



Wednesday, September 23, 2020

AM Session	Plenary & Keynote: Zero Emissions & Battery Propulsion Pathways Session Chairs: Jim McCarthy, PhD Chief Engineer Eaton Hank Sullivan Director Tenneco	PM Session	Design & Engineering Session Chair: Louise Arnold, PhD Director Johnson Matthey
Time	Virtual Classroom – Live	Time	Virtual Classroom – Live
8:30 am	Innovation in Commercial Vehicle Powertrains for 2024 – 2030 Emissions Mihai Dorobantu, PhD Eaton	1:15 pm	NOx and GHG Reduction Over Real World Drive Cycles in a HD Test Cell Using Diesel CDA with NVH Quantification James McCarthy, Jr., PhD, Eaton
9:15 am	Trends in Powertrain Evolution: Legislation and Architecture Developments Louise Arnold, PhD Johnson Matthey	1:45 pm	Real-world Emissions Test Results from US and European Passenger Car Markets Nick Molden, James Hobday Emissions Analytics LLC
9:45 am	Updating New Regulations in China Reggie Zhan, PhD	2:15 pm	Model-based Exhaust Aftertreatment Optimization Waldemar Linares, PhD AVL Powertrain Engineering
10:15 am	Break		
10:30 am	Fundamental and Application Challenges in Emissions Aftertreatment Components Krishna Kamasamudram, PhD Cummins	2:45 pm	Break
11:00 am	Update on Path to 2027 Emissions Chris Sharp, PhD SwRI	3:00 pm	48V EGR Pump for Fuel Economy Improvement and NOx Reduction for Diesel Engines Justin Hopkins Eaton
		3:30 pm	High Porosity SCR Substrate Tan Son NGK Detroit
11:30 am	EV Battery Enclosure Overview Warren Parsons General Motors	4:00 pm	The future of the Internal Combustion Engine from Science to Systems Robert Wagner, PhD National Transportation Research Center Oak Ridge National Laboratory
12:00 pm	Next Generation Circuit Protection in Electric Vehicles Kevin Calzada Eaton		
12:30 pm	Challenging Each Other: Advancing Capabilities and Needs for Battery Cells vs Battery Systems Kent Snyder Ford		
1:00 pm	Session Adjourned & Break	4:30 pm	Adjournment



Thursday, September 24, 2020

AM Session	Catalytic Reduction Session Chairs: Krishna Kamasamudram, PhD Technical Advisor <i>Cummins</i> Tsuyoshi Asako Manager <i>NGK</i>	PM Session	Systems Optimization Session Chairs: Waldemar Linares, PhD Business Development Manager <i>AVL Powertrain Engineering</i> Ashok Kumar, PhD Technical Advisor <i>Cummins</i>
Time	Virtual Classroom – Live	Time	Virtual Classroom – Live
8:30 am	Flow and Forced Convection Heat and Mass Transfer Characteristics of Developed Laminar Flow in Channels of Relevance to Emissions Control Devices: Wash-coated Monoliths & Asymmetric Particulate Filters Tim Watling, PhD <i>Johnson Matthey</i>	12:30 pm	Power systems architectural approach for current and future emissions Eric J. Hruby <i>John Deere</i>
9:00 am	Real-World Emissions Testing Experience and Results from Construction, Locomotive and Marine Applications Nick Molden, James Hobday <i>Emissions Analytics LLC AVL</i>	1:00 pm	Advances in Opposed Piston Engines Showing Promise for 2027 Emissions Fabien G. Redon <i>Achates Power</i>
9:30 am	ULNOx: A Model Based Approach Gustav Johnson <i>AVL</i>	1:30 pm	Fundamental and Application Challenges in Emissions Aftertreatment Components Part 2 Ashok Kumar, PhD <i>Cummins</i>
10:00 am	Break		
10:30 am	Rim's GreenPower™ Muffler "H-EGR" reduces Fuel Consumption and Climate Change Julius J. Rim, PhD <i>IMET</i>	2:00 pm	Q & A – Discussions All topics, and Virtual Engagements
11:00 am	Measurement of Polycyclic Aromatic Hydrocarbons (PAH) and Hydrocarbon Speciation in Diesel Exhaust using Partial and Total Dilution Systems Robert Fanick, Vinay Premnath, PhD, Dewitt Evans, PhD, Brian Moczygemba, PhD <i>Southwest Research Institute</i>	3:00 pm	Adjournment
11:30 am	A Modeling and Experimental study on Hydro-Thermal Deactivation of NO oxidation activity on DOC Rama Krishna Dadi, PhD, Ashok Kumar, PhD Rohil Daya PhD, Saurabh Y Joshi, PhD, Michael Cunningham, PhD, Aleksey Yezerets, PhD <i>Cummins Inc</i>		
12:00 pm	Session Adjourned & Break		