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

Version: 7.0, 15 May 2023

IC13-004-07 Approved by the CAG 10 July 2023

Instructions

- Instructions on how to fill out this form are shown in red. Please leave the instructions in the final document and simply add the requested information where indicated.
- Spell out each acronym the first time it is used. For example, "United Nations (UN)."
- 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.
- 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: Thomas Hogenmueller@de.bosch.com
Email Address: thomas.hogenmueller@de.bosch.com
Employer: Robert Bosch
Affiliation: Entity Name(s)

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

2. Participation and Voting Model

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 13th year overall and under the IEEE Standards Association since 2014.

The next EIP@ATD is 19-20 September at the Novotel São Paulo Jaragua Conventions

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.

Describe the motivation and goal.
The automotive industry has held ten 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 802.1 TSN, IEEE 802.1DG, IEEE P802.3cy, IEEE P802.3cz, IEEE 802.3da.
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 Previously Published Material
Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

List the previously published material, if any.
Conference presentations from prior years are made available in the IEEE SA IC activity webpage.

3.4 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 was in Silicon Valley, USA, the 2018 event was in London, UK, the 2019 event in Detroit, the 2020 event was virtual, the 2021 event was in Munich, Germany, the 2022 event was in Yokohama, Japan and the 2023 event is planned in São Paulo .

3.5 How will the activity benefit the IEEE, society, or humanity?
Describe how this activity will benefit the IEEE, society, or humanity.

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 to operate to achieve its proposed results (e.g., time to completion of all deliverables).

Expected Completion Date: 06/2025 then auto-renewed after two years.

The 2023 event will be the 13th annual event and the ninth as an IC activity.
This is the fifth 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.

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCom and the responsible committee of the IEEE SA Board of Governors. Should an extension be required, please notify the ICCom Administrator prior to the two-year mark.

5. **Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), 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.

5.1 Open Source Software Development

Indicate whether this IC Activity will develop or incorporate open source software in the deliverables. All contributions of open source software for use in Industry Connections activities shall be accompanied by an approved IEEE Contributor License Agreement (CLA) appropriate for the open source license under which the Work Product will be made available. CLAs, once accepted, are irrevocable. Industry Connections Activities shall comply with the IEEE SA open source policies and procedures and use the IEEE SA open source platform for development of open source software. Information on IEEE SA Open can be found at https://saopen.ieee.org/.

Will the activity develop or incorporate open source software (either normatively or informatively) in the deliverables? No

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 ICCom.

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 Activity Oversight Committee
Indicate whether an IEEE Standards Committee or Standards Development Working Group has agreed to oversee this activity and its procedures.

Has an IEEE Standards Committee or Standards Development Working Group agreed to oversee this activity? No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where

Additional IEEE committee information, if any. Please indicate if you are including a letter of support from the IEEE Committee that will oversee this activity.

IEEE collects personal data on this form, which is made publicly available, to allow communication by materially interested parties and with Activity Oversight Committee and Activity officers who are responsible for IEEE work items.

7.2 Activity Management
If no Activity Oversight 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
Indicate what documented procedures will be used to guide the operations of this activity; either (a) modified baseline *Industry Connections Activity Policies and Procedures* (entity, individual), (b) *Abridged Industry Connections Activity Policies and Procedures* (entity, individual), (c) Standards Committee policies and procedures accepted by the IEEE SA Standards Board, or (d) Working Group policies and procedures accepted by the Working Group's Standards Committee. If option (a) is chosen, then ICCom review and approval of the P&P is required. If option (c) or (d) is chosen, then ICCom approval of the use of the P&P is required.

IEEE-SA Industry Connections Committee Operations Manual, approved by the on February 2023.

IEEE-SA Ethernet & IP @ Automotive Technology Day Membership Criteria Guideline, Version 2.0, 03 February 2023

IEEE-SA Ethernet & IP @ Automotive Technology Day Industry Connections Activity Policies and Procedures (Entity-Based), Version 1.3, approved by the SASB on June 2014.

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 (if entity-based) or individuals (if individual-based) 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
2019: 411 - Detroit, USA
2020: 260 - Virtual
2021:109 - Munich, Germany
2023: 300 - Yokohama, Japan

8.3 Initial Participants
Provide a few 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: **The list shown is the 2023 Steering Committee Members**

Entity Name	Primary Contact Name	Additional Representatives
Robert Bosch	Thomas Hogenmueller	
Continental Automotive	Daniel Hopf	
Ethernovia	Chris Mash	
Intrepid Control Systems	John Simon	
BMW	Kirsten Matheus	
DENSO (JASPAR)	Yasuhiro Kotani	
Ford	Amrit Gopal	
General Motors	Natalie Wienckowski	
Renault	Josetxo Villanueva	
Stellantis	Abedulah Alkhateeb	
Toyota	Hideki Goto	
Volvo	Hoai Hoang Bengtsson	

8.4 Activity Supporter/Partner
Indicate whether an IEEE committee (including IEEE Societies and Technical Councils), other than the Oversight Committee, has agreed to participate or support this activity. Support may include, but is not limited to, financial support, marketing support and other ways to help the Activity complete its deliverables.

Has an IEEE Committee, other than the Oversight Committee, agreed to support this activity? No

If yes, indicate the IEEE committee's name and its chair's contact information.

IEEE Committee Name: Committee Name
Chair's Name: Full Name
Chair's Email Address: who@where

Please indicate if you are including a letter of support from the IEEE Committee.