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

Version: 3.0, 24 March 2015

IC13-004-03 Approved by the IEEE-SASB 11 June 2015

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.
- 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: Hiroyuki Matsumoto
Email Address: Hiroyuki.2.Matsumoto@continental-corporation.com
Phone: +81 45 444 4168
Employer: Continental Automotive Japan K.K.
Affiliation: JASPAR

Name: Yoshihisa Mashita
Email Address: mashita_yoshihisa@tte.toyotsu.net
Phone: +81
Employer: Toyota Tsusho Electronics Corporation
Affiliation: JASPAR

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.
In concept, this activity will be similar to IEEE-SA Standardization and Innovation in Information Technology, focused on Standards in ICT, and IEEE-SA Symposium on EDA Interoperability, focused on EDA standards and interoperability, with a focus on Ethernet & IP standards and interoperability in the automotive environment.

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 four previous Ethernet & IP @ Automotive Technology Days, the first was hosted by BMW AG, the second was hosted by Continental AG, the third by Robert Bosch GmbH, and the fourth by General Motors. The first three events were held by the automotive industry alone, the fourth event was the first held under the IEEE-SA Industry Connection Activity. Topics covered at these technology days include IEEE802.3bp, IEEE802.3bw, IEEE802.1 AVB, TSN, AUTOSAR, GENIVI, Automotive Applications, OPEN Alliance BroadR-Reach, 100BASE-T1, Wake Up Concepts, EMC, Connectors, Cables, ISO26262, etc.

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

Car Makers (OEMs):
- BMW
- Daimler
- GM
- Hyundai
- VW
- Toyota
- …

Tier1s:
- Bosch
- Continental
- Denso
- Harman
- …

Tier2s (Semiconductor)
- Broadcom
- Marvell
- Vitesse
- TI
- Renesas
- …

Tier2s (Tools):
- Elektrobit
- ETAS
- Vector

- TT-Tech
- …

Tier2s (Connector & Cables):

- TE Connectivity
- MOLEX
- Rosenberger
- …

Academia:

- FH Zwickau
- UNH
- FH Zürich
- TU Illmenau
- …

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 were 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 P802.3bp, IEEE 802.3 Distinguished Minimum Latency Traffic, IEEE802.1 AVB, TSN; IEEE1722(a).

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 will focus on addressing this need by continuing, restructuring and expanding the scope of the current event initially organized by industry.

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.

None of the above conferences or events is focusing on the deployment of Ethernet & IP in the Automotive environment.

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 fourth

event was organized in North America in 2014 and the next event for 2015 is planned in Japan.

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 2015 event will be the 5th annual event; however, it is the second as an IC activity.

Activity should be reviewed by ICCom (after two events) for possible continuation/extension. It is anticipated that the review after two events will result in (a) continue to operate the Ethernet & IP @ Automotive Technology Day under IEEE-SA/ICCom, (b) transfer the Ethernet & IP @ Automotive Technology Day to IEEE Conference organizers, or (c) disassociate IEEE-SA from the event.

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.

Initial proposal is for an annual IEEE-SA Ethernet & IP @ Automotive Technology Day, changing venue worldwide. Frequency may be increased and/or new locations may be added after further market research supports such a decision.

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 will be provided by the Ethernet & IP @ Automotive Technology Day board members and/or other sponsors (see Section 7, Management and Procedures). Sponsorships will be available on a first-come-first-served basis.

There is a participation fee to attend the meeting, which covers the costs of hosting the event.

No funding from IEEE-SA is anticipated at this time.

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).

An Event Board (steering committee) has been set up with representatives from the industry. Such a Board will be responsible for appointing the "Event Committee" (program committee) for each annual event hosted under the banner of IEEE-SA Ethernet & IP @ Automotive Technology Day. The event committee may operate multiple subcommittees as the number of activities/tasks grow.

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.

Based on the history of the Ethernet & IP @ Automotive Technology Day, we believe 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.

Board members: 5
Event Committee: 10-15
Event attendees: 500

For reference, please note that the attendance at the Ethernet & IP @ Automotive Technology Day has been 320 in November 2011 (the event location had 320 seats) and 450 in 2012 (the event location did not support more than 450 participants). At both events, further applicants had to be turned down. In October 2013, the attendance was of 522 participants. In October 2014, the first event organized in North America and under IEEE-SA Industry Connections, the event had 401 registered participants, 37 exhibitors, 3 Sponsors, a total revenue of about $210K with a surplus of about $60K.

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)

Entity	Primary Contact	Additional Representatives
Robert Bosch GmbH	Helge Zinner	Thomas Hogenmüller
BMW AG	Kirsten Matheus	Thomas Königseder
General Motors	Massimo Osella	Markus Jochim
Continental AG	Daniel Zebralla	Jürgen Röder
JASPAR	Hiroyuki Matsumoto	Yoshihisa Mashita