

Rural Communication

Industry Connections Activity Initiation Document (ICAID)

Version: 1.0, 18 August 2020

IC20-013-01 Approved by IE&SS SMDC 8 October 2020

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: Sandeep Agrawal

Email Address: sandeepa@cdot.in / sandeepa@ieee.org

Employer: C-DOT (Centre for Development of Telematics)

Affiliation: C-DOT

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).

Specify: Individual 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.

Rural areas of countries continue to be sparsely covered and are not considered as a viable business case by telecommunication operators. Recent growth of teledensity in urban areas, fuelled by mobile technology, has meant that the digital gap between rural and urban areas has widened.

Rural populations will need to be provided with viable connectivity solutions, by connecting remote areas to the broadband core networks. Choosing efficient, cost-effective and fast-deployment technologies - whether wired or wireless networks - will improve accessibility.

The goal of the programme is to contribute towards the the goal of global (including rural community) digital inclusion, by developing solutions for rural and remote areas using suitable technologies.

Rural connectivity will open up new opportunities for the communities and will lead to improvement in their quality of life. Internet connectivity will provide people with more options to achieve economic self-sufficiency. Information on healthcare, agriculture, education, employment opportunities, etc. can be accessed by the people through the internet. COVID-19 reinforces the need for affordable connectivity and this effort focuses on the challenges, opportunities and solution in providing sustainable, reliable and affordable connectivity to rural areas.

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.).

- Interoperable and Secure Public Wi-Fi - P2872 (Open list- to add additional activities)
- Quality of Service
- Frugal 5G - P2061
- Backhaul Network
- IEEE 802.11 Technology
- DIITA (Digital Identity Inclusion Trust and Agency)
- IEEE INGR CTU (Connecting the Unconnected)
- Internet Grades of Services in Rural Area - P1941.1

3.3 Previously Published Material

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

- IEEE 802.11 Standard
- Gram Marg (<http://grammarg.in/>)
- DIITA - Affordability and Accessibility Workstream Publications
- IEEE International Network Generations Roadmap (INGR) Connecting the Unconnected (CTU) White Paper (to be released in the end of June 2020)

3.4 Potential Markets Served

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

- Rural and Remote areas of the world
- Unconnected citizens in the urban areas

3.5 How will the activity benefit the IEEE?

- Achieve IEEE's goal of connecting the unconnected.
- Serve IEEE's goal of Serving the Humanity

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).

- 2 years (2022)

Expected Completion Date: 9/2022

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCOM and the IEEE-SA Standards Board. 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.

There will be multiple deliverables:

- 1) White papers identifying the broadband requirements in rural communities
- 2) Reports identifying gaps in existing standards
- 3) New PARs based on the gaps
- 4) New PARs for Recommended practices
- 5) Workshops and events
- 6) Webinars

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.

Will the activity develop or incorporate open source software (either normatively or informatively) in the deliverables?: Not known at this time

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.

No expenses anticipated apart from the basic support

7. Management and Procedures

7.1 Activity Oversight Committee

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

Has an IEEE committee agreed to oversee this activity?: No

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

IEEE Committee Name:

Chair's Name:

Chair's Email Address:

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).

Executive Committee of this program will manage the activities.

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*, (b) Standards Committee policies and procedures accepted by the IEEE-SA Standards

Board, or (c) Working Group policies and procedures accepted by the Working Group's Standards Committee. If option (a) is chosen, then ICom review and approval of the P&P is required. If option (b) or (c) is chosen, then ICom approval of the use of the P&P is required.

Industry Connections Activity Policies and Procedures will be adhered.

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.

Stakeholders identified to date include but are not limited to: users and producers of systems and components for networking systems, telecommunications carriers, service providers, semiconductor manufacturers, test houses, content providers, technology providers, academia. External standardization bodies and industry organizations, will be encouraged to participate in enhanced cooperation.

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.

10 entities

8.3 Initial Participants

Provide a number 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	Primary Contact	Additional Representatives

Use the following table for an individual-based activity:

Individual	Employer	Affiliation
Name		
Sandeep Agarwal	C-DOT	
Buland Khan	WIPRO	
Dr. Paventhan	ERNET	
Dr. Sarbani Belur	IIT-B/Spoken Tutorial	