
J3016 provides a taxonomy describing the full range of levels of automation in on-road motor vehicles. It also includes operational definitions for advanced levels of automation and related terms. This document provides a foundation for further standards development activities and a common language for discussions within the broader “Automated/Autonomous Vehicle” community.

Ford on Jan. 22 announced it will team with MIT and Stanford University to do research on automated driving technologies. Shown is a Ford Fusion Hybrid automated research vehicle.
SAE IS FIRST FOREIGN ENTERPRISE MEMBER OF SHANGHAI FEDERATION OF ECONOMIC ORGANIZATIONS

SAE International's China Office has become the first foreign enterprise member of the Shanghai Federation of Economic Organizations (SFEO), which includes 184 Shanghai industrial associations and 170 member enterprises.

On February 19th, Gary Schkade, General Manager of SAE International's China Office met with Chen Zhenhao, Vice President of SFEO. They discussed further cooperation and exchanges for better interaction with the automotive, aerospace and transportation industries in Shanghai. The SFEO hopes to help the SAE International China Office establish communication channels to Shanghai Municipal Government.

“SAE International welcomes this tremendous opportunity to join SFEO,” Schkade said. “We look forward to working with local enterprises and helping them to be more successful in terms of standards, technical conferences and training, technology and business exchange.”

SAE STANDARDS ON CRASH TEST DUMMYs ACKNOWLEDGED BY NHTSA

The work of SAE’s standards development committees was acknowledged in late 2013 in the National Highway Traffic Safety Administration’s (NHTSA) Notice of Proposed Rulemaking (NPRM) document “Anthropomorphic Test Devices: Q3s-3-Year-Old Child Side Impact Test Dummy, Incorporation by Reference.”

The NHTSA NPRM acknowledged SAE’s work in developing the methods used to scale biomechanical response corridors from the mid-size adult male to the three-year-old child dummy.

“SAE J211-1: Instrumentation for Impact Test – Part 1 – Electronic Instrumentation” is referenced in the NHTSA document. A revised version of this standard was issued by the Safety Test Instrumentation Standards Committee in March.

NHTSA will soon be issuing a proposal to amend Federal Motor Vehicle Safety Standard No. 212, “Child Restraint Systems” to adopt side impact protection requirements for child restraints. The agency plans to use the Q3 dummy to test child restraint systems to new side impact performance requirements.

Annette Irwin, GM Technical Fellow and Co-chair of the SAE Occupant Protection and Biomechanics Steering Committee and Chair of the SAE Dummy Testing and Equipment Committee, explained that, after the development of the Hybrid III Male Crash Test Dummy by GM, SAE’s Human Biomechanics and Simulation Standards Committee (plus Task Forces under that committee) undertook work to scale other dummies of different sizes. Dummies of average children of different ages were made in order to evaluate, for example, that the chest of the dummy responds correctly during tests. This important scaling work is what was acknowledged by NHTSA.

SAE INTERNATIONAL

FOR ON- AND OFF-ROAD GLOBAL, HARMONIZED STANDARDS SOLUTIONS, ALL ROADS LEAD TO SAE

Since 1905, SAE International has been providing the common engineering requirements for new mobility products, advanced technologies, and applications. We are uniquely positioned to provide innovative, first-to-market standards solutions to the global on- and off-road industries and their engineering challenges.

For automotive vehicles, SAE plays the central role in developing essential, consensus-based standards in such critical areas as emissions and safety to meet the most stringent regulations around the world. As the recognized global center of expertise on Commercial Vehicle Construction, Agricultural, and Off-Road equipment/machinery, our standards are readily adopted by ANSI and ISO for implementation on an international level.

Recognized as an international Standards Development organization as defined by the World Trade Organization, SAE offers a full suite of standards development capabilities—committee or consortium administration, cooperative research, and database development—providing industry, companies, and individuals with extensive opportunities to participate, influence, grow, and prosper.

www.sae.org
NHTSA ANNOUNCES STEPS TO ENABLE VEHICLE-TO-VEHICLE TECHNOLOGY FOR LIGHT VEHICLES

In February, SAE International’s technical expert community welcomed the announcement by the National Highway Traffic Safety Administration (NHTSA) that it will begin taking steps to enable vehicle-to-vehicle (V2V) communication technology for light vehicles.

SAE International has worked closely with government and global industry in the development of vehicle communication specifications for more than 20 years resulting in the publication of multiple standards and recommended practices.

A new version of the SAE International standard, “J2735: Dedicated Short Range Communications (DSRC) Message Set Dictionary”, is being finalized to support the three-region (USA, Europe, Japan) common message format effort. This will be followed by “SAE J2945: Dedicated Short Range Communication (DSRC) Minimum Performance Requirements.”

“The announcement by NHTSA provides a clear path for the mobility industry to follow and creates opportunities for many players to innovate, said Jack Pokrzywa, Manager, SAE International Global Ground Vehicle Standards. "To be efficient, safe and cost effective this approach requires a solid foundation, namely standards. We call on the technical experts to participate in SAE standards development to create the future of connected mobility.”

ACCEPTANCE OF J2807 GAINS MEDIA NOTICE

In February, Automotive News and Automobile magazine reported that Ford, General Motors and Chrysler will adopt J2807, SAE’s standard for light-duty pickup tow ratings.

Both publications noted that Ford will adopt the standard for the 2015 Ford F-150, and Automotive News quoted Ford spokesman Mike Levine as saying “as a founding member of the SAE trailer towing committee, we will meet SAE trailer towing standards.”

General Motors and Chrysler will also adopt J2807 for its 2015 model year pickups including the Ram 1500 and Chevrolet Silverado. Toyota had previously adopted the standard for its 2011 model-year pickups, and Nissan told Automotive News that it will adopt the standard on vehicles when they are redesigned (it did so on the 2013 Pathfinder).

“SAE J2807: Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating,” developed by the Tow Vehicle Trailer Rating Committee, establishes minimum performance criteria at gross combination weight rating (GCWR) and calculation methodology to determine tow vehicle trailer rating for passenger cars, multipurpose passenger vehicles and light trucks up to 19,500 lb. GCWR (Class 5).

The standard provides equations to determine TWR (trailer weight rating) from GCWR in conjunction with other vehicle ratings and defined vehicle weight conditions and dimensions. Automobile's Joseph Capparella wrote that “buyers will now be able to compare light-duty truck tow ratings on an even playing field, as opposed to before when each manufacturer followed their own standards for tow ratings.”
TWO NEW STANDARDS HELP HARMONIZE HYDROGEN FUELING ACROSS THE GLOBE

To support the impending roll-out of hydrogen fueling infrastructure and Fuel Cell Electric Vehicles (FCEV), SAE International’s Fuel Cell Standards Taskforce has completed two technical standards: “J2601: Fueling Protocols for Light Duty Gaseous Hydrogen Surface Vehicles” and “J2799: Hydrogen Surface Vehicle to Station Hardware and Software.”

The standards have been created to harmonize hydrogen fueling worldwide for both 35MPa and 70MPa.

J2601 defines parameters for a hydrogen fueling experience similar to conventional fueling and is considered one of the key standards required for the commercialization of fuel cell vehicles and hydrogen stations. This standard enables safe, full hydrogen fast-fueling (3-5 minutes) for all light duty FCEVs, including models with a range of 300 or more miles (500km+). Obtaining extended driving ranges with hydrogen fueling is accomplished by compressing hydrogen to 70MPa (or H70). J2601 has a non-standard appendix describing the MC Default Fill Protocol. This development protocol is currently being tested in the field and may be included in future updates to the standard.

J2799 standardizes wireless communications between the FCEV and the hydrogen station. The advantage of using this optional communications standard, when coupled with J2601 fueling, is that the state of charge can be further improved to 95-100% SOC allowing for slightly more driving range than without communications.

NEW RECOMMENDED PRACTICE FOR DOCUMENTING GROUND VEHICLE SYSTEM SIMULATION

A new standard, “J2998: Model Description Documentation Recommended Practice for Ground Vehicle System and Subsystem Simulation,” was issued by the SAE Dynamical Modeling and Simulation Committee in January.

This Recommended Practice defines the recommended information content to be included for documenting dynamical models used for simulation of ground vehicle systems. It describes the information that should be compiled to describe a model for the following user applications or use cases:

• Exchange, promotion, and selection
• Creation requests
• Development process management
• Compatibility evaluation
• Testing-in-the-loop simulations with hardware and/or software
• Simulation applications
• Development and maintenance

For each use case, a Model Description Documentation (MDD) template is provided in the appendices to facilitate model documentation. An example of a completed model documentation template is also provided in the appendices.

STANDARDS CONSORTIUM ADMINISTRATION

With over a century of experience providing the common engineering requirements for new mobility vehicles, SAE can be a key component in developing any consortium-based activity, providing the expertise and worldwide technological and human resources to help you turn your vision into a successful operating reality.

Each client maintains its desired degree of autonomy, flexibility, and control. Client/project-tailored services include:

• A legal framework
• Fiscal oversight
• Policy and procedure development
• Publishing and distribution services
• Marketing and public relations activities
THE VALUE PROPOSITION OF A BATTERY PACK

By Bob Galyen, SAE International Battery Steering Committee Chairman

Adapted from an article in Automotive Engineering Online

Sometimes we techies need to step out of our labs and offices and take our ideas to the average consumer. I want to tackle something the public knows little about: the value proposition of a battery pack.

I am not trying to achieve a technical description, but a layman’s understanding. Many people are skeptical of electrified vehicles (EVs), and specifically the battery pack, because it is the most expensive part of the auto. If we can help the industry build an explanation that is more accessible to society, the industry (and the world) will benefit.

The primary component of a battery pack system is an electrochemical cell—it’s all about the chemistry. The cell is a combination of chemicals that permit the storage of energy in the form of chemical compounds. These cells require mechanical support via packaging in the form of frames and fasteners. They also need electrical circuits for proper charging and discharging that require control software. This includes both low-voltage communications and charge control, along with the high voltage and discharge control.

Transportation application manufacturers are very respectful of the SAE International Standards Steering Committee priority list: 1) Safety, 2) Performance, 3) Life, and 4) Cost. There is a clear focus on the ultimate safety of battery systems for EVs. After safety, the most important factors are energy and power dependent on application requirements. Clearly, an EV is sensitive to volume and mass considerations, as vehicle design is limited by physical space and weight. Life and cost play key roles in the calculation of the value proposition.

Automotive manufacturers work very hard to design vehicles to match a particular demographic group that will buy EVs. These consumers have various driving behaviors, from mild (the grandma that drives like a turtle to the grocery store twice a week) to severe (the daily long-haul commuter who speeds through traffic). The combination of Father Time (calendar life) along with the behavior of the driver (which the industry calls duty cycle/usage life) determines the rate at which the battery pack system deteriorates in energy-storage capacity.

In the auto industry, we typically express this “life expectancy” in mileage (usage life) or months of service (calendar life). These criteria are typically the matrix we use in warranty policy and enforcement. These factors hold true in all forms of EVs, which we call xEV and include plug-in hybrids, regular hybrids, and pure electrics.

At this point in time, the requirements for repurposing are not well defined (in most cases). There are so many applications being considered for repurposed batteries that there is a plethora of requirements to be documented. Many of these are electrical requirements similar to those from the National Electric Code from the U.S. government. Although the SAE International battery standards committees do not write for governmental rulemaking, the standards they create are largely adopted and enforced as guidelines for good practice.

Most of these applications have a more narrow range of performance than an automotive application, as the requirements for power and energy for repurposed products are defined within a fairly narrow band. Consequently, the repurposed product design is typically not as stringent as an automotive application. Safety is still the No. 1 consideration, but power and energy are achieved by proper series/parallel cell configurations, as volume and process are significantly less important in most repurposed products.

For example, a power application may have more cells in series to achieve higher voltages and an energy application may have more cells in parallel to provide additional capacity. Since the repurposed application is probably stationary, the need for energy/power density is less severe than in automotive usage.

Most secondary applications for repurposed EV batteries are for energy-storage systems, including renewable energy...
storage, load leveling, and frequency regulation. These can be applied to grid applications including everything from “behind the meter” application for residential use (low kW·h) to micro-grid applications (kW·h to MW·h) and even large utility suppliers (MW·h to GW·h). The definitions of each are just too broad a topic to try to cover here. Suffice it to say these applications cover from tiny to enormous in the marketplace.

In China, Amperex Technology Ltd. is working directly with one major OEM on repurposed batteries from automobiles with installations in Asia, North America, and Europe. These installations are simple solar renewable energy generation stored in repurposed battery systems.

The recycler is the end of one food chain...and the creator of a new one. The point at which the recycler receives the battery pack is when it has the least value from an application standpoint. The value proposition is to convert spent product back to raw materials for reuse. For example, in today’s lead-acid world, 99% of battery products are recyclable. About the only thing that isn’t recycled are fastener features in the terminal area.

Battery packs represent a different opportunity in that we are recycling large systems that can include steel and aluminum frames, plastic dielectric materials, high- and low-voltage wiring systems, and a whole variety of fasteners. And, of course, there are the cells, which have the highest value of all within the pack. The reason for the value is the metals within the cell structure. As an example, the lithium cells usually have both copper and aluminum current collectors, and the active materials may contain additional exotic metals that carry a high price tag.

Battery pack systems may have up to a 10-year life in an auto. Some systems could even have a 10-plus year life in a secondary application as an ESS (energy-storage device). Clearly, none of us knows what the time-value of money will be over a 10- to 20-year period. And the value of these battery pack systems is dependent upon the energy storage and recovery of energy during the total useful life of the systems.

We also do not know the exact application usage profiles to calculate true value. Today, valuation is merely an estimate based on best knowledge. New technologies focused predominately on lithium cathode/anode and electrolyte systems will play a key role, as we know that every battery manufacturer on the planet is running to the finish line to improve energy, power, and life span while reducing cost.

It is my hope that some young genius will emerge from the toils of university life to create the next energy-storage invention that will achieve the goals of the energy-storage revolution.

For more information or if you would like to join the task force, contact Pat Ebejer at pebejer@sae.org.
GROUP SEeks SAE EXPERTISE TO KEEP HISTORIC VEHICLES HUMMING

From an article in Automotive Engineering Online

The SAE International Motor Vehicle Council (MVC) has indicated support for a proposal by the Historic Vehicle Association (HVA) to cooperate in the development and publication of best-practice guidelines for preservation, restoration, and responsible use of historic vehicles.

Mark Gessler, President of the HVA and Vice President of the Fédération Internationale des Véhicules Anciens, formally proposed the idea to the SAE MVC on April 10 in Detroit as part of the SAE 2014 World Congress. In addition, he said, HVA is exploring the potential for collaboration with the SAE Mobility History Committee on SAE archives and heritage documentation efforts.

The U.S.-based organization is the largest one in the world, with over 360,000 members. It claims there are about 2.75 million historic-vehicle owners in the U.S. and Canada, with annual mean spending per owner of about $12,500.

The group’s request of SAE follows a successful collaboration with the U.S. Department of the Interior for inclusion of historic automobiles in the agency’s Heritage Documentation Program.

“It has been nearly 120 years since the first automobiles were produced in the U.S.,” Gessler said in a Jan. 22 press release identifying the first automobile (a 1964 Shelby Cobra Daytona Coupe) to be recorded under the DOI’s Heritage Documentation Program for automobiles. “During that time, we have implemented national programs to recognize our historic buildings, airplanes, spacecraft, and vessels—but not our historic automobiles. Through our work, we hope to celebrate the contribution of the industry’s pioneers, the vehicles they produced, and the preservation efforts necessary to ensure future generations appreciate the unique role of the automobile in shaping America.”

Update: At a May 2014 meeting, the SAE Motor Vehicle Council approved the creation of a strategic partnership with the Historical Vehicle Society.

DELIVERY OPTIONS FOR SAE TECHNICAL STANDARDS

The more than 11,000 standards in the SAE database now include historical standards, and can be accessed through one of the targeted solutions below:

• **SAE Digital Library** is the industry’s most comprehensive resource, encompassing 175,000+ technical papers, standards, and related publications from SAE and other renowned organizations. A customizable corporate solution! [digitallibrary.sae.org](http://digitallibrary.sae.org)

• **Global Technology Libraries** are web databases that aggregate by topic the most current information on technologies, trends, and research; includes information from SAE and other publishers; update regularly with daily feeds and various subscriptions available. [saeqtl.org](http://saeqtl.org)

• **SAE Subscriptions** are online portfolios of SAE standards or technical papers focused on targeted technologies and industries. [subscriptions.sae.org](http://subscriptions.sae.org)

• **SAE JPaks** let you decide how many ground vehicle standards you need and when you need them. Choose from packages that provide up to 10, 15, 25, 35, or 50 downloads per year. [sae.org/jpaks](http://sae.org/jpaks)
The Technical Standards Board Outstanding Achievement Award recognizes individuals for outstanding service in the technical committee activities of SAE International. This includes valuable contributions to the work of SAE International technical committees, unusual leadership in the activities of an SAE International technical committee, significant contributions as a representative of SAE International to the accomplishments of technical committees of other organizations or of government agencies, and outstanding contributions to SAE International technical committee work in the form of research, test methods and procedures, and/or development of standards.

Michael Lyons, Technical Lead, Caterpillar, Inc.

Lyons has worked for Caterpillar for 27 years and has led the Caterpillars data link architecture and protocol development for the past 18 years. His previous work at Caterpillar includes development of electronic ignition control systems for Caterpillar natural gas engines. Lyons has been actively involved with the Truck and Bus Controls and Communications Network Committee and the development of the SAE J1939 standards since 1999. He is currently serving as the Chair of the SAE Truck and Bus Controls and Communications Network and has been since 2010. He has a Bachelor in Science degree in electrical engineering from the University of Missouri at Rolla.

Chuck Trueman, Engineering Manager, PACCAR Technical Center

Trueman, who has been with PACCAR for 29 years, currently manages the PACCAR Technical Center Vehicle Dynamics Group, supporting Kenworth and Peterbilt product validation and compliance certification in the areas of suspension, chassis, ride, handling, steering, and stopping performance. In addition to active membership in the SAE Brake and Stability Control committees, he authored SAE J1626 (“Braking and Stability Control Performance Test Procedures for Air-brake-equipped Trucks”) and co-authored SAE paper 952663, “AAMA Heavy Truck Brake Tire Test.”

Trueman served for many years as Chairman of the PACCAR Global Brake Expertise Group and the Truck and Engine Manufacturer’s Association Brake Committee. He has been a member of SAE International since 1986, leading the Brake Systems Committee since 1996. He was recently assigned to lead the Brake and Stability Control Steering Committee with a seat on the Truck & Bus Council.

Curtis Vincent, Senior Project Manager, General Motors

Curtis has worked at General Motors for more than 31 years in the HVAC and Powertrain Cooling field. He and his team were responsible for several Cadillac cooling and thermal systems over the years. In the past several years he has worked on several SAE International technical standards for the new refrigerant R-1234yf. Most recently, Curtis has served as chairman of the latest SAE International Cooperative Research Project on the new refrigerant. He holds a BSME from Kettering University (former GMI) and an MBA from The University of Michigan - Dearborn.

Lisa Christine Uhl, Manager, Hydraulic Brakes and Accessory Systems, Mechatronics Engineering, Daimler Trucks North America

Uhl has been with Daimler (formerly Freightliner) for 30 years. She graduated Maxima Cum Laude with a BSME degree from the Multnomah School of Engineering, University of Portland and passed the Professional Engineering Exam in the State of Oregon. She is active on a number of SAE Truck & Bus Standards Committees, including the Corrosion Committee, and is current Chair of the Hydraulic Brake Committee.

Uhl started her career at Daimler right out of college in the Custom Engineering Department. She was responsible for many chassis systems including brakes, axles and drivelines. She developed numerous artificial intelligence programs to optimize drivelines, vehicle specification and parts generation. She managed the Chassis group in Custom Engineering, then joined a Mercedes World Truck development team in the mid 1990’s. When this development moved to Brazil, Uhl remained in Portland and joined the Brake and Safety Systems Engineering group, when she became Manager in 2007.

Eugene Williams, Senior Development Engineer (retired), Horton, Inc.

Williams recently retired as Senior Development Engineer from Horton Inc. He had also designed engine cooling fans since 1986 for Engineered Cooling Systems, Schwitzer, Kysor, and Borg Warner. Prior to 1986 he had worked in the grain drying field for Beard Industries. He has been an SAE International member since 1999 and a member of the SAE Cooling Systems Standards Committee since 2001. Williams is a member of the American Society of Agricultural and Biological Engineers, and is a graduate of Purdue University with both BS and MS degrees in Engineering.
Gregory V. Gillham, Manager, Detroit Diesel Corp.

Gillham has worked at Detroit Diesel for nearly 35 years. During that time, he has been involved in standards development for heavy-duty communications data networks. He helped to develop SAE International standard J1587, the first low speed network, serving as chair for a period. He has also participated in SAE J1939 development from its beginning in the early 1990’s, now serving as chair of the application layer task force and as the SAE J1939 database administrator.

Gillham has been awarded TSB Outstanding Achievement Awards in 1998 and in 2009. He has presented at both SAE International and TMC symposiums. At Detroit Diesel, he is currently manager of embedded software development.

He has been involved in all aspects of electronic controls and on-board diagnostics, participating in the development of the first electronically controlled engine system in 1985 (DDEC I). Gillham has a BS in engineering from General Motors Institute (now Kettering University) and a MS in engineering from University of Michigan.

Tim Duncan, Vice President, Link Engineering Company

Duncan is the Vice President of Test Operations of Link Engineering Company. At Link, he oversees testing facilities globally, with a focus on brake dynamometer and full vehicle brake testing. His career began in 1980 with Lucas Girling, where he gained valuable experience in automotive and commercial vehicle brake testing. He remained at Lucas until 1994 when he joined Link Engineering.

Duncan is active in various brake and friction material committees and related subcommittees, including: Executive Director of Brake Standards Association; Chairman of the SAE Brake Dynamometer Standards Committee; Member of the Brake Manufacturers Council (BMC); Vice Chairman of the SAE Recommended Practice 628 Aftermarket Brake Lining Qualifications; Chairman of Friction Material Technical Committee & Brake Performance Committee Friction Material Standards Institute (FMSI); Board Member of Link European Automotive Technology


Deering has more than 34 of automotive experience in a variety of engineering, research and managerial positions. He holds several U.S. patents and has authored a number of technical publications covering various aspects of active safety system performance. His primary focus for the last 20 years has been collision avoidance system design, development and testing based on detailed understanding of motor vehicle crash causation, including the role of driver behavior and driver interaction with advanced technologies. His current business provides engineering consulting supporting to light vehicle manufacturers and suppliers in the areas of collision avoidance systems, driver behavior and active safety technology policy.

An SAE International member since 1979, Deering has participated in a variety of safety related activities, most recently serving as the chairman of the Vehicle Safety Systems Group. He previously received the SAE Delco Electronics Intelligent Transportation Systems Award (2006) for his role in the "Crash Avoidance Metrics Partnership - Intelligent Vehicle Initiative Program". He is also a member of the Technical Coordinating Committee on Safety Research for the Transportation Research Board’s Strategic Highway Research Program (SHRP2).

Deering received a Bachelor of Science in Automotive Engineering, summa cum laude, from Western Michigan University (1979), a Master of Science in Mechanical Engineering from the University of Michigan (1983), and completed the Kellogg Business School Executive Development Program at Northwestern University (1996).

SAE: A GLOBAL PARTNER IN STANDARDS DEVELOPMENT

In addition to the maintenance and development of its family of technical standards, SAE International is also an active partner with other standards development organizations, government agencies, and regulatory bodies to support the newest, most robust, and comprehensive standards products for a changing global marketplace.

- US Department of Transportation
- Society of Automotive Engineers of Japan (JSAE)
- German Electrical and Electronic Manufacturers Association (ZVEI)
- US Federal Highway Administration
- China Automotive Technology & Research Center (CATARC)
- National Highway Traffic Safety Administration
- Korean Agency for Technology and Standards (KATS)
- US Department of Energy
- Japan Automobile Research Institute (JARI)
- US Environmental Protection Agency
- Brasilian National Standards Organization (ABNT)
- American National Standards Institute (ANSI)
- Automotive Electronics Council (AEC)
- International Organization for Standardization (ISO); US representative
- The European Telecommunications Standards Institute (ETSI)
New CoMMiTTee ChairS or Co-ChairS

Newly-formed committees
- FHWA – ITS Standards Project Team
- J1939 Functional Safety Task Force
- J2442 TASK FORCE  International Cooperation Committee
  Command and Control Priority - Accel Decel Task Force

New chairs on newly-formed committees
- **Joerg Bakker**, Daimler AG: Chair, Cross-cutting Issues Standards Committee
- **Darrel Christian**, Titanx Engine Cooling: Chair, J1726 Crg Air Cooler Internal Clean, Leakage, Nomenclature
- **Craig Fanning**, Elite Electronic Engineering Inc.: Chair, CISPR D USAG
- **Carol Flannagan**, UMTRI: Co-Chair, Data Analysis Standards Committee
- **Feng Guo**, Virginia Tech: Co-Chair, Data Analysis Standards Committee
- **Michael Kocevar**, JTEKT Corp.: Vice-Chair, Drivetrain Standards Committee
- **Tyler Kress**, Best Engineering LLC: Co-Chair, Data Collection and Archiving Standards Committee

**Michael Larsen**, General Motors Co.: Chair, J3069 Adaptive High Beam Task Force

**Rodney McGee**, University of Delaware: Chair, J3068 EV Power Transfer System Task Force

**Tim Meckstroth**, Dexter Axle Co.: Chair, Trailer Brake Standard Task Force

**David Plant**, D.P. Plant & Associates: Co-Chair, Data Collection and Archiving Standards Committee

**Ronan Harkin**, Link Engineering: Chair, China Brake Test Procedure Committee

**Paul Johnston**, Chair, Truck and Bus Natural Gas Task Force

**Christopher Morgan**, Autoliv: Chair, Rear Seat Infant Restraints Interaction with Children

**Natalie Wienckowski**, General Motors LLC: Chair, CISPR D USAG, Electromagnetic Compatibility Standards

**Gangolf Feiter**, Concepts and Services Consulting: Chair, CXPI - Clock Extension Peripheral Interface

**Arch T. Colwell Cooperative Engineering Medal**
Nomination Deadline: June 1

This award recognizes a unique and outstanding contribution over a period of time to the work of the technical committees under the SAE Technical Standards Board in developing standards, specifications, technical reports, and data through cooperative research. The award is intended to stimulate technical committee members to greater accomplishments and the realization of satisfaction that comes from sharing their expertise.

**SAE/InterRegs Standards and Regulations Award**
Nomination Deadline: September 30

This award recognizes a practicing engineer who has provided significant contributions to standards, regulations or conformity assessment systems for improved safety or reduced emissions in a ground vehicle mobility product. The individual can work on the standards/regulation language and/or on product to comply with the standards/regulation. The award was established in 2000 by InterRegs Ltd. as a way to reward significant participation in standards, regulations or conformity assessment systems by engineers and to encourage increased participation in the future.

**Welcome, New Chairs! Thank You And Know That Your Volunteer Efforts Are Greatly Appreciated!**

**An Economical Pathway For Joint Venture Research:**
**The Cooperative Research Program of SAE**

Cooperative research ventures serve to bring more minds to the challenges and issues faced by industry. The result is a more robust project than each participating organization could complete independently. The pooling of financial resources also affords each participant more efficient use of their research budgets and eliminates duplication of efforts. Whether moving forward on the development of fuel cell standards...researching alternative refrigerants...or developing a database of human body measurements to foster ergonomic designs, SAE's Cooperative Research Program can assist your company in its collaborative research needs.

To learn more contact Gary Pollak, Program Manager +1.724.772.7196; gary@sae.org

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**Nominate a Deserving Individual For an SAE Award**

As our most valued resource, those engaged in SAE’s mission are best qualified to identify outstanding achievements made by their peers. Look closely at those with whom you work. Honor their excellence and celebrate their dedication and consider nominating them for an SAE award related to the work of the SAE Standards Development process. Submit nominations at www.sae.org/awards. Need assistance with an award nomination? Contact the SAE Awards staff at awards@sae.org, 1-877-606-7323 (U.S. and Canada only) or 1-724-776-4970 (outside U.S. and Canada).
EXPERTS SOUGHT

Hybrid
The existing SAE conductive charging standards do not allow for vehicles to utilize three-phase AC power. Three-phase power transfer is targeted at commercial and industrial locations or other areas where such power is available. Grid stability is enhanced by presenting a symmetric three phase load, especially at high power levels.

A new SAE Hybrid Task Force will address this through document J3068, “Electric Vehicle Power Transfer System Using a Polyphase-capable Coupler.” This standard will cover the general physical, electrical, functional, testing, and performance requirements for conductive power transfer to an electric vehicle using a coupler capable of, but not limited to, transferring three-phase AC power. It will define a conductive power transfer method including the digital communication system and, it will also cover the functional and dimensional requirements for the vehicle inlet, supply equipment outlet, and mating housings and contacts.

Those interested in being involved in the development of this standard are asked to contact PEbejer@sae.org or volunteer their expertise at http://www.sae.org/standardsdev/callforexperts.htm

ECU
A document covering the guidelines for SAE implementations based on the JASO Clock Extension Peripheral Interface (CXPI) protocol is being developed.

Implementation guidelines stated in this document will provide a minimum standard level of performance to which all compatible ECUs and media are to be designed, assuring full serial data communication among all connected devices regardless of supplier.

The goal of this document is to enable the interoperability and interchangeability of CXPI devices within a network. It is to be referenced by the particular vehicle OEM component technical specification that describes any given ECU in which the single wire data link controller and physical layer interface is located.

Those interested in being involved in the development of this standard are asked to contact lfeather@sae.org or volunteer their expertise at http://www.sae.org/standardsdev/callforexperts.htm

Participants sought include, but are not limited to, ECU suppliers, CXPI controller suppliers, CXPI transceiver suppliers, component release engineers, and vehicle system engineers.

CONNECTED CARS AND SECURITY CHALLENGES -- VIDEO

Andreas Mai, Director Product Management, Smart Connected Vehicles, Cisco Systems Inc., discusses the “Connected Car & Cybersecurity” while a panelist at an SAE-AVL Technology Leadership Center session during the SAE 2014 World Congress this past April.


For more on connected car and security challenges see SAE Magazines Online.

http://articles.sae.org/13081/

SAE TO PARTICIPATE IN UPCOMING AUVDI/TRB AUTOMATED VEHICLE SYMPOSIUM

SAE International will be a supporting organization at the AUVDI/TRB Automated Vehicle Symposium, July 15-17, 2014 in San Francisco, CA, USA. Event attendees will have the opportunity to listen to global leaders, learn about emerging technologies, ride in vehicle demonstrations, network with colleagues, and explore the impact of automation. During a breakout session on “Operational Requirements for Vehicle-Road Automation Systems and Components” on Wednesday afternoon, SAE will share developments on its program activities as they relate to ANSIL and test systems. A special open meeting of the SAE On-Road Automated Vehicle standards committee (ORAV) to discuss standards and best practices for automated vehicles on public roads is planned for the afternoon of July 14. Everyone attending the symposium is welcome to join the discussions.
The following individuals have served as active committee members and have dedicated their time and talent in guiding the development of standards documents from the preparation of all drafts through balloting and publication.

**THANK YOU.**

Jeffrey Bauer, John Deere Dubuque Works  
Steve Neva, Doosan Infracore Co Ltd  
Daniel Moss, AEM  
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Guy Hetu, Bombardier Recreational Product Inc.  
Jon Walter, Polaris Industries Inc  
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