

Systems to Ensure Safe, Efficient Transportation Systems

In order to maximize the advances in both safety and environmental technology to save lives and attain a cleaner environment, the global transportation industry must continue to implement effective strategies to connect the vehicle to the infrastructure. This is true of all vehicle types including aircraft, automobiles and trucks as well as off-road equipment in the construction and agricultural industries. Without a seamless connection, the true potential of the ever expanding technology available to the transportation sector will fall short.

Challenges include:

- Inefficient global air traffic management system wastes time, money and Green House Gasses (GHG) emissions.
- Connection of new hybrid electric and electric vehicles with the electric grid.
- Integrated connection of vehicle systems to the highway infrastructure to maximize safety and environmental gains.
- Greater use of autonomous vehicles in mining, construction and agricultural sectors to improve safety and reduce costs to the consumer.

What SAE International Can Offer:

SAE International is a non-biased global source of technical information that can be used by government decision makers as part of the process when formulating legislation or regulations related to transportation connectivity issues. The information comes in many forms including peer-reviewed technical papers, workshop or symposia findings, technical standards, cooperative research studies, etc. The sources of the information include the best and brightest individuals from the private sector, academia and government both in the U.S. and throughout the world.

Examples include:

- SAE is at the forefront of efforts to standardize detailed technical aspects of modern satellite-based air traffic management. SAE works closely with not only the FAA NextGen office but also with International Civil Aviation Organization (ICAO) and the European Single European Sky ATM Research Programme (SESAR) Joint Undertaking.
- SAE International is a leading standards organization identified in the Phase 1 NIST Framework and Roadmap for SmartGrid Interoperability Standards paragraph 5.13 for "Interoperability Standards to Support Plug-In Electric Vehicles."
- SAE is working with other organizations and consortia such as ISO, IEC, utility companies, IEEE, EPRI, ZigBee Alliance, HomePlug Power Alliance, automotive OEMs and suppliers, and many others in the development of specifications and standards to address the requirements of the SmartGrid strategy.
- SAE works with FHWA on standards development related to the IntelliDrive program to advance developments in active safety to reduce accidents and improve fuel efficiency by reducing congestion.
- SAE conducts conferences and standards development activities to include the knowledge base for technology related to unmanned vehicles on the ground and in the air to increase safety of commercial ventures as well as military exercises.
- SAE's Truck & Bus Council recently published standard "J1939/73 – Application Layer – Diagnostics" which identifies the diagnostic connector to be used for the vehicle service tool interface and defines messages to accomplish diagnostic services. California-regulated OBD II requirements are satisfied with a subset of the specified connector and the defined messages.

Contact Us:

To explore SAE's technical information, whether it is technical papers, standards, and/or SAE Fellows who are industry experts related to automotive, commercial vehicle or aerospace issues, please contact the following:

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