



tsdsi NEWSLETTER

June 2020 | Volume 4 | Issue 2

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MESSAGES



From the **CHAIRMAN'S DESK**

Dear Readers,

I am delighted to announce that TSDSI's Radio Interface Technology (RIT) has qualified for inclusion in the ITU's IMT2020 specifications as an independent technology mobile system (generally referred to as 5G), at the just concluded ITU-R WP 5D meeting #35e. Acceptance of TSDSI RIT as a 5th Generation technology standard, a first for India, is a trailblazer for our potential to deliver more such solutions that are appropriate to the specific requirements of the developing world and rely on indigenously developed technologies. This technology increases cell range enabling low cost coverage for rural and remote areas and has additional features to support higher spectrum efficiency and improved latency. This feat would not have been possible without the unflinching support from the Department of Telecommunications, Govt. of India.

Several countries joined in supporting TSDSI's standard as it addresses their regional needs from a 5G standpoint. TSDSI will continue to engage with them to pursue development of the specific requirements of our regions and development of appropriate standards.

TSDSI members are now working on technologies beyond 5G and vertical applications.

TSDSI efforts in reviewing the WTSA resolutions and proposed recommendations, that include a new resolution on equitable access to AI-ML over networks, are helping strengthen the standards ecosystem. TSDSI's new initiatives - Special Interest Group to engage non member individual experts, and online webinars and outreach workshops will foster an environment of standards-driven research and innovation within the country.

Prof. Bhaskar Ramamurthi,

Chairman, TSDSI

ANNOUNCEMENTS



**TSDSI RIT qualifies
for inclusion in
IMT2020
specifications of
ITU-R as an
Independent
Technology**

**Special Interest
Groups (SIGs) on
Device Agnostic
Contact Tracing &
Proximity Detection;
and Mobile Data
Protection & Privacy
formed**

**TSDSI submits
recommendations on
key resolutions for
WTSA 2020 to TEC**

**Nominations for
TSDSI Awards 2020
now open**



DG SPEAK



Dear Colleagues,

Hope you are all doing well and staying safe.

In response to the COVID-19 situation all Standards development activities (ITU, 3GPP, oneM2M etc.) have moved online. TSDSI has also seamlessly adapted to all Virtual meetings and work-from home. It is very encouraging to see that our members have enthusiastically embraced the virtual meetings. We have seen a huge surge in participation with 70 to 90 people signing up for the technical meetings.

As highlighted in the Chair's message, TSDSI-RIT passing STEP 7 a ITU-R WP5D is indeed a proud moment for all of us at TSDSI. As we reflect on this journey that started in October 2016, there are 3 important lessons for us:

- 1. Collaboration** is the key to success in standards. Academia, Industry and Government seamlessly came together meeting after meeting and spoke in one voice during the ITU-R WP5D meetings.
- 2. Communication** is essential to navigate the unforeseen challenges of the Standardisation process. Pre-meetings to prepare, offline meetings to align stakeholders and constant communication within the team members were diligently followed.
- 3. Commitment** for the long haul, is vital to success. This has been a 4-year journey and the fact that there has been a consistent set of people championing this activity along with consistent support from TSDSI secretariat.

As the scope of activities and contributions from TSDSI are broadening we need to embrace these lessons and adopt them rigorously.

For the last 4 years we have also imbibed the culture of goal setting and tracking our progress through metrics. In the last newsletter we talked about the 2019-20 accomplishments. This time we are sharing the Goals for 2020-21 which we shall be tracking throughout the year. These continue to be based on the three pillars defined earlier. Additionally, some new initiatives based on the Vision document have been added for these. These are described below:

| GOAL | STUDY GROUPS | SECRETARIAT | GOVERNING COUNCIL |
|---------------------------------------|---|---|--|
| Enhance Technical Activities at TSDSI | 8+ active XIPs in every meeting; TSDSI (driven) Standards and reports (8), National Standards (based on TSDSI TS)(20+), Focus on 5G and future technologies, India specific requirements | WORLD CLASS Technical Plenarities with 30+ Member companies participating per meeting | Roadmap V2 by Q3 2020; 8+NIPs per SG/year 90+ Members by eof 2020 |
| Higher Impact in Global Forums | Consistent participation (10+ delegates) & (10+) contributions in 3GPP, oneM2M, ITU-R and ITU-T meetings. TSDSI positioning @ Key Events -5G Huddle, IEEE 5GWF, IMC, WTSA 2020, Partner Events (5GIA, BIF, CCICI, IEEE, TIA) | Roll out "Global SDO participation Framework"; 5+ member delegations for PCG/OP, SC and GSC meetings; All transpositions within 6 months of release; Leadership/Admin roles at ITU/3GPP/ oneM2M for TSDSI members/secretariat | |
| Establishing TSDSI as World Class SDO | SECRETARIAT | GOVERNING COUNCIL | |
| | QCI, ITU and ISO 9001-2015 Accreditations for Secretariat (for operational excellence) Special focus on MARCOM, Membership development, International Relations with Global SDOs, IPR & Legal framework | Establish TSDSI as the Digital Communication SDO of India Strategy for Application Layer Standards GC Committees processes to be streamlined GC members to Champion initiatives with Global SDOs and Forums TSDSI Vision GC members/ ex-GC members participation in Outreach events; | |
| Membership Development | 10 new SME's ; 5 new Academia/R&D members; 5 new Govt/PSU members; 5 new Vertical Industry members Engage 75% members in Technical activities | | |
| TSDSI Vision 2.0 Initiatives | Initiate : IPR and Patents Strategy, Research & Academia Strategy, Spectrum Strategy; Market Strategy Ongoing : Outreach/Capacity Building Strategy, Affiliations Strategy, Secretariat Strategy | | |

Over the last 2 years the focus was on strengthening the secretariat, by putting in place a robust structure and processes. This has been adequately recognised in the extensive feedback we have received from our members. Thanks for your enthusiastic participation in the Membership survey. With the basic systems and processes in place, now our focus is shifting to engage more deeply and broadly with our member community and the ecosystem.

Adapt to the new "Virtual mode of working" we are experimenting with new ways of connecting our members through TSDSI Expert Talks, TSDSI Partners Webinars, Online Conferences and workshops. We understand that there are multiple invitations for virtual events/ meetings reaching you everyday, hence we need your inputs on how to make the TSDSI events more meaningful for you.

A very interesting development has been the spontaneous emergence of "discussion groups" on new and emerging technologies. We are nurturing these and trying to put in processes to support and steer them towards Standards development.

We admire the resilience of our membership community in these trying times and are energised by it. Looking forward to your enthusiastic participation in the upcoming GC Elections and Nominations for TSDSI Awards.

Let us partner in this very exciting journey of contributing to development of standards on the world stage,

Regards,
Pamela Kumar, Director General



Standardization Activities

Study Group - Networks

IMT2020 and TSDSI RIT/SRIT submission (W11-S139): Subsequent to clearing evaluation stage (step 4 of IMT-2020 process), TSDSI was required to submit overview of its technology and specification list for consideration in the ITU-R WP5D #35e meeting in June 2020. Details of this submission were approved by the Study Group based on deliberations in the Technical Plenary and subsequent email discussions.

Enhancement of Flexible UL/DL Resource Utilization in 3GPP Release 17 (Si66): Contents of a Technical Report on this topic, incorporating contributions from members have been finalised.

Extension of Broadcast Offload (W11-NIP226): This work item will be taken up in two stages- drafting of a technical report in the first stage, followed by development of a standard. Contents of the report have been finalised based on contributions from members.

The following NIPs have been approved as Study Items:

- NIP229 - "Dynamic Spectrum Access" (SI71)
- NIP 236 - "Improving data capacity & experience as per NDCP Vision" (SI72)

Study Group - Services and Solutions

Cloud Interoperability and Portability (SI61): Technical Report on Cloud Interoperability & Portability has been finalised and placed under review over email discussion.

Unmanned Aerial Services (SI62): Aerial UE / Drone requirements considered in development of the 3GPP specifications have been incorporated in the draft technical report on cellular connectivity based UAV. The report has been placed under review over email discussion.

Indian Language support for financial transactions (SI67): Draft Technical Report on Indian Language for Financial Transactions and Applications has been placed under review over email discussion.

Reducing Threat using DNS (SI68): Technical Report on Reducing Threats to National Critical Infrastructure using DNS has been placed under review over email discussion. It studies the role of Protective DNS in securing the National Critical Information Infrastructure and how Threat Intelligence can complement the same.

Public Protection & Disaster Recovery (NIP241): A Liaison Statement sent by DCPW to TSDSI on PPDR ecosystem was discussed in the group. The group decided to develop recommendations for technical scope of a pilot project for PPDR coverage, which can help gather experience before PAN India rollout. This will be done over email discussions.

Machine KYC (NIP244): The group approved a study item to develop recommendations for verification, databasing and enquiry of a custodian-device relationship for dispersed

connected devices, gateways and machines. This is an extension of Know-Your-Customer (KYC) norms and processes prevalent for individuals, to the ecosystem of connected dispersed devices. An email discussion is being initiated by the Topic Champion to refine scope of the study.

Contact Tracing and Proximity Detection (NIP240): A presentation on contact tracing and proximity detection with emphasis on interoperability across devices and protecting privacy was made by invited experts. A Special Interest Group is being formed to decide on the scope & garner member support for the topic.

Mobile Data Protection & Privacy (NIP245): A proposal to study strengthening of data privacy and protection at various levels - applications, devices, connectivity and downstream processing at server levels was presented to the group. It has been decided to pursue this activity under a Special Interest Group.

Proposals on Common User Profile Format (NIP239) and Open Bootstrap Framework (NIP242) were also discussed in the group. Scope of these topics are being refined and will be taken up in the next meeting of the group.

Snapshot of Technical Activities

| Group Name | Study Group- Networks | Study Group- Services & Solutions |
|---|-----------------------|-----------------------------------|
| Total No. of Technical Reports Released | 3 | 77 |
| No. of Technical Reports in Draft | 0 | 4 |
| Total no. of Standards Released | 2111 | 112 |
| No. of Standards in Draft | - | - |

List of Technical Meetings held in this period is given below:

| Group | SG - Networks | | SG - Solutions & Services |
|----------------------------|---------------|----------------------|---|
| Meeting | FCC | TP Meeting | TP Meeting |
| Date | 15 May 2020 | 28-29 May 2020 | 17-18 June 2020 |
| Venue | Online | Online | Online |
| Attendance (Organizations) | 21 | 35 and 2 (observers) | 29 and 15 (invited experts & observers) |

TSDSI welcomes volunteering offers to organise discussion workshops and knowledge sharing webinars on any active study or work items listed on our website. Please contact outreach@tsdsi.in for the same.



Strategic Activities

Special Interest Groups

In its endeavour to engage with technical experts (member and non-member) as part of its pre-standardisation activities, TSDSI is anchoring technical discussions on a few specific topics. Two topics have been identified as candidates for a formal technical study within the TSDSI's ambit. These are being taken up in TSDSI through Special Interest Groups (SIG), where the non member technical experts can continue to participate. These are as follows:

- **SIG on Mobile Data Privacy and Protection:** This SIG, led by Mr Balaji Rangaswamy, Member - Roadmap and Standardization Committees (Sooktha Consulting), is working on data privacy and protection at various levels. The group conducts weekly meetings. An initial list of topics has been collated for further study and analysis.
- **SIG on Device Agnostic Privacy Preserving Interoperable Contact Tracing (DAPPICT)** led by Mr Balaji Rangaswamy, has been formed to study interoperability of contact tracing and proximity detection systems and preserving privacy.

Please contact outreach@tsdsi.in for joining the SIGs.

World Telecommunications Standards Assembly (WTSA) 2020

World Telecommunications Standards Assembly (WTSA) 2020 conference will be hosted by DoT in Hyderabad from 17-27 November 2020. TSDSI is partnering with DoT to ensure good participation and contributions from Indian Stakeholders in this prestigious conference, that sets the strategy for the next four years for ITU-T. TSDSI was invited by DoT to contribute to review of the WTSA resolutions and make recommendations for modifications, where appropriate. The Governing Council, in its meeting #28 directed the Study Group Chairs/Vice Chairs to devise a strategy for this. A Focus Group has been formed for this activity. The group has been conducting weekly meetings to discuss the resolutions. Till the end of June, recommendations to amend two (2) resolutions and one (1) new resolution have been prepared and are being sent to Telecom Engineering Centre (TEC) for incorporation as India's recommendations.

Stakeholder Feedback Survey

TSDSI conducted a Stakeholder Feedback Survey to garner feedback on what is being done well and what needs improvement. 44 respondents from 34 member organizations participated in the survey. There was an overwhelming preference for online meetings. The responses are being analysed and findings will be shared with members.

Pre-standardization Activities

TSDSI in partnership with India EU Partnership Project conducted a Partner Webinar Series on Standardization@3GPP. The series included talks by 3GPP experts from the 3 Specification Groups - Radio Access Network (RAN), Services & Systems Aspects (SA) and Core Networks & Terminals (CT).

TSDSI is launching a **"TSDSI Expert Talks"** Webinar Series to engage India's standardization community as well as global stakeholders, in a dialog on "Standards for Emerging Technologies". The series will be inaugurated by **Prof Arogyaswami Paulraj**, Professor Emeritus Department of Electrical Engineering, Stanford University, with a talk on "Progress of 5G and Glimpses of 6G" on 24 July 2020.

View details at <https://tsdsi.in/tsdsi-expert-talk-webinar-series/>



PARTNER ENGAGEMENTS



ITU

TSDSI delegation led by Ms Pamela Kumar, Director General, TSDSI, participated in the ITU-R WP 5D meeting #35e held online from 23 June to 9 July 2020. TSDSI RIT has qualified step 7 at the meeting. It will now be included in the IMT-2020 specification of ITU-R as an Independent Technology.

3GPP

3GPP PCG#44/OP#43e meeting was held on 7 April 2020 in online mode. TSDSI delegation to the meeting comprised 9 members, led by Chairman TSDSI.

3GPP organised an online Newcomers' Orientation Session on 16 June 2020 covering overview and activities of its technical specification groups (TSGs). The session was conducted by the TSG Chairs (SA, CT and RAN).

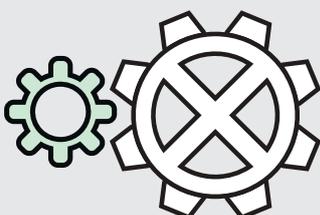
All 3GPP meetings in the year 2020 will be conducted online. Participation and contributions by representatives from TSDSI member organisations in 3GPP technical meetings for the reporting period is as follows:

| Group | No. of Meetings | No. of Participants | No. of Contributions |
|-------|-----------------|---------------------|----------------------|
| RAN | 14 | 140 | 32 |
| CT | 7 | 16 | 1 |
| SA | 14 | 48 | 25 |

oneM2M

The 45th Technical Plenary meeting of oneM2M was conducted online from 20 April to 20 May 2020. TSDSI members CDOT, DoT, TEC and Sensorise participated in the meeting. 15 change requests from CDOT have been agreed at oneM2M in the reporting period.

oneM2M conducted a webinar on "oneM2M's latest developments in the IoT ecosystem and first preview of new features in Release 4" on 17 June 2020. The webinar also gave an overview of the oneM2M Certification program.



IEEE

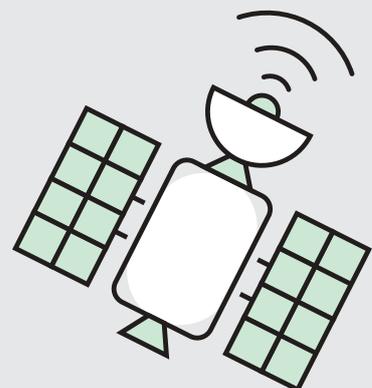
TSDSI held a bilateral meeting with IEEE SA on 30 May 2020. Following areas were identified for collaboration - Cloud Interoperability, Intelligent Transport Systems, Drones and Industrial AI. It was also decided that TSDSI would be an Event Partner for IEEE 5G WF Conference & ANTS Conferences.

IEEE-SA conducted a Virtual Event on "Technology Backbone for Growth in Rural Communities" on 28 May 2020. The event focused on the challenges and the opportunities in providing sustainable, reliable and affordable connectivity to rural areas. TSDSI Members - Prof. Radha Krishna Ganti (IIT Madras), Dr Sarbani Belur (IIT Bombay), Dr Punit Rathod (Intel) and Mr Sandeep Agarwal (CDOT) participated in the webinar.

Liaison Statements

TSDSI received 2 Liaison Statements (LS), one each from ITU-R and Directorate of Coordination for Police Wireless (DCPW), in the reporting period.

2 LS were sent, one each to 5G Infrastructure Association & World Wireless Research Forum during the same period. Liaisons Statements can be viewed at <https://tsdsi.in/liaison-statements/>



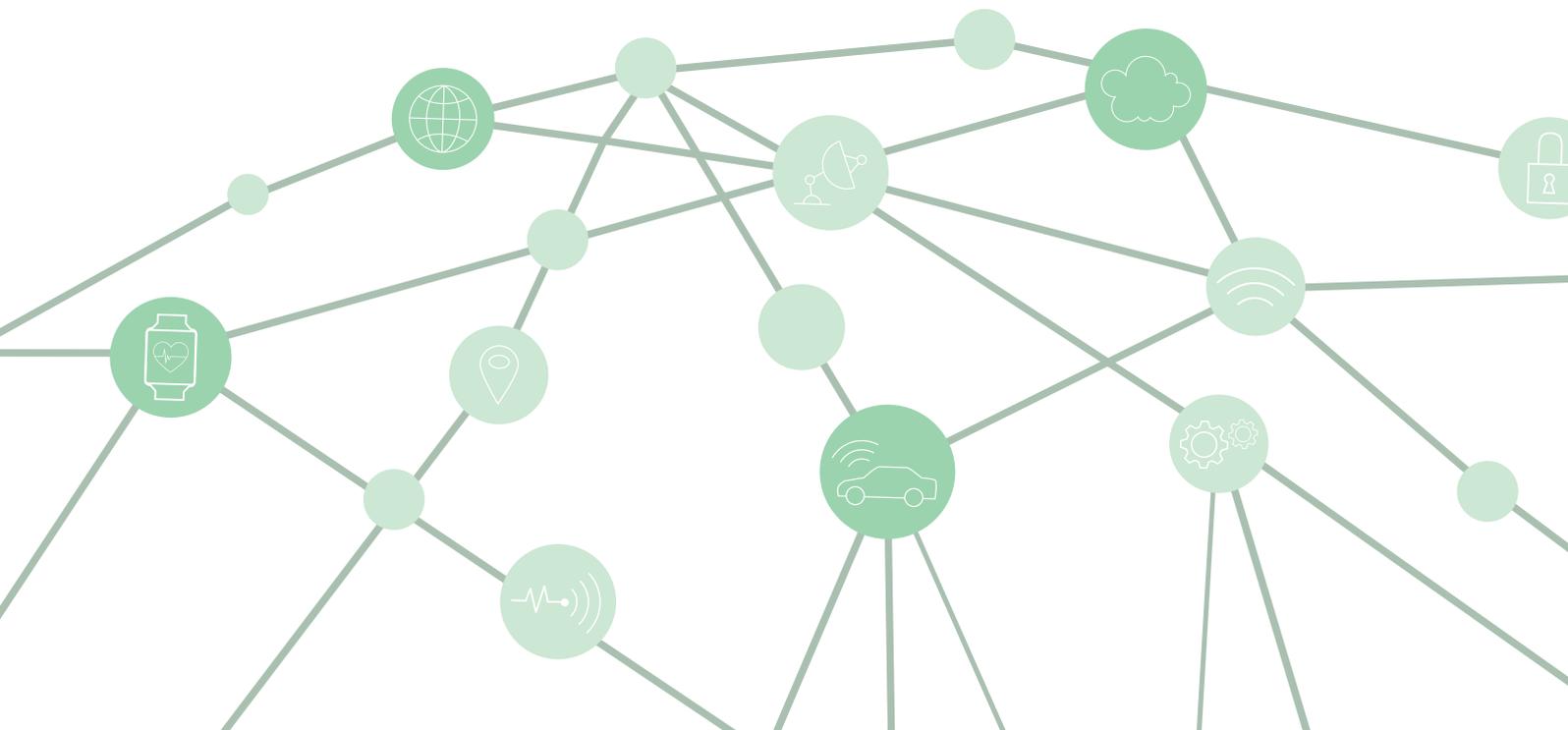


India-EU Partnership Project (PP) on Cooperation for ICT Standardization

The project organised several webinars in the reporting period as follows:

| Webinar | Date | Speakers | Recording |
|--|--------------|--|---|
| Business opportunities with AI in times of COVID-19. How EU India collaboration can spur innovation? | 19 May 2020 | Poul V. Jensen, Benoit Sauveroché, Dr. Mohit Gambhir, Mr. Rahul Lodhe, Manu Saale | https://bit.ly/2BEGvJI |
| Standardization@3GPP: 3GPP Introduction & Overview of Current Status of 5G in 3GPP SA. | 9 June 2020 | Georg Mayer, A.K Mittal (Moderator) | https://bit.ly/3fDDRTI |
| Standardization@3GPP: Evolution of the 3GPP Core Network with 5G and the support of Verticals. | 19 June 2020 | Lionel Morand, A.K Mittal (Moderator) | https://bit.ly/3dA0bvW |
| Enablers for the Fourth Industrial Revolution (4IR) – Early examples and synergies for the EU and India. | 23 June 2020 | Poul V. Jensen, Benoit Sauveroché, Shri R.K Pathak, Aravind Raman, Satish Jamadagni, Srini Gopalan | https://bit.ly/2Va1WcE |
| Standardization@3GPP: Webinar on RAN – 5G NR Radio Evolution. | 24 June 2020 | Balazs Bertenyi, A.K Mittal (Moderator) | https://bit.ly/383yzxN |

Details of previously held webinars may be viewed at <http://www.indiaeu-ictstandards.in/webinars/>.





Outreach

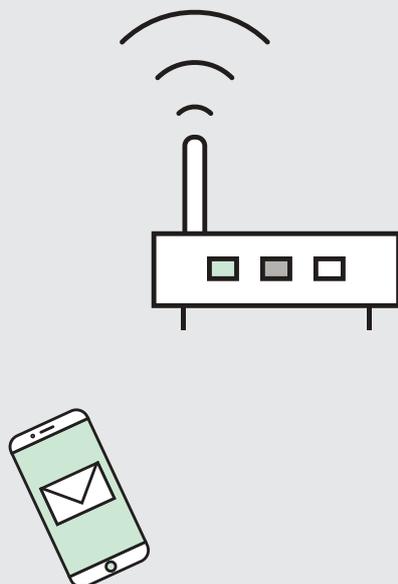
Ms Pamela Kumar, DG TSDSI, delivered a talk on "Connect 2030: ICTs for the Sustainable Development Goals (SDGs)" in the web conversation hosted by ITU APT Foundation as part of the World Telecommunication and Information Society Day (WTISD) celebrations on 18 May 2020.

Mr Satish Jamadagni, Vice Chairman TSDSI, delivered a keynote address on note speech on "How Open are Open Standards" at the IEEE WCNC 2020 Virtual Conference on Open RAN from 25-28 May 2020.

TSDSI partnered with Broadband India Forum (BIF), Bharat Exhibitions along with IEEE-SA, Wi-Fi Alliance, Wireless Broadband Alliance & Asia Video Industry Association, to organise the 2nd edition of "Digital Dialogues" on "The Role of Wi-Fi in Broadband Proliferation". The webinar was organized on 19 June 2020, eve of World Wi-Fi Day. Mr. Ajit Pai (Chairman Federal Communications Commission (USA)), Dr. R.S Sharma (Chairman TRAI, Government of India), Ms Dorothy Stanley (Chair Wi-Fi Working Group IEEE), Prof Abhay Karandikar (Director IIT Kanpur & Former Chairman TSDSI) and Mr T V Ramachandran (President Broadband India Forum) shared their views on the theme.

Ms Pamela Kumar, DG TSDSI, shared her views on "5G Network: Where will India stand in post COVID world to build a Digital Society" in a webinar organised by Exhibitions India Group on 20 June 2020.

If you are interested in getting an outreach workshop conducted for your organization or your industry segment, please contact outreach@tsdsi.in.



Finances

The GC reviewed TSDSI's performance for FY 2019-2020 and approved the budget for FY 2020-21.

Membership Fee has been revised for the current financial year. To view the new membership fee structure please visit <https://tsdsi.in/membership/>.

Please contact outreach@tsdsi.in to discuss potential sponsorship opportunities.

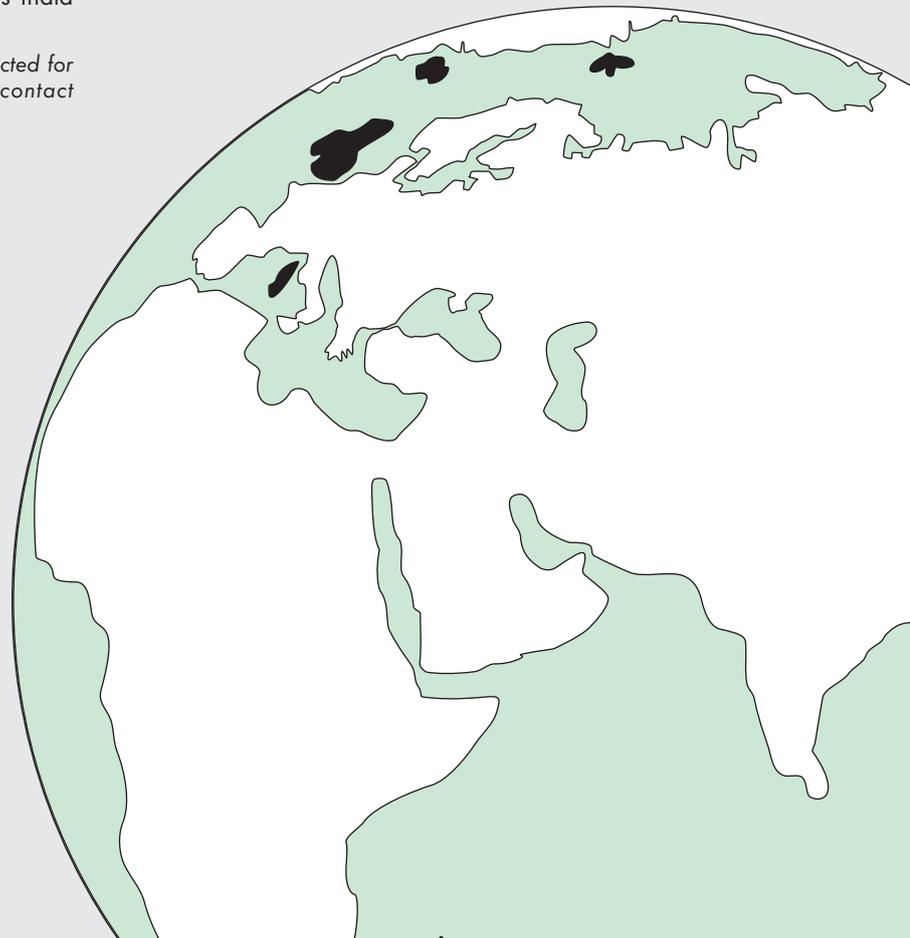
IT & Website

TSDSI Website design is being reviewed from a user experience perspective.

Operational Matters

TSDSI held its 28th Governing Council meeting on 24 April 2020 in online mode. Strengthening engagement with developing countries was emphasised at the meeting.

Process for Quality Audit by QCI has been initiated.



EVENTS



TSDSI Meetings

The 29th Governing Council and 14th General Body meetings are scheduled on 14 and 15 July 2020 in online mode.

TSDSI is launching "TSDSI Expert Talks" Webinar Series with the inaugural session by Prof Arogyaswami Paulraj, Professor Emeritus Department of Electrical Engineering, Stanford University as Speaker. He will talk on "Progress of 5G and Glimpses of 6G" on 24 July 2020.

TSDSI is conducting "TSDSI Virtual Outreach Session" with IIT Bhilai on 28 July 2020 on the theme "Standards Driven Research & Innovation in India". Participating institutes include IIT Indore, IIT Patna, IIIT Naya Raipur, IIIT Jabalpur and IIT Bhilai.

TSDSI Tech Deep Dive workshop is being planned online in October 2020, coinciding with the IMC2020. Details of the workshop will be shared shortly.

3GPP Activities in India

Due to ongoing COVID-19 situation, all 3GPP meetings for 2020 have been made online. This includes meetings that were planned to be hosted in India.

TSDSI

MEMBERSHIP UPDATE

Tata Communications Transformation Services Ltd and Coherent Logix joined TSDSI as corporate and observer members respectively.

Tata Communications Transformation Services (TCTS), <https://www.tatacommunications-ts.com/>, a 100% subsidiary of Tata Communications Ltd, provides leading business transformation, managed network operations, network outsourcing and consultancy services to telecommunication companies around the world, including but not limited to network engineering and design, implementation and operations functions.

Coherent Logix, <https://www.coherentlogix.com/>, is a semiconductor platform company providing software and IP solutions to the communications industry and an R&D contributor to ATSC, 3GPP And DOCSIS standards.

TSDSI member list can be viewed here https://tsdsi.in/present_members/

To apply for TSDSI membership, please visit <https://tsdsi.in/membership/>

ANNOUNCEMENT: TSDSI AWARDS 2020

Call for Nominations open till 31 August 2020

TSDSI Awards were instituted from year 2019 onwards to felicitate individuals who have contributed to the cause of TSDSI. Nominations window for the 2020 edition is now open till 31 August 2020 in the following categories:

1. Technical Category: accomplishments, contributions to TSDSI Technical Activities
2. Organizational Category: outstanding contribution towards building TSDSI as an Institution
3. Champion Category: Enhancing TSDSI influence/stature in the ecosystem

Members can nominate individuals in prescribed format available at link here <https://tsdsi.in/tsdsi-awards-2020-call-for-nominations/>

ABOUT TSDSI



Telecommunications Standards Development Society, India (TSDSI), aims at developing and promoting India-specific requirements, standardizing solutions for meeting these requirements and contributing these to international standards, contributing to global standardization in the field of telecommunications, maintaining the technical standards and other deliverables of the organization, safe-guarding the related IPR, helping create manufacturing expertise in the country, providing leadership to the developing countries (such as in South Asia, South East Asia, Africa, Middle East, etc.) in terms of their telecommunications-related standardization needs.

TSDSI is recognised by Department of Telecommunications as India's Telecom Standards Development Organisation (SDO).

TSDSI is registered as a Society under the Societies Registration Act (Act XXI of 1860).