

# IEEE-SA Ethernet & IP @ Automotive Technology Day Industry Connections Activity Initiation Document (ICAID)

Version: 5.0, 3 May 2019

IC13-004-05 Approved by the IEEE-SASB 11 June 2019

## Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- **Shaded Text** indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: [industryconnections@ieee.org](mailto:industryconnections@ieee.org).
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

## 1. Contact

Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person's information may also be provided.

**Name:** James Lawlis

**Email Address:** [j.lawlis@ford.com](mailto:j.lawlis@ford.com)

**Employer:** Ford Motor Company

**Affiliation:**

## 2. Type of Activity

Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Entity-based event administration; attendance open to the public.

The activity focuses on Ethernet & IP standards and interoperability in the automotive environment. The activity manages the annual [Ethernet & IP @ Automotive Technology Day](#) (EIP@ATD). EIP@ATD is in its 9<sup>th</sup> year overall and under the IEEE Standards Association since 2014.

The next EIP@ATD is 24-25 September at the Crowne Plaza Detroit Downtown Riverfront Hotel, Detroit, MI.

### **3. Purpose**

#### **3.1. Motivation and Goal**

Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

The automotive industry has held eight previous Ethernet & IP @ Automotive Technology Days, the first was hosted by BMW AG in 2011, the 2014 event was the first held under this IEEE-SA Industry Connections Activity. Topics covered at these technology days include IEEE802.3cg, IEEE802.3ch, IEEE802.3bp (1000BASE-T1), IEEE802.3bw (100BASE-T1), IEEE802.1 AVB, TSN, AUTOSAR, GENIVI, Automotive Applications, Wake Up Concepts, EMC, Connectors, Cables, ISO26262, Ethernet based Service Oriented Architectures, Cloud Connectivity etc.

Keynote speakers, technologists and subject matter experts are invited from the

Car Makers (OEMs):

- Audi
- BMW
- Daimler
- FCA
- Ford
- GM
- Hyundai
- Tesla
- Toyota
- VW
- ...

Tier1s:

- Bosch
- Continental
- Denso
- Harman
- ...

Tier2s (Semiconductor)

- Broadcom
- Marvell
- NXP
- Renesas
- RealTek
- TI
- Vitesse
- ...

Tier2s (Tools):

- Elektrobit
- ETAS

- LeCroy
- Tektronix
- Vector
- TT-Tech
- ...

Tier2s (Connector & Cables):

- Amphenol
- Aptiv
- Comscope
- Leoni
- Molex
- Rosenberger
- TE Connectivity
- ...

Academia:

- FH Zwickau
- UNH
- FH Zürich
- TU Ilmenau
- Stanford University
- ...

Industry consortia:

- AVnu Alliance
- AUTOSAR Alliance
- Genivi Alliance
- OPEN Alliance
- ...

Especially those involved in interoperability and standard activities as well as strategists for automotive communication technologies. These events are open to anyone interested in the next generation automotive communication technology.

The use of Ethernet and IP has grown in the automotive industry and standards are being developed within IEEE: IEEE P802.3cg, IEEE P802.3ch, IEEE 802.1 AVB, IEEE 802.1 TSN, IEEE 1722a.

There is therefore a stronger need in the market place to promote the standards under development and their use to address interoperability issues.

The IEEE-SA Ethernet & IP @ Automotive Technology Day focuses on addressing this need by continuing, restructuring and expanding the scope of the current event initially organized by industry.

The overall purpose of the event is to allow the industry to assess the maturity of the technology and to promote the adoption of new standards in the automotive market.

### **3.2. Related Work**

Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

Embedded World, CAN User Conference, CAN FD Technology Day, FlexRay Product Day, AVnu TSNA conference, Automotive Ethernet Congress

Besides Automotive Ethernet Congress, none of the above conferences or events focuses on the deployment of Ethernet & IP in the automotive environment. In contrast to the IEEE-SA Ethernet & IP @ Automotive Technology Day, the Automotive Ethernet Congress has been tied to the same location in Munich, Germany since its start. Additionally, Automotive Ethernet Congress is usually in February whereas Ethernet & IP @ Automotive Technology Day is around September-November.

### **3.3. Potential Markets Served**

Indicate the main beneficiaries of this work, and what the potential impact might be.

As mentioned above, industry has hosted this event in Germany in the initial three years. But Ethernet is widely used all over the world. North American and Asian car manufacturers are very active in the according standardization groups. The 2014 event was organized in North America, the 2015 event was held in Japan, the 2016 event was held in France, the 2017 event will be held in Silicon Valley, USA.

### **3.4. How will the Activity benefit the IEEE?**

This Activity promotes the IEEE 802.3 Ethernet standard and provides revenue to the IEEE. Since Ethernet is an IEEE standard, expanding the use of Ethernet increases the market space for IEEE.

## **4. Estimated Timeframe**

Indicate approximately how long you expect this activity might take to achieve its proposed results (e.g., number of weeks/months/years). Also indicate when you expect this activity to be reviewed by ICCOM for completion or possible extension (maximum two years).

### **Expected Completion/Review Date:**

The 2019 event will be the 9<sup>th</sup> annual event and the fifth as an IC activity.

This is the third request to extend the ICAID. It is expected that the IEEE-SA will continue to sponsor the annual conference as long as the event continues to attract exhibitors, presenters and attendees.

## **5. Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents, proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

An annual IEEE-SA Ethernet & IP @ Automotive Technology Day, changing venue worldwide.

The papers presented during the conference will be available for reference by implementers for many years to come.

## **6. Funding Requirements**

Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICom.

Funding for the annual Ethernet & IP @ Automotive Technology Day is provided by registration fees, exhibition fees, and financial supporters, with the IEEE-SA making up any shortfall.

## **7. Management and Procedures**

### **7.1. IEEE Sponsoring Committee**

Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

**Has an IEEE sponsoring committee agreed to oversee this activity?:**

No

If yes, indicate the sponsoring committee's name and its chair's contact information, and skip the remaining parts of this section (skip 7.2 and 7.3, below).

**Sponsoring Committee Name:** Committee Name

**Chair's Name:** Full Name

**Chair's Email Address:** who@where

**Chair's Phone:** Number, including country code

Additional sponsoring committee information, if any.

### **7.2. Activity Management**

If no IEEE sponsoring committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

A Steering Committee, consisting of representatives from the industry and IEEE-SA, organizes the event. The Steering Committee appoints a Program Committee for each annual event. The Program Committee oversees the submission and review of presentations and organizes the program agenda for a specific EIP@ATD.

### **7.3. Procedures**

If no IEEE sponsoring committee has been identified in 7.1 above, indicate what documented procedures will be used to guide the initial operations of this activity (e.g., the *Industry Connections Activity Baseline Procedures*).

IEEE-SA Industry Connections Committee Operations Manual, approved by the IEEE-SA Standards Board on January 2014.

IEEE-SA Ethernet & IP @ Automotive Technology Day Membership Criteria Guideline, Version 1.0, 07 November 2013.

IEEE-SA Ethernet & IP @ Automotive Technology Day Industry Connections Activity Policies and Procedures (Entity-Based), Version 1.3, 25 November 2013.

## **8. Participants**

### **8.1. Stakeholder Communities**

Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

Representatives of various car manufacturers and companies from automotive electronics, consumer electronics, semiconductor design, semiconductor fabrication, measurement and tools will be interested in (and benefit from) this activity, including standards developers and users at:

- IEEE802.3
- IEEE802.1
- IEEE1722
- AVnu Alliance
- OPEN Alliance
- AUTOSAR Alliance
- JASPAR Alliance
- GENIVI Alliance

### **8.2. Expected Number of Participants**

Indicate the approximate number of entities or individuals expected to be actively involved in this activity.

Steering Committee members: 5-10

Program Committee: 10-20

Event attendees: 300-500

For reference, please note the attendance at the previous Ethernet & IP @ Automotive Technology Days:

2011: 320 – Munich, Germany

2012: 447 – Regensburg, Germany

2013: 522 – Stuttgart, Germany

2014: 515 – Detroit, USA

2015: 576 – Yokohama, Japan

2016: 307 – Paris, France

2017: 313 – San Jose, USA

2018: 311 – London, England

### **8.3. Initial Participants**

Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an entity-based activity: (Example board members, all have not been contacted/confirmed yet)

This Activity has been active since 2013. The current Steering Committee members are:

<b>Entity</b>	<b>Primary Contact</b>	<b>Additional Representatives</b>
James Lawlis	Ford Motor Company	
Robert Bosch GmbH	Damon Martini	
General Motors	Prathap Venugopal	
Continental AG	Daniel Hopf	
Hyundai Motor Company	Jinhwa Yun	
Jaguar Land Rover	Syreeta Bath	
JASPAR	Ryohei Kawabuchi (Mazda)	
Renault	Josef Villanueva	
Fiat Chrysler	Jonathan Kuhn	
IEEE-SA	Joan Woolery	