wrap up and close Kevin Laboe, FCA Group	
17:00	Welcome reception	















THURSDAY, NOVEMBER 16 th , 2017		
09:30	Welcome back and recap Kevin Laboe, FCA Group	
09:45	KEYNOTE PRESENTATION 2 Prof Eckhard Groll, Professor of Mechanical Engineering, Purdue University	
	Technical Session THREE: Testing	Technical Session TWO: Systems Modelling
10:30	Oil Circulating Rate Impact In Organic Rankine Cycles For Exhaust Heat Recovery In Heavy Duty Trucks Rémi Daccord EXOES	Optimisation of Internal Combustion Engine Coupled with Organic Rankine Cycle with Exergo-Economic Approach Cedric Rouaud Ricardo
11:00		Multi-Objective Optimization Of Organic Rankine Cycle Power Systems For Waste Heat Recovery On Heavy-Duty Vehicles Dr. Muhammad Imran, Technical University of Denmark
11:30	Coffee	
	Technical Session THREE: Testing	Technical Session FOUR: System Controls
12:00	Experimentation And Modeling Of A 1.5 Kw Axial Turbine For Waste Heat Recovery On A Passenger Car Trough The Use Of A Rankine Cycle Olivier Dumont University Of Liege	Model Predictive Control for Organic Rankine Cycle applied to Hybrid Vehicles Alan Agurto Goya Jaguar Land Rover
12:30		Control Of Organic Rankine Cycle Based Waste Heat Recovery System Payam Soulatiantork Queen's University Belfast















13:00	Lunch	
	Technical Session THREE: Testing	Technical Session FIVE: Working Fluids
14:00	Preliminary experimental study on vibration characteristics of single screw expanders Wei Wang Beijing University of Technology	Low Gwp Working Fluids For Low Temperature Organic Rankine Cycles In Waste Heat Recovery Applications Jason Juhasz Chemours
14:30	Experimental Investigation Of Waste Heat Recovery Using An Organic Rankine Cycle For Heavy Duty Trucks Max Hombsch Dana Belgium NV	A Moving Boundary Modeling Approach For ORC Heat Exchangers Operating With Binary Mixtures Donghun Kim Purdue University
15:00	Coffee break	
	Technical Session SIX: Expander Technologies	
15:30	Sliding Vane Rotary Expander In ORC-Based Plat For Exhaust Heat Recovery Prof. Roberto Cipollone University of L'Aquila	
16:00	Panel Discussion on ORC Working Fluids	
16:45	Wrap Up and close Kevin Laboe, <i>FCA Group</i>	
19:00	Conference dinner	















FRIDAY, NOVEMBER 17 th , 2017		
09:30	Welcome back and recap Kevin Laboe, FCA Group	
09:45	KEYNOTE PRESENTATION 3 Vincent Grelet, PhD, Tenneco Clean Air Europe "Rankine Cycle Based Power Systems: Past, Present And Future Perspectives"	
	Technical Session SIX: Expander Technologies	Technical Session SEVEN: Heat Exchanger Techologies
10:30	Proof Of Concept Project For The Development Of A Linear Motion Piston Expander Device Dr Luke Blades Queen's University Belfast	System-Level Optimization Approach of Cross-Flow ORC Evaporators Adrian Folgueira Borg Warner
11:00	Design Optimization of Scroll Expander for Waste Heat Recovery from Stationary Internal Combustion Engines Kunal Bansal Air Squared Inc.	Material Choice for Liquid Cooled Condensers Using an Ethanol / Water Mixture as a Working Fluid Adam Kimmel Modine Manufacturing Company
11.30	Panel Discussion on the Coming Enablers in terms of either Technology, Legislation, Economic Factors or Other Forces	
12:15	Closing Remarks Kevin Laboe, FCA Group	
12:30	Lunch and networking	













