



# tsdsi NEWSLETTER

March 2018 | Volume 2 | Issue 1

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## MESSAGES



### From the **CHAIRMAN'S DESK**

Dear Friends,

As TSDSI enters into its 4<sup>th</sup> year of existence on January 14, 2018, I am happy to note the impact we have started to make on the national and global standards landscape.

I congratulate our members on the quick response to DoT's request of transposition of a select set of 3GPP specifications to address Indian Telecom Security Assurance Requirements (ITSAR). A joint DoT and TSDSI secretariat team has been formed to carry out the transposition activity. Six top priority documents (as suggested by DoT) have already been transposed as TSDSI Standards/ Reports and are available on TSDSI website. The remaining transposed documents are undergoing verification by the joint team.

TSDSI initiated work on Cloud Interoperability and Portability standards, as a response to the mandate given by DoT. Discussions between TSDSI and CCICI to collaborate for development of the standards is a good example of the spirit of cooperation with other forums in the country with domain expertise while, at the same time, not diluting the rigour and methodical approach to the standards development.

Your enthusiastic participation and contributions at 3GPP, oneM2M and ITU, has begun to be recognised in the community. Recent invitations for partnerships from African Telecom Union, Wireless World Research Forum, 5GIA and others bear witness to this.

Contributions from TSDSI members related to Low Mobility Large Cell (LMLC) configuration at 3GPP and ITU-R have ensured that India has a say in the next wave of telecom - the 5G Technologies (IMT2020) to address not only the Rural-Urban digital divide challenges but also give our innovators an opportunity to incorporate indigenously developed IP into global standards. TSDSI members continue to champion key activities of the 5G India 2020 High Level Forum.

As the year progresses, I hope to see more such affirmations of faith in TSDSI's abilities by more user agencies/ user ministries.

**Prof. Abhay Karandikar,**  
Chairman TSDSI

## ANNOUNCEMENTS



**TSDSI transposes  
select 3GPP  
specifications to  
address ITSAR  
requirements of DoT**

**ITU-T adopts  
oneM2M  
specification on  
Functional  
Architecture as an  
m2m standard**

**TSDSI GC member  
appointed as 3GPP  
SA6 Chair**

**TSDSI inks an MoU  
with IEEE-SA**

## MESSAGES



## DG SPEAK

Dear Colleagues,

Thanks for your active engagement with TSDSI activities. The last quarter has been very active. I will use the 2018 Focus Areas to highlight key activities which are further detailed in the Newsletter:

### 1. Enhancing Technical Activities:

- i. Technical Plenaries (TP): January TP at Samsung, Bangalore & March TP at Airtel, Gurgaon
- ii. Workshops: Roadmap Committee; PPDR, Security & Cloud Interoperability
- iii. New NIPs & discussion topics in SGs on workshop topics as well as ICN, 60GHz in Backhaul and Dual SIM. We request you to invite subject matter experts to join in these important discussions. To further enable engagement of experts in niche areas, the Governing Council has approved in principle the formation of Joint Working Groups.
- iv. Transposition: 150+ Security related 3GPP Documents transposed and ready for final approvals. ~1500 M.1457 related 3GPP Documents transposition initiated. A Transposition Committee has been formed at the GC level to further streamline the transposition process.

### 2. Improving Impact in Global Forums:

- i. 3GPP RAN, SA and CT plenary meetings held in Chennai enabled participation from more than 40 TSDSI delegates. Contributions from our members related to enabling technologies for LMLC (especially the pi/2 BPSK Waveform with spectrum shaping) was extensively debated in the RAN meetings. This continues to be discussed at subsequent RAN meetings.
- ii. A series of workshops was conducted in Mumbai and Delhi to leverage the presence of international experts who had travelled to India for the 3GPP meetings.
- iii. Broadband India Forum has been inducted as a Marketing Partner in 3GPP, thus strengthening India's footprint.
- iv. TSDSI members are gearing up for IMT2020 RIT/SRIT submissions to ITU-R WP5D. We are also mobilising stronger participation at oneM2M and ITU-T and would request your active involvement in these.

### 3. Strengthening the Support Systems & Processes:

- i. New members: IIT Bhilai and IIIT Hyderabad
- ii. Roll out of the new IT Infrastructure and preparation for accreditation is ongoing
- iii. MoU with IITD signed to move the TSDSI office to Bharti School of Engineering on the Hauz Khas campus.
- iv. To further strengthen the support systems, Governing Council has accorded standing committee status to the following:
  - i. Budget and Finance Sub-Committee of the Governing Council
  - ii. Rules & Regulations Sub-Committee of the Governing Council
  - iii. IPR Matters Committee
  - iv. Outreach Committee
  - v. Roadmap Committee
  - vi. Standardisation Committee
  - vii. Transposition Committee

The committee chairs are in the process of refreshing the committees and will be providing regular updates during the Governing Council and General Body meetings.

We are fully committed to continue the transformation of TSDSI into a high impact, world class SDO and invite your active engagement.

We request special focus and engagement on outreach activities to spread the word about the good work happening at TSDSI and to help us bring in more new members.

Please join me in welcoming our new members and helping them get inducted into TSDSI.

Looking forward to seeing you all at the upcoming Technical Plenary sessions and General Body meetings,.

**Pamela Kumar,**  
Director General



## ACTIVITIES



### Standardization Activities

TSDSI has taken up transposition of select 3GPP Specifications (from releases 4 to 15) related to security aspects to further enable their adaptation in the Indian Context. The first set of transposed documents (5 Standards and 1 Report) are available for public viewing at <https://tsdsi.in/3gpp/>. The remaining 136 documents are in final approval stage.

TSDSI has been directed by DoT to develop Standards for Cloud Interoperability and Portability in India based on TRAI recommendations to entrust TSDSI with this task. TSDSI kick-started the work by conducting a structured discussion around the topic in its Standardization Roadmap Workshop in January 2018. Apart from member representatives, experts from the field participated in the discussions and a concept note was generated. A work item was agreed to be created under the Services and Solutions study group for developing the standard. This will have an initial structured Study phase, for gap analysis of currently available standards w.r.t. needs, followed by development of an appropriate standard. In this context, a one day workshop was conducted on March 14, 2018, at Airtel, Gurgaon, to garner inputs on the topic from named Cloud Computing (CC) Subject Matter Experts from global and Indian perspectives. A report based on the deliberations at the workshop is under preparation. The study group is in the process of enrolling interested experts, in their individual capacities, as Subject Matter Experts for contributing to the Work Item. The Work Item is already endorsed by several member organizations.

A Transposition Committee, comprising Vice-Chairman (Chair), Chairs and Vice-Chairs of the SG-Networks and SG-Services and Solutions Groups and a member representative, Mr Prakash R from CDOT, has been formed by the Governing Council to define and oversee the Transposition process in TSDSI, focussing on 3GPP and oneM2M specifications. The scope of the committee will be limited to "ASIS" transposition activities. Any modification of Transposed Standards to meet Indian requirements will go through the normal process of approval in the relevant Study Group.

### Metrics (Snapshot of Technical Activities):

Group Name	Total No. of Technical Reports Released	No. of Technical Reports in Draft	Total no. of Standards Released	No. of Standards in Draft
Networks Study Group	-	2	295	1
Services & Solutions Study Group	10	56	32	80

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

Group	Meeting	Date	Venue	Attendance (Member Organizations*)
SG1 - Networks	SG1- F2F (in person)	January 11-12, 2018	Samsung, Bengaluru	20
SG2- Services and Solutions	SG2- F2F (in person)	January 11, 2018	Samsung, Bengaluru	16
All groups- DG Plenary	DG Plenary (in person)	January 11, 2018	Samsung, Bengaluru	22
SG2- Services and Solutions	SG2-FCC Audio-conference	January 29, 2018	Audio-conference	8
SG1 - Networks	SG1-FCC Audio-conference	February 19, 2018	Audio-conference	10
SG2- Services and Solutions	SG2-FCC Audio-conference	March 7, 2018	Audio-conference	6
SG1 - Networks	SG1- F2F (in person)	March 15-16, 2018	Airtel, Gurgaon	17
SG2- Services and Solutions	SG2- F2F (in person)	March 15, 2018	Airtel, Gurgaon	12
All groups	DG Plenary (in person)	March 16, 2018	Airtel, Gurgaon	6

\* Includes observer members

### Salient decisions taken at the above meetings are:

- Existing Study and Work Items under SG-Networks, emerging out of the merger of the erstwhile SGs, were reviewed and dormant items were discontinued. Chair, SG-Services and Solutions is coordinating with the proponents of technical items falling under this group to review their validity as on date.
- Work-plan for submission of RIT/SRIT for IMT2020, aligned to the ITU-R timelines has been prepared.
- Discussions have been initiated on Dual SIM, 60GHz Band for Access/4G-5G Backhaul. Technical Report on PPDR shall be progressed via email discussions.
- New Study Items on Unified PPDR for India, Information Centric Networking (ICN), 60GHz spectrum matters have been approved.

**ACTIVITIES**



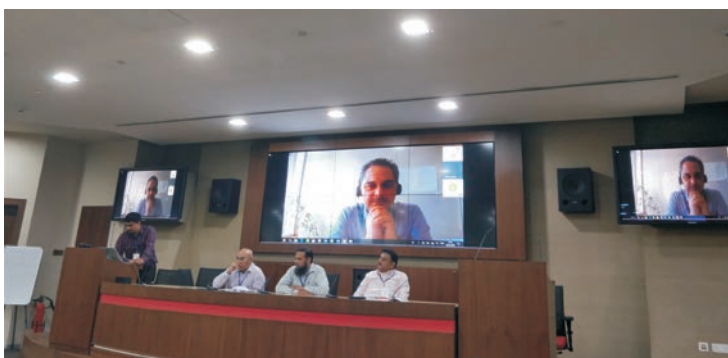
**Pre-standardization Activities**

**Standardization Roadmap**

Standardization Roadmap Committee was chartered by the Governing Council to develop a high level Roadmap. The committee had conducted two workshops earlier to garner inputs from stakeholders (members and non-members). A 3<sup>rd</sup> workshop was conducted on January 10, 2018 to create a draft of the Roadmap in consultation with the technical groups. A total of 18 concept notes were submitted for discussion at the workshop. 10 Roadmap items were finalised as a result of the discussions, and workplans are being developed for these. The workshop deliberations triggered creation of 4 new Study Items. It has been decided to incorporate the currently active study and work items in the Technical groups as Roadmap items. The roadmap will serve as input for preparation of a work programme of the Technical groups. A detailed report suggesting the short, medium and long term plans and way forward, is under preparation. The workshop, hosted by TSDSI member, Samsung R&D Institute, in their Bengaluru campus, was attended by 26 representatives from 17 member organizations, and 1 guest invitee.

**The following technical workshops were conducted in this period:**

Workshop Topic	Date	Venue	Participation (member organizations)
Telecom Security under the SG2-Services and Solutions group	January 11, 2018	Samsung Bengaluru	16
Public Safety under the SG2 - Services and Solutions Group	January 12, 2018	Samsung Bengaluru	16
Cloud Interoperability and Portability under the SG2-Services and Solutions Group	March 14, 2018	Airtel Gurgaon	14



TSDSI supported IIT Bombay in organizing a Workshop on “Roadmap for Broadband Communication in Public Protection and Disaster Relief (PPDR)” at IIT Bombay on March 26, 2018. Mr Vijay Madan, Advisor - Services and Solutions, made a presentation at the workshop. A key takeaway from the workshop was the need to conduct periodic workshops to promote exchange of ideas and experiences of user segment with the technologists.

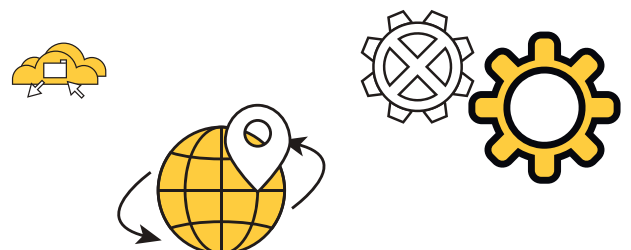


**India-EU Partnership Project (PP) on Cooperation for ICT Standardization**

Regular Knowledge Sharing (KS) Webinars are being organised under the aegis of the Partnership Project, with the aim of bringing experts in specific topics on a common platform. The webinars conducted in the reporting period are listed below. The webinar recordings can be viewed at <http://www.indiaeu-ictstandards.in/webinars/>.

Webinar Topic	Participation (individuals)
Webinar on January 23, 2018 on Global Regulatory Compliance Requirements - Wireless IoT: Panel Discussion Moderator: Mr A K Mittal, Advisor-Networks, TSDSI and Mr G KalyanVerma, VP Business Stream Products - IMEA, TUV Rheinland (India) Pvt. Ltd.	50
Webinar on February 27, 2018 on Cloud Interoperability and Portability: Panel Discussion Moderator: Mr Udayan Banerjee, Advisor-TSDSI Prof. DinkarSitaram, Prof. CSE and Head Centre of Cloud Computing and Big Data, PES University, Bengaluru	31

The webinars have resulted in triggering membership enrolments at TSDSI, discussions for mutual collaborations among participants, generation of proposals for technical studies/standards development etc.





**PARTNER ACTIVITIES**



**ITU**

A TSDSI delegation, led by Mr A K Mittal, Advisor-Networks, participated in the ITU-R WP 5D meeting#29 held in Seoul, South Korea from January 31 -February 7, 2018. TSDSI's intent to submit RIT/SRIT enhancements over 3GPP specifications for IMT 2020 technologies was acknowledged at the meeting. Schedule of Revision 4 for IMT Advanced Technologies M.2012-4 was notified at this meeting.



**3GPP**

TSDSI proposed modifications in Technical information of 3GPP's RIT/SRIT initial submission template based on Rel. 15 for ITU-R M.2012(4), based on inputs from SG-Networks. These were incorporated in the final template at 3GPP. 3GPP OPs are expected to transpose relevant 3GPP specifications for IMT M.1457 (IMT 2000) technologies by September 2018.

Participation level of representatives from TSDSI member organizations in 3GPP meetings in this period is as follows:

Group	No. of Meetings	No. of Participants
RAN	10	128
SA	11	59
CT	8	55

Suresh Chitturi, TSDSI Governing Council member, Director for Standards at the Samsung Research Institute in Bengaluru, has recently been elected as new Chairman of the 3GPP SA6 Working Group (Applications). This group is responsible for 3GPP application-layer standards for both mission-critical (e.g. PPDR, Railways) and non-mission critical applications (e.g. V2X), as well as APIs for northbound applications.

**oneM2M**

Five (5) contributions from TSDSI member, C-DOT, were AGREED in oneM2M meetings in this period.

oneM2M specification -TS0001 on Functional Architecture has been approved as ITU-T Recommendation Y.4500.1 on January 13, 2018. TSDSI has already transposed all oneM2M Specifications into TSDSI Standards (*visit <https://tsdsi.in/onem2m/>*).

**Other Affiliations**

TSDSI signed a MoU with IEEE-SA. Details of possible joint activities are currently being worked out.

TSDSI is in final stages of signing MoUs with 5GIA and ARIB.

**Liaison Statements Summary:**

Various Liaisons (LS) of TSDSI can be viewed at <https://tinyurl.com/yd8c5obq>. The salient LS are listed below:

LS	LS Subject
TSDSI to ITU-R	TSDSI LS to ITU-R informing intent to submit RIT/SRIT enhancements over 3GPP specifications for IMT 2020 technologies.
TSDSI to DoT/ TRAI/WPC/ TEC	An LS was sent to DoT/WPC/TEC/TRAI highlighting the work that has been initiated on the 60Ghz Backhaul requirements; interference profiles etc.

“oneM2M is not Complex, it is Complete.”





# TSDSI GENERAL UPDATES

## Governance

The 20<sup>th</sup> Governing Council meeting was held on March 13, 2018 in New Delhi.

## Finances

The annual membership fee for various categories stands revised, w.e.f. April 1, 2018 for FY 2018-19. The revised fee structure can be viewed on the website at <https://tsdsi.in/membership/>.

The Organizational Partner (OP) part of the 3GPP membership fee for 2018 will be paid from grant-in-aid from DoT and TSDSI funds. Individual Membership (IM) part of the 3GPP fee will be divided equally among IMs.

## IT and Website

The IT Infrastructure is being migrated to SaaS based environment. Parallel run for the redesigned website and the document management repository is in progress.

## Outreach and Engagements

Ms Pamela Kumar, Director General (DG) participated in a discussion on "Leveraging Digital Technologies for Industrial Collaboration between India and Germany" organised by the German Federal Ministry for Economic Affairs and Energy in Bengaluru on January 18, 2018.



TSDSI supported organization of Faculty Development Program on 4G/5G LTE at the Govt. Polytechnic, Mumbai on February 5-9, 2018.

Mr Vijay Madan, Advisor- Services and Solutions, participated in the ETSI Security and Lawful Interception (LI) Workshop held in New Delhi on February 8, 2018.

Director General participated in a joint DoT and TSDSI session on "5G Initiatives in India and Telecom Standardization: Role of TSDSI" at the NCC 2018 conference held in IIT Hyderabad on February 27, 2018.



DG, participated in a Panel Discussion on "Policy, Regulatory and Standardization Issues as India is becoming a Global Manufacturing Hub for Mobile, M2M and IoT Devices" at the TEPC India Telecom 2018 Conference in New Delhi on February 23, 2018.

DG moderated a session "Standardization & Framework - a need for making IoT successful" at the Convergence India 2018 conference held in New Delhi on March 8, 2018.

Advisor-Networks participated in a panel discussion in the National Workshop on WRC19 Preparations conducted by ITU-APT Foundation of India in New Delhi on February 22, 2018.

DG and Advisors have been participating in various meetings of TEC and BIS, QCI, FICCI, CII, TRAI etc.

**UPDATES**



## Operational Matters

TSDSI Rules & Regulations (R&R) will be amended suitably to enable DoT to nominate additional fifth member, preferably from Finance (in addition to four nominated members). However, the additional member so nominated shall not increase the combined voting rights of DoT through its nominated members as per the extant clauses of R&R.

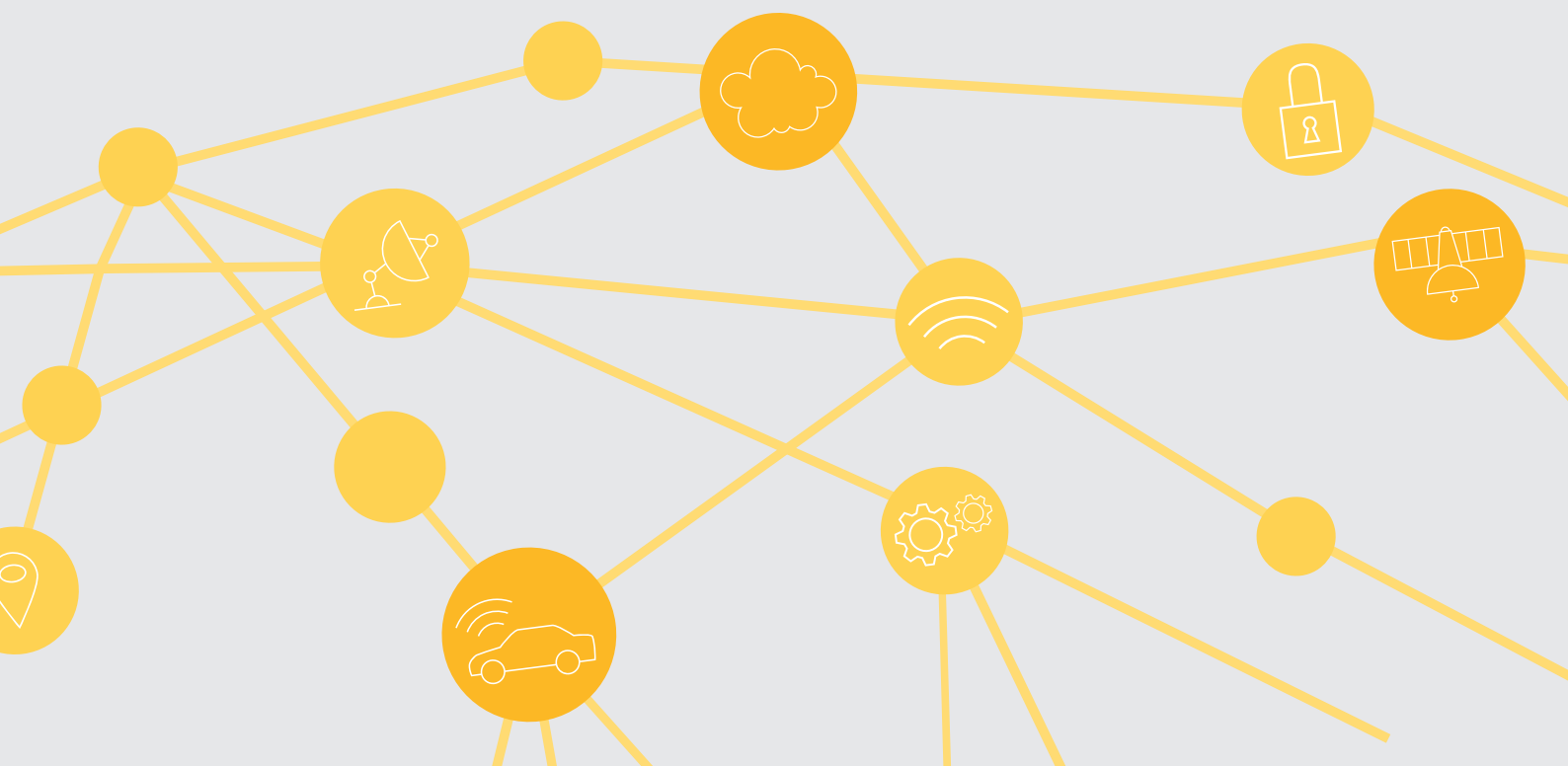
The following Committees have been constituted as Standing Committees:

Committee	Chairperson
GC SC on Budget and Finance	Mr R K Pathak
GC SC on Rules and Regulations	Mr R K Pathak
Standing Committee on IPR Matters	Mr A K Mittal
Standing Committee on Outreach	Mr Amit Gupta
Standing Committee on Roadmap	Mr Suresh Chitturi
Standing Committee on Standardization	Dr Kumar Sivarajan
Standing Committee on Transposition	Mr Babu Narayanan

## Strategy Initiatives

TSDSI is actively involved in the activities of 5G India 2020 High Level Forum. The forum has following task forces. :

Task Force	Convener
Make India a Technology Supplier	Prof. Paulraj
Spectrum Policy	Prof. Abhay Karandikar
Regulatory Support Policy	Mr. Rajan Mathews
Educational / Awareness Promotion	Ms. Pamela Kumar
Attract Major 5G Trials	Secretary Telecom/ Mr. C.S. Rao
Adoption of Applications Layer Standards	Mr Anantha Krishnan
Set up Use Case Labs and Info Hub	Ms. Pamela Kumar
Participate in Global Standards and Forums	Prof. B Ramamurthi



**EVENTS**



## TSDSI Meetings

Nine (9) meetings of the Technical groups were held in the reporting period, detailed elsewhere in this report. The schedule of the upcoming TP meetings in Calendar year 2018 is as below:

- May 10-11, 2018
- June 6-8, 2018
- September 6-7, 2018

## oneM2M Activities in India

A multicity tutorial event based on open source implementation of oneM2M, developed by French Research Lab, LAAS-CNRS was conducted at IIT Delhi, IIIT Hyderabad, IISc Bengaluru and UIET Chandigarh, from February 12 to 19, 2018 under the aegis of the Partnership Project, with support from key resources from oneM2M, ETSI, TSDSI and the host organizations. The Tutorial resource team comprised Professor Thierry Monteil and Dr Samir Medjiah from LAAS CNRS, INSA, University of Toulouse. A Massive Online Open Course (MOOC) material to go with the tutorial was prepared by the Resource Experts. It is available at: Web site: <https://open.insa-toulouse.fr>, Course: Internet of Things with oneM2M standard. The tutorials were very well attended and offered opportunities to the participating institutions to explore joint research projects and exchange programs with the visiting resource team. A hackathon was also conducted in IISc Bangalore, where twelve (12) teams participated. The winning team was awarded a free trip to Estonia to attend their Startup event. SAP Labs selected three (3) teams for further mentoring under their Startup Labs initiative.



## 3GPP Activities in India

An adhoc meeting of 3GPP SA3 LI was held on January 30 to February 2, 2018 in New Delhi.

Meetings of the 3GPP RAN, SA and CT groups were held in Chennai from March 19-23, 2018. The FFG meeting was also held in Chennai on March 21, 2018.

*This issue covers activities from January 1, 2018 to March 31, 2018.*

# TSDSI MEMBERSHIP UPDATE

TSDSI welcomes IIT Bhilai and IIIT Hyderabad as members. IIT Bhilai is actively championing ICN activities within TSDSI. IIIT-H, with its strengths in communication technologies, IoT protocols, signal processing and AI, is looking to engage with TSDSI in the 5G technologies and Industry 4.0 activities.

TSDSI member list can be viewed here [https://tsdsi.in/present\\_members/](https://tsdsi.in/present_members/).

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

## 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).

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