## TRANSPORTATION: HEAVY-DUTY VEHICLES
## THURSDAY, NOVEMBER 7 - ROOM 102-A/B, 1:30 PM - 3:30 PM

- **Heavy Duty Fuel Cell Engine Design and Performance Review** - *Michael Harrington, US Hybrid*

  - This paper presents the product performance data for two commercially available fuel cell engines purpose built for heavy duty diesel engine replacement.

- **Heavy Duty Truck Cooling Challenges** – *Chris Brockbank, Vice President, Engineering Services, Ricardo*

  - This presentation will discuss the key challenges facing the industry regarding integrating cooling systems into Heavy Duty Trucks.

- **Advanced Fuel Cell Systems For Heavy Duty Vehicles** - *Nathan Joos, Hydrogenics Corporation*

  - This presentation will present the latest performance and durability results for Hydrogenics HyPM HD high power platform for mobility power systems by showcasing the full scale system test results.

- **Scaling up Fuel Cell Heavy Duty Vehicle Deployments** - *Tim Sasseen, Ballard Power Systems*

  - This presentation will look at the current market drivers and the challenge of scaling up deployments of fuel cell heavy duty vehicles.

- **Direct Hydrogen PEM Fuel Cell Powertrain Manufacturing Cost Analysis for Heavy Duty Truck Applications** - *Yong Yang, Austin Power Engineering LLC*

  - A bottom-up manufacturing cost analysis was conducted for a direct hydrogen PEM fuel cell system which was designed for heavy duty trucks.

- **SOFC REX with Adsorption Chiller - The Future of Urban Public Transportation?** - *Thomas Krauss, AVL List GmbH*

  - AVL investigated the coupling of an SOFC REX with an onboard adsorption chiller for heating and cooling of the vehicle.