

NEWSLETTER

Telecommunication Engineering centre

MESSAGE



From the desk of....

Sr. DDG & Head, TEC

Dear Readers,

It is a matter of great pleasure to release the April-June, 2022 issue of the TEC Newsletter.

I believe that this newsletter will serve as a window through which the complete profile of the TEC and its achievements, progress made and co-curricular activities during the stipulated period is being showcased.

We at TEC are committed to provide an ambience to standardize new telecom technologies and products and strengthen country's testing and certification infrastructure.

We look forward to your continued support and suggestions to further improve the Newsletter.

TEC wishes good health to all its readers; stay safestay healthy.

Best Wishes and Warm Regards,

Ritu Ranjan Mittar

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TEC WELCOMES NEW MEMBER (SERVICES), DCC

Telecommunication Engineering Centre (TEC) welcomes Dr. Mahesh Shukla as Member (Services), Digital Communication Commission (DCC), Department of Telecommunications on his joining the new assignment on 1st August 2021.

Member (Services), DCC, Dr. Mahesh Shukla visited TEC on 25th August and 26th August 2022.





#Did You Know:

New India is projected to become the 2nd largest smartphone market in the world by 2025.

TEC bids farewell to Member (Service), DCC Sh. Ashok Kumar Mittal on his superannuation from service on 30th April 2022



A meeting to review the progress of 'Secure India' project of the DoT on 23rd June 2022. After implemention of this project, the security of Indian Telecom Networks would be the among the best in the World.







I. EMERGING TECHNOLOGIES

The term usually refers to technologies that are currently being developed, or which are expected to be available within the next five to ten years, and is usually reserved for technologies that are causing significant social or economic impact or are expected to make.

Here we briefly cover the following three Emerging Technologies:

- Artificial Intelligence
- Machine Learning
- 5G network

Artificial Intelligence:

Artificial intelligence is a field that combines computer science and robust datasets to enable problem-solving. It also encompasses sub-fields of machine learning and deep learning, which are frequently mentioned in conjunction with artificial intelligence. These disciplines comprise of AI algorithms which seek to create expert systems which make predictions or classifications based on input data.

Al leverages computers and machines to mimic the problem-solving and decisionmaking capabilities of the human mind.

Al programming focuses on three cognitive skills: learning, reasoning and self-correction.

- 1. Learning Process: This aspect of Al programming focuses on acquiring data and creating rules for how to turn the data into actionable information. The rules, which are called algorithms, provide computing devices with step-by-step instructions for how to complete a specific task.
- 2. Reasoning Process: This aspect focuses on choosing the right algorithm to reach a desired outcome.

3. Self- correction process: This aspect is designed to continually finetune algorithms and ensure they provide the most result possible.

AI, Machine learning and Deep Learning:







One of the important ethical issues related to AI is its fairness. TEC has initiated consultations on framing guidelines and Standard Operating Procedures for assessing fairness of various AI systems.

7-5

5G

- Fifth-Generation technology, often known as 5G Technology is a new addition to broadband services.
- 5G wireless technology is meant to deliver higher multi-Gbps peak data speeds, ultra low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users
- 5G enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices.
- Higher performance and improved efficiency empower new user experiences and connects new industries.

Where is 5G being used ?

- Enhanced mobile broadband (eMBB)
- Mission-critical communications (URLLC)
- Massive IoT (mMTC)

Use Cases of 5G:



The Role of AI in 5G Future

- 5G and AI are two synergistic, essential ingredients that are fueling future innovations.
- Applying AI to solve difficult wireless challenges and deliver new values.
- Al plays an expanding role in the evolution of 5G towards 6G.

Blockchain:

- Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack or cheat the system. This digital ledger of transactions is duplicated and distributed across the entire network of computer system on the block chain.
- It is a decentralised platform or structure which stores transactional records (blocks) of the public in various database (chain), in a network connected through peer-to-peer nodes.
- It eliminates the need of a trusted party to facilitate digital relationship.
- Blockchain technology is the backbone to all digital currencies i.e. cryptocurrencies.
- It is a data structure that holds transactional records and while ensuring security, transparency and decentralization.
- Chain or records stored in the form of blocks which are controlled by no single authority.
- A blockchain is a type of diary or spreadsheet containing information about transactions. If a transaction is approved by a majority of the nodes then it is written in to a block. Each block refers to the previous block and together make the blockchain.

Blockchain Use cases in Telecom:

- Roaming and settlement;
- Identity management;
- SLA monitoring;
- Prevention of phonetheft;
- Mobile Number Portability (MNP)

by FN division



2. IOT SECURITY

Internet of Things (IoT) is one of the fastest emerging technologies across the globe, and being used to create smart infrastructure in various verticals such as Power sector. Automotive/ Intelligent Transport System, Safety & Surveillance, Remote Health Management, Education. Agriculture, Aquaculture, Industry 4.0, Homes/ Buildings, e-Governance etc. Some of these verticals work as a pillar for Smart Villages and Smart Cities, providing enormous beneficial opportunities to society, industry, and consumers. IoT will revolutionize and change the way all businesses, governments, and consumers interact with the physical world. Security of IoT domain ie end to end is important for the proliferation of IoT / Smart city domain.

There may be 26.4 billion IoT devices in service globally by 2026. Out of this, approximately 20% will work on cellular technologies [Ericsson mobility report, June 2021].

As per the National Digital Communication Policy (NDCP) 2018 released by Department of Telecommunications (DoT), an eco-system is to be created for 5 billion connected devices by 2022.

Some of the IoT based cyber-attacks made on critical infrastructure across the globe:

(a). In June 2020, Cyber-attack hit all US mobile phone operators sparking outages.(b). In Year 2017, cyber-attack was on critical infrastructure in Ukrane, resulting in shut down of hospital, shipping communication and shut down of distribution center.

(c). DDoS attack in Smart buildings in Finland in 2015, resulting in shut down heat and hot water systems.

(d). Hacking of Smart cameras etc.

These hackings may be due to various reasons like insecure devices / networks,

insecure OS, weak password, etc. In view of this, security of all the elements in IoT ecosystem ranging from devices to the applications is very important as the vulnerabilities/ hacking of the devices/networks being used in daily life would harm companies, organisations, nations and more importantly people. It may cause total collapse of the services, thereby creating panic and may also result in chaos. Cyber-attack in any critical infrastructure may be catastrophic.

As per the research report published by Markets and Markets, the global Internet of Things (IoT) Security Market size is expected to grow from USD 12.5 billion in 2020 to USD 36.6 billion by 2025, at CAGR of 23.9 percent during the forecast period.

IoT architecture:

The IoT ecosystem may have M2M devices, Gateways, Communication technologies (wired / wireless), Big data and Process management, IoT platform, User interface (web, Mobile, HMI) and end to end security.

Every segment of the IoT ecosystem should ensure its own security. IoT devices/ Gateways should have the security features from the time of designing.



As all the devices are connected to the platform directly or through the gateway on various communication technologies, communication interfaces are required to be tested as per the related specifications and guidelines.



All the IoT/ Smart cities Platform should have at least the features (common service functions) namely Registration, Discovery, Security, Data Management & Repository, Subscription & Notification, Application & Service Management, Communication Management and Delivery Handling and Semantics. These functions may be exposed to the network components such as devices/ gateways as well as to the applications.

Standardisation work in progress at international level:

A number of international organizations such ITU, ISO/ IEC JTC1, CEN/ CENELEC, oneM2M, 3GPP, ETSI, IEEE, NIST, GSMA etc. are working on standardization in the IoT domain.

ITU-T is having the Study Group 20 on IoT and its applications in Smart Cities & communities, and having Q6/20: Security, privacy and Trust.

ITU-T Study Group 17 is on Security and having Q6/17 : Security for telecommunication services and Internet of Things (IoT) and Q11/17: Generic technologies (such as Directory, PKI, formal languages, object identifiers) to support secure applications.

ITU-T SG-20 as well as SG-17 have released a series of standards related to IoT Security and the work is also in progress on related work items.

ITU-T Recommendation X.509 (10/2019) and cor.1 (10/2021): Information technology - Open Systems Interconnection - The Directory: Public-key and attribute certificate frameworks provides Public Key Infrastructure (PKI) for device Identity. PKI provides a scalable to declare unique Identity and way authenticating the messages of communicating parties. This standard is being used globally and quite important for secure on boarding of IoT devices using secure certificates.

oneM2M has released specifications in IoT domain especially related to the platform. oneM2M Release 2 has been adopted by ITU-T SG-20. TEC has also adopted oneM2M Release 2 and Release 3 as National Standards.Its standard TS-0003 is on Security solutions.

ISO/IEC JTC1 SC27 on Information Security, cyber security and privacy, has released standards on IT Security whereas on IoT Security, work is in progress.

ETSI has released ETSI TS 103 645: Cyber Security for Consumer Internet of Things in 2020.

GSMA has released several guidelines related to security and recently released IoT SAFE (IoT SIM Applet For Secure Endto-End Communication) enables IoT device manufacturers and IoT service providers to leverage the SIM as a robust, scalable and standardised hardware Root of Trust to protect IoT data comm.

NIST (National Institute of Standards and Technology)'s Cybersecurity for the Internet of Things (IoT) program supports the development and application of standards, guidelines, and related tools to improve the cybersecurity of connected devices and the environments in which they are deployed. In this NIST has released a series of documents.

All the important specifications, regulations and the best practices are being covered in brief in the draft documemnts on security by design principles for IoT device manufacturers, expected to be released in near future.

TEC initiatives in IoT domain:

TEC has released eighteen technical reports in the last 5-6 years with the



outcome intended to be used in policy/ standards. These Technical Reports are in various verticals such as Power Sector, Automotive, Health care, Smart Cities, Smart homes, Smart Village & Agriculture, Communication Technologies, Security etc. Out of these three technical reports are on Security.

- Framework of National Trust Centre for M2M/IoT Devices and Applications, released in March 2022.
- Code of practice for Securing Consumer IoT, released in August 2021.
- Recommendations for M2M/ IoT Security, released in 2019.

TEC also released a report on TEC Initiatives in M2M/ IoT Domain- An overview having details in brief of the worked carried-out in TEC in M2M / IoT domain.

All the technical reports are available on https://www.tec.gov.in/M2M-IoT-technical-reports .

Important outcomes of these technical reports such as 13-digit numbering scheme for SIM based devices/ Gateways, Embedded SIM, IPv6, Common service layer, Spectrum for low power wireless communication technologies, C-V2X, Security, vulnerability management etc. are the part of policies/ standards.

Guidelines available in TEC Technical Report Code of practice for Securing Consumer IoT provides a direction to the related stakeholders in provisioning of secured consumer IoT devices and also help in reducing the vulnerabilities. First three guidelines of this document as listed below are quite important for managing security and vulnerabilities related issues:

- No universal default passwords i.e. Ban default password.
- Implement a means to manage reports of vulnerabilities.
- Keep software updated

The DoT has issued the Office Memorendum in July 2022 to all the ministries of Government of India and telecom service providers with the request for wider circulation of TEC technical report on Code of practice for Securing Consumer IoT to all related stakeholders (IoT device manufacturers, IoT service providers System integrators, Application developers etc.) for voluntary adoption of the guidelines available in this document and provide feedback.

It is worth mentioning that IoT Security Foundation (IoTSF) in its annual report on Vulnerability Disclosure released in February 2021, mentioned that there is a slight rise in vulnerability disclosure by the IoT device manufacturers in 2020 (18.9%) as compared to that in 2018 (9.7%). Survey was done on 332 IoT device manufacturers from Europe, Asia and north America.

The technical report on Framework of National Trust Centre for M2M/ IoT Devices and Applications visualises the implementation of National Trust Centre in a phased manner for managing/ addressing the vulnerability related issues of the IoT devices reported by IoT/ Smart city platforms working in the network by IoT device manufacturers / researchers.

Conclusion:

In view of the various hackings/attacks on IoT networks, IoT security is the prime need to safeguard connected devices and networks in IoT domain. Allowing devices to connect to the internet opens them to a number of serious vulnerabilities if they are not properly connected.

In addition to conventional security solutions, it is required to provide built-in security in devices for dynamic prevention, detection, diagnosis, isolation, and counter measures against successful breaches.



STANDARDS RELEASED

 Test Guides of Conditional Access System (CAS) and Subscriber Management System (SMS) for Broadcasting and Cable services (No. TEC 57015:2022) were released on 15-06-2022 by the Chairman TRAI, Secretary (Telecom) and Secretary (I&B).

<u>Click here</u> for test guide document.

- ER (New)- Hybrid Set Top Box (No. TEC30042 207)- issued on 10.05.2022.
- ER (New)- The ER of LAN Switch (variant: L2 Unmanaged Switch))(No. TEC37942207:2022).
- Test Guide (Revised)- The Test Guide of revised standard for GR on Router for MPLS based Transport Network(No. TEC48051:2022).
- National Plan Documents (New)- The National Plan for Distribution of Indian Standard Time to LSPs of DoT(No. TEC49189:2022).

The Release function for "Test Guide Document for CAS and SMS for Broadcasting sector" prepared by Telecom Engineering Centre (TEC) was held on 15/06/2022 in TRAI HQ New Delhi in the presence of Chairman TRAI, Secretary (I&B), Secretary (Telecom) and Sr. DDG TEC.





STANDARD ADOPTION

- 3GPP Release-15 & Release-16 standard adopted as National Standards by TEC.
- Adopted 3GPP specifications (Release 10 to Release 16) related to LTE-Advanced corresponding to ITU – R M.2012 Rev. 5 standard adopted as National Standards by TEC.

STANDARD WITHDRAWN

- GR (Withdrawn)- Voucher Management and Roaming Recharge Service for Mobile Networks (No. TEC 23000:2006)
- GR (Withdrawn)- Prepaid Scratch Cards (No. TEC 23030:2008)
- GR (Withdrawn)- LTE & EPC (No. TEC 22100:2011)
- GR (Withdrawn)- LBSS for CDMA 2000 N/W (N0 TEC 202050:2006)



CAS and SMS for Broadcasting sector" prepared by Telecom Engineering Centre (TEC) was held on 15/06/2022 in TRAI HQ @TRAI New Delhi in the august presence of Secretary (I&B) and Secretary (Telecom).





TEC CONTRIBUTIONS TO ITU

ITU-T SG2:

Subject: Operational aspects of service provision & telecommunication management

Total 8 contributions from India were submitted and presented (highest by any member country) to ITU-T SG2 in its meeting held in May 2022.

- 1. Proposed revised baseline text for TR.MMWF: "Methodologies to mitigate Wangiri Fraud" (2 contributions)
- 2. Proposed revised baseline text for E.370: "Service principles when public circuitswitched international telecommunication networks interwork with IP-based networks"
- 3. Proposed revised baseline text for TR.OTTnum: "Current Use of E.164 Numbers as Identifiers for OTTs"
- 4. Proposed revised baseline text for TR.PCM: "Permitted call masking"
- 5. Proposed new work item on "Tamper proof IoT device's Identity life cycle Management"
- 6. Telecom Fraud Prevention/ Management
- 7. Calling Line Identification Spoofing

Contributors: Rajeev Kumar Tyagi, DDG (FN); Piyush Chetiya, Dir (FN); Rajmohan Meena, ADG (FN); Tejpal Singh, Dir (DoT); V.K. Roy, Dir (MT); Pranav Singh, IDEMIA



TEC/ DoTOfficers Participating in SG2 meeting





Sh. R. R. Mittar, Sr. DDG, TEC chairing the meeting of ITU-T SG11 during 6-15 July 2022 at Geneva



Sh V.K. Roy, Vice Chair ITU-T SG2 during interaction with management team of SG2

ITU-T SG 3

Tariff and accounting principles and international telecom/ICT economic and policy issues

Sh Avinash Agarwal, DDG (C&B) TEC attended the SG3 meeting at Geneva from 23-27 May 2022 as part of Indian delegation . He was appointed as the SG3 Liaison officer to ITU-T SG9 and as Editor of draft Recommendation D.IoT/M2M Roaming. He also presented a contribution on Technical Report on Roaming Aspects of IoT and M2M.



TEC CONTRIBUTIONS TO ITU

ITU-T SG5

EMF, environment, climate action, sustainable digitalization, and circular economy

Following contributions submitted to ITU-T SG5 during its meeting held from 21st June, 2022 to 1st July, 2022 -

- 1. Proposal of the content of the draft ITU-T Rec K.devices (Q 3/5). (Outcome: Approved by Working Party (WP)-1 and suggested text included in the draft recommendation).
- 2. Proposal for the revision ITU-T Rec K.80 "EMC requirements for telecom network equipment (1-6 GHz)" (Q 4/5). (Outcome: Approved by WP1 and new work item created for revision of K.80. Also, Shri. Anshul Kumar Gupta has been made Editor of the recommendation).
- 3. Proposal for creation of new work item on Sustainability by design principles for reducing e-waste (Q7/5). (Outcome: Suggestion appreciated by WP2 and is to be incorporated in other draft ITU-T Rec on ewaste and circular economy. Also, Ms. Bhoomika Gaur has been made Editor of draft Recommendations L.ICT_PROCURE and L.e-waste-collection).

ITU-R WORKING PARTY 5D

IMT Systems

Following four contributions submitted for 41st meeting held from 13-24 June, 2022

- 1. Proposals for the working document towards a preliminary draft new report ITU-R M.[IMT.INDUSTRY].
- 2. Revision of work plan for development of a preliminary draft new report ITU-R M. [IMT.INDUSTRY].
- 3.IMT-2030 Timelines.
- 4.IMT-2030 Vision document proposed updates on PDNR on M.[IMT.2030 VISION AND BEYOND].

(Outcome: All the above contributions were received well and were suitably incorporated in the Working documents of Working Party 5D)

ITU-T SGI2:

Performance, QoS and QoE)

Following 3 contributions were submitted and presented to ITU-T SG12 meeting held from 07-17 June 2022, by Sh Abdul Kayum DDG (6G).:

- E.AIQ Artificial Intelligence Quotient (Al-Q) for indexing and rating C-AI algorithms (C-52R1)
- A new approach to mobile network quality of experience testing (C-49 Rev.1)
- A new approach to measure, evaluate and label QoE in a building to ITU-TSG12 (C-46 Rev.1)

Above contributions, especially, C-46 Rev.1 gathered a lot of interest. It received the support of 11 countries, 6 companies, one academic institute, and an operator. This contribution has been accepted for study and has been titled ITU-T E.MVS "Mapping and visualization strategies for the assessment of connectivity and QoS".

ITU-T SG20

IoT and smart cities and communities

- Mr. Sushil Kumar, DDG (IoT) participated as Vice-chairman in the 2nd meeting of SG20 Focus Group on 'AI and IoT for Digital Agriculture (FG-AI4A)', 9-10 May 2022. IoT division submitted one contribution on 'Use Cases for digital agriculture' in this meeting.
- DDG(IoT) presented the contribution on Y.SRC "Requirements for deployment of smart services in rural communities" in ITU-T SG-20 Rapporteur group meeting held virtually, 7-11 April 2022.



TEC CONTRIBUTIONS TO ITU

ITU-T SGI3

Future networks and emerging network technologies

Following four Contributions were submitted to ITU-T SG13 :

 Machine Learning Sandbox in future networks including IMT-2020" (formerly Y.ML-IMT2020-SANDBOX) under Q20/13.

<u>Outcome</u> – Consented for recommendation

 Trust Registry for Devices and Applications: requirements, architectural framework" under Q16/20;

Outcome- Accepted as new work item

- Architectural framework for NGN evolution for IMT-2030 by extending SDN paradigm to the Network control plane under Q2/13. <u>Outcome</u> –To be submitted in the next meeting with modifications.
- Use cases for Autonomous Networks (formerly Y.Supp-AN-Use Cases) under Q20/13;

<u>Outcome</u> - Consented for recommendation

TEC CONTRIBUTIONS TO ISO/IEC

- Mr. Sushil Kumar, DDG (IoT) participated as head of Indian delegation in 11th Plenary & WG meetings of ISO/IEC JTC 1/SC 41 (Internet of Things and Digital Twin), 30 May-10 June 2022, which was attended by several industry members including Ms. Ashima, Dir (IoT) and Ms. Namrata Singh, ADG (IoT) as delegates.
- Mr. Sushil Kumar, DDG (IoT) was included as an expert in the Advisory Group on Impact of standardization activities of other groups on SC 41, along with other global experts.

NATIONAL WORKING/STUDY GROUPS MEETINGS/ UPDATES

Corresponding to ITU Study Groups

NWG-2: Two meetings of NWG-2 were held during Aprl-June 2022 (Dates- 22 April, 28 June 2022).

NWG-3: The first meeting of the NWG-3 was held on 04 May 2022.

NWG-5: Two meetings of NWG-5 were held (Dates- 12 May, 30 May 2022).

NSG-5: One meeting of NSG-5 held on 23 May 2022.

NWG-9: Two meetings of NWG-9 were held (Dates- 10 May, 10 June 2022).

NWG-11: Two meetings of NWG-11 were held (Dates- 25 May, 15 June 2022)

NWG-12: Three meetings of NWG-12 were held (Dates: 25 April; 16 May; 23 June 2022)

NWG-13: Two Meetings of NWG-13 were held during Aprl-June 2022 (Dates- 26 May; 13 June 2022.)

NWG-15: The first Meeting of NWG-15 was held on 17 May 2022

NWG16: The introductory meeting of NWG-16 was held on 20 July 2022.

NWG-17: Two meetings held on 09 May 2022 and 06 July 2022 respectively.

NWG-20: Three meetings of NWG-20 were held on 23rd May 2022, 14th June 2022 and 23rd June 2022.



TESTING AND CERTIFICATION

MANDATORY TESTING (MTCTE)

Indian Telegraph (Amendment) Rules, 2017 provides that telecom equipment are to be mandatorily tested and certified against EMI/EMC, Safety, Technical, Security and other requirements like SAR, IPv6 etc before its sale, import or use in India.

a) Certificates issued:

- Quarter Q1 =58
- Total Certificates issued =263

b) Status of OEM registration:

- Indian OEM =88
- Foreign OEM =123

More details about MTCTE are available at https://www.mtcte.tec.gov.in/

CAB DESIGNATION ISSUED

CAB designation Issued -

- New = 05
- Renewed = 06

Total Designanted CABs as on 30.06.2022

- = 62
- For Safety Testing = 44
- EMI/EMC Testing = 33
- SAR Testing = 04
- Equipment operating in 2.4 & 5 GHz (Wi-Fi) = 07
- Environmental Testing = 24

VOLUNTARY TESTING

- Certificate issued in Q1 = 6 (5 Type Approval Certificates (TAC), 1 Technology Approval)
- Total certificate issues from 01.04.2021 to 31.06.2022 = 20 (12 TAC, 4 IAC, 1 Certificate of Approval (CoA) and 3 Technology Approval)

UPDATES

- In order to make CAB Designation process online and reduction of Compliance burdens, TEC vide letter No.4-10/2021-MRA/TEC dated 26.05.2022 has notified about acceptance of application CAB Designation/ Renewal for of Designation in online mode only on the NSWS portal, developed by Invest India, Govt. Organisations/ except from Institutes etc.
- Extension of mandatory certification of MTCTE Phase III & IV products by one year i.e. from 01.07.2022 to 01.07.2023 vide notification dated 13.06.2022.
- Five products were excluded from the scope of mandatory testing and certification vide Gazette notification dated 24.05.2022 namely Smart Watch, Smart Camera, POS device, Mobile Handset and Server.
- Validity of regular MTCTE certificate has been enhanced from 5 to 10 years vide notification dated 01.07.2022 for reducing compliance burden on Industry and Ease of Doing Business.
- The Recertification Audit for ISO 9001:2015 (External) of TEC, New Delhi was conducted on 30th June, 2022 by Certification agency M/s URS Certification Limited, Noida.
- The Certification agency M/s URS Certification Limited, Noida has issued ISO 9001:2015 renewed Certificate of Registration(Certificate No.107102/A/ 0001/UK/En) to TEC, New Delhi valid from 20.08.2022 to 19.08.2025.
- Technology approval of GPON mini-OLT system (Model number Office OLT-2) developed by C-DoT.



KNOWLEDGE DISSEMINATION

IMPORTANT MEETINGS & ACTIVITIES

 An MoU was signed by TEC & M/s VVDN on 10.05.2022 in the presence of Shri Nizamul Haq, Member (S), DoT. The signing of MoU will facilitate registered Startups and MSMEs working in the field of Open RAN to get their product tested at the existing lab of M/s VVDN at Gurugram for interoperability among Open RAN components(RU/DU/CU) from different vendors along with radio conformance, protocol and interface testing as per defined Open RAN Standards at a tariff to be decided with mutual consent among MoU partners. The product offered for testing will be certified by TEC.

For more details <u>click here</u>



- DDG (C&B) TEC chaired the meeting of Working Group on Guidelines for Anonymization of Data constituted by CDAC, MeitY on 21.04.2022.
- Site visit for assessment of CAB (Conformity Assessment Body) designation case of M/s STL, Aurangabad, completed against following: (i) ER for Optical Fibre (No. TEC70012008) (ii)Standard for GR of Raw Material for manufacturing Optical Fibre Cable (TEC 89010:2021)
- Site visit for assessment of CAB (Conformity Assessment Body) designation case of M/s STL, Silvasa, completed against following: (i) ER for Optical Fibre (No. TEC70012008) (ii) ER for Optical Fibre Cable (No. TEC70022110) (iii) Standard for GR No. TEC 89010:2021 for Optical Raw Materials used in Manufacturing of Optical Fibre Cable.

IMPORTANT MEETINGS & ACTIVITIES

- The Security Audit of TEC website through CERT-IN empanelled agency was done during 15-25 March 2022 and the Security Audit Certificate is awarded to TEC website. The Security Audit Certificate and Security Audit Report of TEC website was shared with NIC. NIC has given Security Clearance for TEC website on 22.04.2022.
- Virtual meeting of Consultative Committee for adoption of oneM2M Release 3 specifications was held on 20th May 2022, in which the report of the Consultative Committee was finalized and then submitted to TSAC.
- DDG (IoT) chaired the 20th meeting of BIS Sectional Committee, LITD 27 on 'Internet of Things and Related Technologies' on 16th May 2022. ADG (IoT) participated in this meeting as a member.
- DDG (IoT) presented on IoT Security and National Trust Center in 7th Japan-India Joint Working Group (JWG) meeting held virtually on 13th May 2022.
- DDG (IoT) chaired and moderated the session on the inauguration of C-DOT Center of Innovation (CoI) in a virtual event on 17th May 2022.
- Divisional Manual of Convergence & Broadcasting Division was issued on dated 21-06-2022.
- A Management Review Meeting (MRM) for ISO 9001:2015 was conducted on 10th June 2022 at"Manak" Conference hall, TEC. The MRM was chaired by Sr. DDG & Head, TEC.



HR ACTIVITIES

TEC WELCOMES ON NEW JOINING

- Shri Santosh Kumar Singh, Director(IMP&TEP)
- Shri Jasvir Singh Panesar, Director(IT-II)
- Shri A.K.Singh, Director(Admin.)
- Shri Rakesh S.Desai, Director(C&B-II)
- Smt. Rekha Singh, DDG

CONGRATULATIONS ON PROMOTION

• Shri Ashutosh Pandey, Sr.DDG(Radio) TEC- SAG to HAG

TEC BIDS FAREWELL ON TRANSFER

- Smt. Sunita Chandra, DDG(P&T) TECtransfer to J&K LSA
- Shri Parmatma Rai, Director(CL), TEC transfer to Utter Pradesh East LSA
- Shri A.K. Singh, TEC- transfer to TRAI HQ as Advisor.
- Sh. Kulwinder Kumar, DDG(TSD) TECtransfer to Himachal Pradesh LSA

HAPPY RETIREMENTS 💐

- Shri Krishna Babu Gupta, DDG(IC) TEC
- Shri Sudhir Bhandari, DDG(SD) TEC

TRAINING

- Training on Security Audit for Telecom Devices, for Director (TS), ADG(TS), on 5th May,2022 and 6th May, 20222.
- Capacity Training in Control Lab for 32 officers from TEC was provided.

Attachment of Officer Trainees of JTO-2019 (RL) and JTO-2020 batch to TEC

- Training provided to Officer Trainees of JTO-2019 (RL) and JTO-2020 batch during their four week attachment to TEC w.e.f. 06.06.2022.
- Training covers general overview of TEC and exposure to work and functioning of various divisions of TEC, overview of national as well as international standardization in the field of Telecom sector.

हिंदी गतिविधियाँ

राजभाषा कार्यान्वयन समिति की त्रैमासिक बैठक का आयोजन किया l

दूरसंचार अभियांत्रिकी केंद्र, नई दिल्ली में 14 से 29 सितंबर, 2022 तक हिंदी पखवाड़ा का आयोजन किया जा रहा है ।

हिंदी पखवाड़ा का उदघाटन 14.09.2022 को प्रात: 11:00 बजे एवं पुरस्कार वितरण/ समापन समारोह दिनांक 29.09.2022 को 02:30 बजे डॉ. अब्दुल कलाम सभागार में वरिष्ठ उप महानिदेशक, टी.ई.सी. महोदया के कर कमलों द्वारा किया जायेगा ।



UPDATES

Gati Shakti Sanchar Portal

Hon'ble Minister of Communications Shri Ashwini Vaishnaw launched "Gati Shakti Sanchar Portal www.sugamsanchar.gov.in" for Centralised Right of Way (RoW) approvals at Sanchar Bhawn, New Delhi on 14th May 2022.





5G to support India's digital economy and Industry 4.0

The rollout of 5G networks promises to provide foundational support for the growth of India's digital economy and Industry 4.0, said Department of Telecommunications Secretary K Rajaraman on June 16, 2022, adding that the Centre for Development of Telematics (C-DoT) is also working towards the development of an Open RAN testbed.

Webinar on Cybersecurity for M2M/IoT by TEC:

TEC along with Delegation of the European Union to India organised a webinar on Cyber security for M2M/IoT on 12th May 2022. Experts from India, Europe and UK presented and shared their knowledge on IoT Security - Policy Prospective, Legislation & Standards and M2M/IoT Testing & Certification.

This webinar was in line with the Government of India's initiatives for the establishment of cyber security infrastructure and to safeguard and secure consumer devices, utilities, and industrial equipment. This webinar was attended by around 150 participants across the globe.



Democratizing Connectivity





UPDATES

Webinar on use cases of 5G in power Sector

NTIPRIT in collaboration with TSDSI organized a Webinar on "5G use cases in Power Sector" on 27th April 2022. The webinar was inaugurated by Sh. A.K. Mittal Member (Services). Sh. Vishal Kapoor, Joint Secretary, Min. of Power delivered keynote address during the webinar.

For video click here

launches Telecom department engagement program

DoT launched 5G Vertical Engagement and Partnership Program (VEPP), and invited Expression of Interest (EoI) to create partnerships across 5G use-case ecosystem stakeholders with an emphasis to address vertical industry needs.

Telecom Reforms: Connecting India to the World!

"45% growth in active internet users in rural India since 2019" - Nielsen Study

- 9 structural reforms, 5 procedural reforms
- 4-year moratorium on payment of dues of telecom companies
- 100% FDI allowed

World Telecommunication

& Information Society Day

Digital technologies

for older persons and healthy ageing

17 May 2022

- Reforms to boost employment, growth, and healthy competition
- Boost 4G proliferation, universal broadband access, investment in 5G



#WTISD





Amendments to Production Linked Incentive (PLI) Scheme for **Telecom & Networking Products**



- Design-led Manufacturing introduced with additional incentive rates
- Additional telecom & networking (\mathcal{A}) products added in the list of eligible products
 - Existing PLI Scheme extended by one year

#Did You Know:

Despite the pandemic, 5G cities came online at a rate of nearly two per day, with the addition of 635 new 5G cities in 2021. By the end of January 2022, 72 countries had 5G networks in place.



ABOUT TEC

- Telecommunication Engineering Centre (TEC) is an ISO 9001:2015 Organization.
- Standards Setting Organization (SSO) for telecom & related ICT sector.
- Designated Authority (DA) for implementation of Mandatory Testing & Certification of Telecom Equipment (MTCTE) and designation of Conformance Assessment Bodies (CAB) & Certifying Bodies (CBs).
- Designated Authority (DA) for Testing and certification of Conditional Access System (CAS)/ Subscriber Management System (SMS) in broadcasting sector as per TRAI notification.
- Designated Authority (DA) for Voluntary Scheme such as Type Approvals/Interface Approvals/Technology Approvals/Certificate of Approvals.
- National Enquiry point for WTO –TBT (Technical Barrier to Trade) for telecom sector.
- Complaint resolution Authority for local content under PPP-MII (Public Procurement Preference to Make in India) Policy.
- Technical arm/attached office of DoT, responsible for technical inputs to DoT and other Govt. Departments/Regulator on technology/policy matters.
- Nodal agency for all ITU-T Study group Activities and ITU-R SG5.
- TEC coordinates and participates in the meetings of standards development organizations, viz., ITU, APT, WRC, 3GPP, ETSI, IEEE etc. TEC also interacts with stakeholders and associations, viz., COAI, BIS, CII, TEMA, CMAI, FICCI, etc.
- In addition:
 - 5G Pilot Trials- Test Guide finalised in consultation with stakeholders.
 - BSNL 4G Proof of Concept (PoC)- Committee for monitoring of PoC trial being chaired by TEC.
 - oneM2M and 3GPP 5G standards of TSDSI- Adoption as National standards.

SUGGESTIONS/ FEEDBACK ARE WELCOME AND MAY BE SENT TO-

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