Strengthening Telecom Standardization Activities in India
Industry Connections Activity Initiation Document (ICAID)

Version: 1.0, 22 February 2023

IC23-002-01 Approved by the CAG 22 March 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.

Primary Contact: Name: Mr. Avinash Agarwal
Email Address: ddgstd.tec@gov.in
Employer: DoT (Department of Telecommunications)
Affiliation: TEC (Telecommunication Engineering Centre)
Alternate Contact: Name: Mr. Jitendra Lal Gupta
Email Address: dirsted.tec-dot@gov.in
Employer: DoT (Department of Telecommunications)
Affiliation: TEC (Telecommunication Engineering Centre)

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

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.

Engagement and gap analysis in standardization on subject like 6G, Quantum Communication, AI, Telecom Security, advanced optical communications, advanced wireless communication etc. The goal of the IC activity is to bring together all the stakeholders (policy, regulator, service provider and technologies across telecom sector in India) to create a viable systematic and meaningful roadmap in contributing and collaborating with the IEEE Standards activities in India. The Department of Telecommunications (DoT) and Telecommunication Engineering Centre (TEC) are well versed in collaborating and participating in the standardization activities of ITU, however not as much with IEEE. Through this Industry connections program, we would like to involve all the stakeholders and organizational units of DoT in identifying standard projects, publishing white papers, technology focused workshops etc.

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.).

Describe the related work.
Please find a brief list of some of the contributions in standards work of TEC
- National Common Channel Signaling Plan
- 5G Core - TEC40182205
- Fairness Assessment and Rating of Artificial Intelligence Systems

3.3 Previously Published Material

Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

Please find a brief list of Study papers published in TEC
- Concept paper on OF & OFC in Indian Telecom Network
- DIGITAL RIGHTS MANAGEMENT SYSTEM A Technology for Secured Delivery of Digital Content through the Internet
- 5G Core Network
- TEC Report on Roll out of Small Cells for 5G Network by Leveraging Street Furniture

3.4 Potential Markets Served

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

Telecom sector in India

3.5 How will the activity benefit the IEEE, society, or humanity?

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

We see that there is no organized government body focusing on telecommunication technology and standards roadmap to engage with IEEE in India. This work is going to get all the stakeholders including the regulators, manufacturers, service providers from India be part of the IEEE Standards Association activities moving forward.

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: March 2025

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.

• Create a series of Workshops/ conferences under the banner of IC program focused on - 6G, Quantum Communication, AI, Telecom Security, advanced optical communications, advanced wireless communication etc.
• The IC program will deliver annual & quarterly report on recommendations of the group on actions for each specific technology.
• Identify gaps in standards for developing new standards.

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.

Specify funding requirements and sources, if any.

We do not request for any funding from IEEE Standards Association for this Industry Connections Program.

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.
No

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.).

• The activity will be managed by the leadership of the executive committee of this Industry Connections Program as defined in the activities, policies and procedures.
• It will have a chair, vice chair and other functionary.

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.

This activity will use (a) modified baseline *Industry Connections Activity Policies and Procedures*

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.

TEC/ DoT and concerned organizations/ stakeholders viz.
- National Telecommunications Institute (NTIPRIT)
- Centre For Development Of Telematics (C-DOT)
- Indian Telephone Industries (ITI)
- Telecommunications Consultants India Limited (TCIL)
- Bharat Sanchar Nigam Limited (BSNL)
- Mahanagar Telephone Nigam Limited (MTNL)
- Telecom Manufacturers

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.

Number of entities = 5 to begin with

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:

Entity Name	Primary Contact Name	Additional Representatives
TEC	Mr. Avinash Agarwal, DDG (STD)	Mr. J.L. Gupta, Director (STD) Mr. Rajmohan Meena, ADG (STD)
DoT	Mr. Y.G.S.C. Kishore Babu, DDG (SRI)	Ms. Deepa, ADG
NTIPRIT	Mr. Ashok Kumar, DDG	Mr. S K Tomar, ADG

TRAI	Mr. Mahendra Srivastava, Pr. Advisor	Mr. Akhilish Kumar Trivedi, Advisor
C-DOT	Mr. Sandeep Agrawal, Team Leader	

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

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.