**भारतीय मानक ब्यूरो**

**इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी विभाग**

**BUREAU OF INDIAN STANDARDS**

**ELECTRONICS AND INFORMATION TECHNOLOGY DEPARTMENT**

**28th Meeting of Smart Infrastructure Sectional Committee**

|  |  |
| --- | --- |
| **Venue:** | Conference Room Manakalaya (Hybrid Meeting) |
| **Date:** | 25 June 2024 |
| **Time:** | 1100 hrs. |
| **Chairperson:** | Prof. Inder S Gopal (IISc, Bengaluru) |
| **Member Secretary:** | Shri Devansh Deolekar (Scientist-D, LITD) |

**Meeting Link:** <https://bismanak.webex.com/bismanak/j.php?MTID=m2584be718407a9f562222e30a9314733>

**Meeting ID:** 2514 377 9687

**Password:** LITD2828

**MEETING AGENDA**

**ITEM 0: WELCOME ADDRESS**

* 1. Welcome by Member Secretary
  2. Opening Remarks by the Chairperson

**ITEM 1: FORMAL CONFIRMATION OF THE MINUTES OF LAST MEETING**

* 1. The minutes of the last meeting of the sectional committee held on 07 August 2023 were circulated on 13 Sept 2023 (Via. BIS Module & email). No comments have been received on the minutes.

*The committee may formally confirm the minutes*

**ITEM 2: SCOPE AND COMPOSITION OF LITD 28**

2.1 **Scope:** Standardization in the field of Smart Cities (Electro-technical and ICT aspects).

To foster the development of standards in the field of electrotechnology to help with the integration, interoperability and effectiveness of city systems.

Note 1:

This has been done by:

* by promoting the collaboration and systems thinking between IEC/TCs, the SyC and other SDOs in relation to City systems standards,
* by undertaking systems analysis to understand the needs for standards and assess new work item proposals (NWIPs) related to city systems,
* by developing systems standards where needed and by providing recommendations to existing SyCs, TCs/SCs and other SDOs.

Note 2: Overall common city goals include, for example, sustainable development, efficiency, resilience, safety and support for citizens' engagement and participation. However, an individual city will follow its own approach.

Note 3: “Cities” refers to any geographically located population.

**Liaison:** SyC Smart Cities - SyC Smart Cities - Participating (P)

ISO/IEC JTC 1 WG 11 - Smart Cities - Participating (P)

*The committee may note.*

2.3 The composition of “LITD 28 Smart Infrastructure Sectional Committee” is given in [**Annexure -1.**](#bookmark=id.gjdgxs)

2.4 Structure of LITD 28 Sectional Committee

The committee has constituted several panels under it for working on the development of specific standards in the past. The title and composition of these panels are given in [**Annexure -1**](#bookmark=id.gjdgxs)**.**

The active participation of members in committee meetings is imperative to the formulation of standards and hence are requested to participate regularly in the committee meetings.

*The committee may note and review the composition.*

**ITEM 3: PROGRAM OF WORK OF LITD 28**

3.1 The program of work of LITD 28 Sectional Committee is given in [**Annexure 2**.](#bookmark=id.1fob9te)

*The committee may please note.*

**ITEM 4: REVIEW OF STANDARDS**

4.1 As per BIS rules, Indian Standards that are in existence for more than three years are required to be reviewed for Reaffirmation/Revision/Withdrawal. The standards mentioned below are due for review:

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **IS no.** | **Title** | **Remarks** |
|  | IS 18000 : 2020 | Unified Digital Infrastructure - ICT Reference Architecture (UDI-ICTRA) | Panel 6 |
|  | IS 18002 (Part 1) : 2021 | Unified Digital Infrastructure - Data Layer Part 1 Reference Architecture | Panel 12 |
|  | IS 18003 (Part 1) : 2020 | Unified Data Exchange Part 1 Architecture | Panel 1 |
|  | IS 18003 (Part 2) : 2021 | Unified Data Exchange Part 2 API specifications | Panel 1 |
|  | IS 18004 (Part 1) : 2021 | IoT System Part 1 Reference Architecture | Panel 9 |
|  | IS 18006 (Part 1) : 2021 | Municipal Governance - Part 1 Reference Architecture | Panel 8 |
|  | IS 18006 (Part 3/Sec 1) : 2021 | Municipal Governance - Part 3 Property Tax - Section 1 Taxonomy | Panel 13 |
|  | IS 18008 (Part 1) : 2021 | Smart Cities- GIS Reference Architecture | Panel 10 |
|  | IS 18010 (Part 1) : 2020 | Unified Digital Infrastructure - Unified Last Mile Communication Protocols Stack Part 1 Reference Architecture ( UDI - ULMCPS - RA ) | Panel 1 |
|  | IS 802.15.9 : 2021  (IEEE Std 802.15.9-2016) | Recommended Practice for Transport of Key Management Protocol KMP Datagrams | Superseded by IEEE 802.15.9-2021. Panel |
|  | IS 802.15.4 : 2021  (IEEE Std 802.15.9-2016) | Low-Rate Wireless Networks | Superseded by IEEE 802.15.9-2021. |
|  | IS/ISO/IEC/IEEE 8802-1X : 2013 | Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks Part 1X: Port-based Network Access Control | Superseded by ISO/IEC/IEEE 8802-1X: 2021. |
|  | IS/ISO/IEC/IEEE 8802-11 : 2018 | Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 11: Wireless Lan Medium Access Control ( MAC ) and Physical Layer ( PHY ) Specifications | Superseded by ISO/IEC/IEEE 8802-11: 2022. |

**Proposed Action:**

For sl. no. 1 to 9:

Meeting of above panels, i.e., Panel 1, 6, 8, 9, 10, 12, 13, to initiate the review of above standards.

For Sl. No. 10 to 13:

The mentioned Indian standards are adopted from the corresponding IEEE standards, as the y have been revised, the committee may decide to adopt the latest version of the IEEE standard.

***The committee may please consider.***

**ITEM 5: DRAFT STANDARDS COMPLETED WC-DRAFT STAGE**

The following documents have been issued under wide circulation:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl.No.** | **Doc.No.** | **Title** | **Last date for comments** |
|  | LITD/28/22602 | Municipal Governance Part 4: Fire No Objection Certificate NoC Section 1: Taxonomy | 30 June 2024 |
|  | LITD/28/22606 | Municipal Governance Part 5: Municipal Grievance Redressal Section 1: Taxonomy | 30 June 2024 |
|  | LITD/28/22601 | Municipal Governance Part 6: Trade License Section 1: Taxonomy | 30 June 2024 |
|  | LITD/28/22599 | Municipal Governance Part 7: Water and Sewerage Section 1: Taxonomy | 30 June 2024 |
|  | LITD/28/22596 | Municipal Governance Part 8: Building Plan Approval Section 1: Taxonomy | 30 June 2024 |
|  | LITD/28/24026 | Unified Data Exchange Part 4: Compliance Specifications Section 1: Catalogue Service | 30 June 2024 |
|  | LITD/28/21729 | Smart Cities - GIS Part 2 Self-Assessment of GIS Reference Architecture | Already Over |

If no comments are received after the due date, the committee may kindly allow us to send the document for printing.

***The committee may please consider.***

***Note:***

IS 18003 (Part 3/Sec 1) : 2024, Unified Data Exchange Part 3 API Test Suites Sec 1: Resource Access Service (21132), has been finalized and approved by the publication department for printing.

The status of the document is Ready for Gazette. The publication department has been requested to speed up the document for final printing.

***The committee may please note.***

**ITEM 6: NATIONAL & INTERNATIONAL STANDARDIZATION ACTIVITIES**

6.1 IEC SyC Smart Cities – “SyC Smart Cities” and ISO/IEC WG 11 – “Smart Cities” deals with standardization in the field of Smart Infrastructure. India is a participating member (P Member) of IEC SyC Smart Cities, ISO/IEC WG 11 and has the obligation to vote and send response on all the documents emanating from this subcommittee.

6.2 The ballots currently active have been listed in [**Annexure 3**](#bookmark=id.3znysh7)**.** The documents can be accessed through the Document repository on the BIS portal.

6.3 The Plenary and WG meetings of IEC SyC Smart Cities – “SyC Smart Cities” were held in Jinan, China, from 03.06.2024 to 08.06.2024. Indian delegation consisting the member secretary and Sh. N Kishore Narang attended the meeting virtually. Sh. N Kishore Narang shall brief the committee about the proceedings of the above meeting and the way forward for India.

***The committee may please note.***

6.3 12 SRDs (System Reference Deliverables) published by IEC SyC Smart Cities are currently active. Some of these documents may be relevant and may be considered for adoption. These standards have been listed in [**Annexure 4**](#bookmark=id.2et92p0).

***The committee may please consider****.*

**ITEM 7: CO-OPTION OF SH. AMARJEET KUMAR**

7.1 Sh. Amarjeet Kumar is the Member of LITD 28, and its panels 01, 06, 09, 11 and 14. He has been representing the committee on behalf of M/s Shrama Technologies Private Limited. He has informed BIS that he has changed his affiliation from M/s Shrama Technologies Pvt Ltd to M/s Comminent Pvt Ltd. In view of above, the committee may decide about co-option of Sh. Amarjeet Kumar representing M/s Comminent Pvt Ltd.

***The committee may please consider****.*

**ITEM 8: CO-OPTION OF ORGANIZATIONS IN VARIOUS PANELS**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Organization** | **Panel** |
| **1.** | 1. Sh. Suresh D – Sr manager , Renesas Bangalore 2. Sh. Pramod Kumar – Head application , Rabyte 3. Sh.Vikram Pochampally : Silicon Labs 4. Sh. Ravi Kumar : Edom 5. Sh. Narayan PS : Edom | Panel -1 (Last Mile Communication Protocol) |
| **2.** | National Institute of Urban Affairs:   1. Ms. Sheika Arora 2. Sh. Sushant Anand 3. Ms. Gautamai Ghumatkar 4. Ms. Aparajita Dubey | Panel -13 ( Urban Domain Standards Panel) |
| **3.** | 1. Sh. Padam Vijay: NIUA 2. Sh. Chandra Challagonda: Fiware Foundation 3. Sh. Jyotirmoy Dutta: IUDX | Panel-14 (Data Models Panel) |

Further, the committee may decide to allow the convenors of the respective panel to onboard new panel members.

***The committee may please consider****.*

**ITEM 9: PROCESS REFORMS IN STANDARDIZATION ACTIVITY OF BIS**

**9.1** Bureau of Indian Standards in its efforts to become a frontrunner organization in standardization globally has recently reformed the process. Various initiatives, boosting the standardization activity at national and international forums have been taken. A short presentation regarding the same will be delivered by the member secretary.

***The committee may please note.***

**ITEM 10: DATE AND PLACE FOR THE NEXT MEETING**

**ITEM 11: ANY OTHER BUSINESS**

**ANNEXURE 1**

**COMPOSITION OF LITD 28**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Organization** | **Member Name** |
| 1 | Indian Institute of Science, Bengaluru | Shri Inder S Gopal (Chairperson), |
| 2 | Aveva Software Private Limited, Bengaluru | Shri MSNR Harish (Principal Member) |
| 3 | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Principal Member) |
| Ms. Anupama Chopra (Alternate Member) |
| 4 | CyanConnode Private Limited, Bengaluru | Shri Manish Widhani (Principal Member) |
| Shri Deepak Nimare (Alternate Member) |
| 5 | ERNET India, New Delhi | Shri A. Paventhan (Principal Member) |
| Shri Hari Krishna Atluri (Alternate Member) |
| 6 | Esri India Technologies Private Limited, Noida | Ms Seema Joshi (Alternate Member) |
| Shri Rupesh Kumar (Alternate Member) |
| Shri Vijay Kumar (Principal Member) |
| 7 | IEEE India, Bengaluru | Shri Munir Mohammed (Principal Member) |
| 8 | India Smart Grid Forum, New Delhi | Shri Reji Kumar Pillai (Principal Member) |
| 9 | Ministry of Housing and Urban Affairs, New Delhi | Shri Kunal Kumar (Principal Member) |
| Shri Padam Vijay (Alternate Member) |
| 10 | [Narnix Technolabs Private Limited, New Delhi](about:blank) | Shri Narang N Kishore (Principal Member) |
| 11 | National Smart Grid Mission, Ministry of Power, Gurugram | Shri Gyan Prakash (Alternate Member) |
| Smt Kumud Wadhwa (Alternate Member) |
| Shri Mr Arun Misra (Principal Member) |
| 12 | PHYTEC Embedded Private Limited, Bengaluru | Shri B. Vallab Rao (Vasu) (Principal Member) |
| 13 | Qualcomm India Private Limited, Bengaluru | Dr. Vinosh Babu James (Alternate Member) |
| Dr. Punit Rathod (Principal Member) |
| 14 | Renesas Electronics, Bengaluru | Shri Ravindra Chaturvedi (Principal Member) |
| Shri Saurabh Goswami (Alternate Member) |
| 15 | Seconded European Standardization Expert for India (SESEI), New Delhi | Shri Dinesh Chand Sharma (Principal Member) |
| 16 | Secure Meters Limited, Gurugram | Shri Madhur Kumar Srivastava (Principal Member) |
| Shri Puneet khurana (Alternate Member) |
| Shri Kaustubh Patil (Alternate Member) |
| Shri Uttam Kotdiya (Alternate Member) |
| Shri Anil Mehta (Alternate Member) |
| 17 | Senra Tech Private Limited, New Delhi | Shri Dhiraj Kumar (Principal Member) |
| Shri Ankush Kochhar (Alternate Member) |
| 18 | Sharma Technologies Private Limited | Shri Amarjeet Kumar (Principal Member) |
| 19 | Siemens Limited, Mumbai | Shri Manoj Belgaonkar (Alternate Member) |
| Shri Ravi Madipadga (Principal Member) |
| Shri Pradeep Kapoor (Alternate Member) |
| Shri Vikram Gandotra (Alternate Member) |
| 20 | Standardization Testing and Quality Certification (STQC) | Ms Lipika Kaushik (Principal Member) |
| 21 | Tata Consultancy Services Limited, Mumbai | Shri Ramesh Balaji (Principal Member) |
| Shri Debashis Mitra (Alternate Member) |
| 22 | Tata Consulting Engineers Limited, Navi Mumbai | Shri Jagdish Shivraj Shige (Principal Member) |
| Shri Manoj Kumar (Alternate Member) |
| 23 | Tejas Networks Limited, Bengaluru | Dr. Kanwar Jit Singh (Principal Member) |
| 24 | Telecommunication Engineering Center, New Delhi | Ms Ashima (Principal Member) |
| Shri Sushil Kumar (Alternate Member) |
| Shri Uttam Chand (Alternate Member) |
| 25 | Telecommunications Standards Development Society India, New Delhi | Ms. Bindoo Srivastava (Principal Member) |
| 26 | eGovernments Foundation, Bengaluru | Shri Krishnakumar Thiagarajan (Principal Member) |
| 27 | In Personal Capacity | Shri Vasanth Rajaraman (Principal Member) |

**LITD 28: PANEL 1 LAST MILE COMMUNICATION PROTOCOLS**

|  |  |  |
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| **S.No.** | **Organization** | **Member Name** |
|  | Sharma Technologies Private Limited | Shri Amarjeet Kumar |
|  | Sharma Technologies Private Limited | Shri P Vijay Kumar |
|  | ARM, Noida | Shri Jothikumar (Principal Member) |
|  | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Principal Member) |
|  | CyanConnode Private Limited, Bengaluru | Shri Matt Kern (Principal Member)  Shri Deepak Nimare (Alternate Member) |
|  | Genus Power Infrastructures Limited, Jaipur | Shri Kamal Lamba (Principal Member) |
|  | India Smart Grid Forum, New Delhi  Industry | Shri Ajoy Rajani (Principal Member) |
|  | Indian Institute of Science, Bengaluru | Shri Abhay S (Principal Member) |
|  | Intel India Technology Private Limited, Bengaluru | Shri C. Subramanian |
|  | Itron India Private Limited, Noida | Shri Kunal Shah (Principal Member)  Shri Matthew Gillmore (Alternate Member) |
|  | Kalki Communication Technologies Private Limited, Bengaluru | Shri Nirmal Thaliyil (Principal Member) |
|  | Narnix Technolabs Private Limited, New Delhi | Shri Narang N Kishore (Principal Member) |
|  | PHYTEC Embedded Private Limited | Shri B. Vallab Rao (Principal Member) |
|  | Secure Meters Limited, Gurugram | Shri Uttam Kotdiya (Principal Member) |
|  | System Level Solutions (India) Private Limited, Anand | Shri Foram Modi (Alternate Member) |
|  | Tata Communications Limited, Pune | Shri Rakesh Trivedi (Principal Member)  Shri Anand Nadar (Alternate Member) |
|  | Tejas Networks Limited, Bengaluru | Dr. Kanwar Jit Singh (Principal Member) |
|  | eGovernments Foundation, Bengaluru | Shri Krishnakumar Thiagarajan (Principal Member) |

**LITD 28: Panel 6 - Smart City ICT Reference Architecture**

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| **S.No.** | **Organization** | **Member Name** |
|  | Indian Institute of Science, Bengaluru | Shri Inder S Gopal (Convenor) |
|  | Shrama Technologies Private Limited | Shri Amarjeet Kumar |
|  | AECOM India Private Limited, Gurugram | Mr. P Vijay Kumar |
|  | Standardization Testing and Quality Certification (STQC) | Ms Lipika Kaushik |
|  | ARM, Noida | Shri Kumaar Guhan |
|  | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Principal Member) |
|  | Data Kaveri | Shri Suresh Kumar (Alternate Member) |
|  | Esri India Technologies Private Limited, Noida | Shri Vijay Kumar (Principal Member) |
|  | Hawlett Packard Enterprise | Mr. Devarajan R (Principal Member)  Manukumar Nair (Alternate Member) |
|  | India Smart Grid Forum, New Delhi  Industry | Ms. Parul Shribatham (Principal Member) |
|  | Indian Institute of Science, Bengaluru | Shri Abhay S (Principal Member)  Ms. Poorna Tejasvi (Alternate Member) |
|  | Intel India Technology Private Limited, Bengaluru | Shri C. Subramanian (Principal Member) |
|  | Larsen and Toubro Limited, Mumbai | Shri Omkar Nath (Principal Member) |
|  | SAP Labs India Private Limited, Bengaluru | Shri Sujit Patheja (Principal Member) |
|  | Secure Meters Limited, Gurugram | Shri Uttam Kotdiya (Principal Member)  Shri Sajit Panikkar (Alternate Member) |
|  | Tata Communications Limited, Pune | Shri Rakesh Trivedi (Principal Member)  Shri Anand Nadar (Alternate Member)  Shri Praveen Arora (Alternate Member) |
|  | eGovernments Foundation, Bengaluru | Shri Krishnakumar Thiagarajan (Principal Member)  Shri Gautham Ravichandar (Alternate Member) |

**LITD 28: Panel 7 Data Layer Reference Architecture**

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| **S.No.** | **Organization** | **Member Name** |
| 1 | Intel India Technology Private Limited, Bengaluru | Shri C. Subramanian (Convenor) |
| 2 | Esri India Technologies Private Limited, Noida | Ms. Ruma Chakrabarty (Principal Member) |
| 3 | Hawlett Packard Enterprise, | Mr. Devarajan R. (Principal Member) |
| 4 | Hexagon Geospatial | Shri Vinay Babu Adimulam (Principal Member) |
| 5 | Honeywell International India Private Limited, Gurugram | Shri Raja Pratap Kondamari (Principal Member) |
| 6 | Indian Institute of Science, Bengaluru | Shri Abhay Sharma (Principal Member) |
| 7 | SAP (Systems, Applications, and Products in Data Processing), New Delhi | Shri Sujit Patheja (Principal Member) |
| 8 | Siemens Limited, Mumbai | Shri Ravi Madipadga (Principal Member) |
| 9 | Siemens Limited, Mumbai | Shri Sabi Shaw (Alternate Member) |
| 10 | Standardization Testing and Quality Certification (STQC) | Ms Lipika Kaushik (Principal Member) |
| 11 | Tata Consultancy Services Limited, Mumbai | Shri Ramesh Balaji (Principal Member) |
| 12 | Tata Consultancy Services Limited, Mumbai | Shri Arun Vijayakumar (Alternate Member) |

**LITD 28: Panel 8 E-Governance Framework**

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| **S.No.** | **Organization** | **Member Name** |
| 1 | ARM, Noida | Shri Kumaar Guhan (Principal Member) |
| 2 | Esri India Technologies Private Limited, Noida | Shri Vijay Kumar (Principal Member) |
| 3 | Hexagon Geospatial | Shri VinayBabu Adimulam (Principal Member) |
| 4 | Landis+Gyr Limited, Noida | Shri Parag Gupta (Principal Member) |
| 5 | Landis+Gyr Limited, Noida | Mr. Deepanshu Kumar Agarwal (Principal Member) |
| 6 | Landis+Gyr Limited, Noida | Shri Puneet Verma (Alternate Member) |
| 7 | SAP (Systems, Applications, and Products in Data Processing), New Delhi | Shri Sujit Patheja (Principal Member) |
| 8 | ST Microelectronics Private Limited, Greater Noida | Dr. Manoj Kumar (Principal Member) |
| 9 | eGovernments Foundation, Bengaluru | Shri Krishnakumar Thiagarajan (Principal Member) |

**LITD 28: Panel 9 IoT System Reference Architecture**

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| **S.No.** | **Organization** | **Member Name** |
| 1 | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Convenor) |
| 2 | Bhubaneswar Smart City Limited, Bhubaneswar | Dr Manjunath D (Principal Member) |
| 3 | AECOM India Private Limited, Gurugram | Mr. P Vijay Kumar (Principal Member) |
| 4 | CyanConnode Private Limited, Bengaluru | Shri Deepak Nimare (Principal Member) |
| 5 | GE Healthcare Limited, New Delhi | Mr. Rahul K Gupta (Principal Member) |
| 6 | Gill Instruments Private Limited, Bengaluru | Gurjeet Singh (Principal Member) |
| 7 | Hewlett Packard India Sales Pvt. Ltd, New Delhi | Mr. Devarajan R. (Principal Member) |
| 8 | Honeywell International India Private Limited, Gurugram | Magesh Lingan (Alternate Member) |
| 9 | Honeywell International India Private Limited, Gurugram | Debasis Dash (Principal Member) |
| 10 | India Smart Grid Forum, New Delhi | Shri Ajoy Rajani (Principal Member) |
| 11 | India Smart Grid Forum, New Delhi | Shri Karnam Balasubramanyam (Alternate Member) |
| 12 | Innowear.hk | Shri Chandan (Principal Member) |
| 13 | Kalki Communication Technologies Private Limited, Bengaluru | Shri Nirmal Thaliyil (Principal Member) |
| 14 | Landis+Gyr Limited, Noida | Ms Pratima Soni (Principal Member) |
| 15 | Landis+Gyr Limited, Noida | Shri Amit Mittal (Principal Member) |
| 16 | Landis+Gyr Limited, Noida | Shri Anurag Srivastava (Principal Member) |
| 17 | Landis+Gyr Limited, Noida | Mr. Deepanshu Kumar Agarwal (Alternate Member) |
| 18 | Landis+Gyr Limited, Noida | Shri Puneet Verma (Principal Member) |
| 19 | Landis+Gyr Limited, Noida | Shri Tanmay Kathpalia (Alternate Member) |
| 20 | Landis+Gyr Limited, Noida | Ms. Sonali Srivastava (Alternate Member) |
| 21 | Narnix Technolabs Private Limited, New Delhi | Shri Narang N Kishore (Principal Member) |
| 22 | PHYTEC Embedded Private Limited, Bengaluru | B. Vallab Rao (Vasu) (Principal Member) |
| 23 | Qualcomm India Private Limited, Bengaluru | Dr. Vinosh Babu James (Principal Member) |
| 24 | Rosmerta Technologies Limited, Gurugram | Shri Kush Mehrotra (Alternate Member) |
| 25 | ST Microelectronics Private Limited, Greater Noida | Dr. Manoj Kumar (Principal Member) |
| 26 | ST Microelectronics Private Limited, Greater Noida | Shri Raunaque Mujeeb Quaiser (Alternate Member) |
| 27 | Seconded European Standardization Expert for India (SESEI), New Delhi | Nitin Sharma (Alternate Member) |
| 28 | Seconded European Standardization Expert for India (SESEI), New Delhi | Shri Dinesh Chand Sharma (Alternate Member) |
| 29 | Secure Meters Limited, Gurugram | Shri Uttam Kotdiya (Principal Member) |
| 30 | Senra Tech Private Limited, New Delhi | Mr. Ali Hosseini (Principal Member) |
| 31 | Senra Tech Private Limited, New Delhi | Mr. Kush Mishra (Alternate Member) |
| 32 | Sensorise Digital Services Private Limited, Noida | Mr. Sharad Arora (Principal Member) |
| 33 | Sharma Technologies Private Limited | Shri Amarjeet Kumar (Principal Member) |
| 34 | Siemens Limited, Mumbai | Shri Deepak Vaidya (Principal Member) |
| 35 | Standardization Testing and Quality Certification (STQC) | Ms Lipika Kaushik (Principal Member) |
| 36 | Tejas Networks Limited, Bengaluru | Dr. Kanwar Jit Singh (Principal Member) |
| 37 | Telecommunication Engineering Center, New Delhi | Shri Sushil Kumar (Principal Member) |
| 38 | Xylem Water Solutions India Private Limited, Vadodara | Shri Prateek Khattri (Alternate Member) |

**LITD 28: Panel 10 - GIS Framework**

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| **S.No.** | **Organization** | **Member Name** |
| 1 | Esri India Technologies Private Limited, Noida | Ms. Ruma Chakrabarty (Convenor) |
| 2 | AECOM India Private Limited, Gurugram | Mr. P Vijay Kumar (Principal Member) |
| 3 | Narnix Technolabs Private Limited, New Delhi | Shri Narang N Kishore (Principal Member) |
| 4 | National Spatial Data Infrastructures, New Delhi | Shri S. K. Bohra (Alternate Member) |
| 5 | National Spatial Data Infrastructures, New Delhi | Mr. R. N. Nanda (Principal Member) |
| 6 | PricewaterhouseCoopers Private Limited, Gurugram | Mr. Farhan Patel (Principal Member) |

**LITD 28: Panel 11 - Model RFP**

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| **S.No.** | **Organization** | **Member Name** |
| 1 | eGovernments Foundation, Bengaluru | Shri Abhishek Jain (Convenor) |
| 2 | Sharma Technologies Private Limited | Shri Amarjeet Kumar (Principal Member) |
| 3 | Bhubaneswar Smart City Limited, Bhubaneswar | Dr Manjunath (Principal Member) |
| 4 | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Principal Member) |
| 5 | Data Kaveri | Shri Suresh Kumar (Principal Member) |
| 6 | Esri India Technologies Private Limited, Noida | Ms. Ruma Chakrabarty (Principal Member) |
| 7 | Hawlett Packard Enterprise, | Mr. Devarajan R. (Principal Member) |
| 8 | Indian Institute of Science, Bengaluru | Prof Bharadwaj Amrutur (Alternate Member) |
| 9 | Indian Institute of Science, Bengaluru | Shri Arun Babu (Principal Member) |
| 10 | Intel India Technology Private Limited, Bengaluru | Shri C. Subramanian (Principal Member) |
| 11 | Ministry of Housing and Urban Affairs, New Delhi | Shri Padam Vijay (Alternate Member) |
| 12 | Ministry of Housing and Urban Affairs, New Delhi | Shri MS. Zia (Alternate Member) |
| 13 | Ministry of Housing and Urban Affairs, New Delhi | Ms. Srijita (Principal Member) |
| 14 | Ministry of Housing and Urban Affairs, New Delhi | Ms. Shilpa Shashidharan (Alternate Member) |
| 15 | Price Waterhouse Chartered Accountants LLP, New Delhi | Shri Abhishek Dubey (Principal Member) |
| 16 | SAP Labs India Private Limited, Bengaluru | Shri Sujit Patheja (Alternate Member) |
| 17 | Siemens Limited, Mumbai | Shri Ravi Madipadga (Principal Member) |

**LITD 28: Panel 12 - Data Exchange Architecture**

|  |  |  |
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| **S.No.** | **Organization** | **Member Name** |
| 1 | Indian Institute of Science, Bengaluru | Shri Abhay Sharma (Convenor) |
| 2 | Indian Institute of Science, Bengaluru | Shri Vasanth Rajaraman (Principal Member) |
| 3 | Indian Institute of Science, Bengaluru | Shri Rakshit Ramesh (Alternate Member) |
| 4 | Indian Institute of Science, Bengaluru | Shri Mahidhar Chellamani (Alternate Member) |
| 5 | International Institute of Information Technology, Bangalore | Dr. Srinath Srinivasa (Principal Member) |
| 6 | International Institute of Information Technology, Hyderabad | Shri Anuradha Vattem (Principal Member) |
| 7 | Microsoft India, Noida | Shri Rajesh Kumar (Principal Member) |
| 8 | NEC Technologies India Private Limited, New Delhi | Shri Anand Sahu (Principal Member) |
| 9 | Siemens Limited, Mumbai | Shri Sabi Shaw (Alternate Member) |
| 10 | Tata Consultancy Services Limited, Mumbai | Sandeep Saxena (Principal Member) |

**LITD 28: Panel 13 - Urban Domain Standards**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Organization** | **Member Name** |
| 1 | National Institute of Urban Affairs |  |

**LITD 28: Panel 14 - Data Models**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Organization** | **Member Name** |
| 1 | Sharma Technologies Private Limited | Shri Amarjeet Kumar (Convenor) |
| 2 | Centre for Development of Telematics, New Delhi | Shri Aurindam Bhattacharya (Principal Member) |
| 3 | Indian Institute of Science, Bengaluru | Shri Vasanth Rajaraman (Principal Member) |
| 4 | Narnix Technolabs Private Limited, New Delhi | Shri Narang N Kishore (Principal Member) |
| 5 | Secure Meters Limited, Gurugram | Shri Uttam Kotdiya (Principal Member) |

**ANNEXURE 2**

**PROGRAM OF WORK**

**LITD 28: SMART INFRASTRUCTURE**

|  |  |  |  |
| --- | --- | --- | --- |
| **SI. No.** | **IS No.** | **TITLE** | **Eqv.** |
| 1 | IS 18000 : 2020 | Unified Digital Infrastructure - ICT Reference Architecture ( UDI-ICTRA ) | Indigenous |
|
| 2 | IS 18002 (Part 1) : 2021 | Unified Digital Infrastructure - Data Layer Part 1 Reference Architecture | Indigenous |
| 3 | IS 18003 (Part 1) : 2020 | Unified Data Exchange Part 1 Architecture | Indigenous |
|
| 4 | IS 18003 (Part 2) : 2021 | Unified Data Exchange Part 2 API specifications | Indigenous |
| 5 | IS 18004 (Part 1) : 2021 | IoT System Part 1 Reference Architecture | Indigenous |
| 6 | IS 18006 (Part 1) : 2021 | Municipal Governance - Part 1 Reference Architecture | Indigenous |
| 7 | IS 18006 (Part 3/Sec 1) : 2021 | Municipal Governance - Part 3 Property Tax - Section 1 Taxonomy | Indigenous |
| 8 | IS 18008 (Part 1) : 2021 | Smart Cities- GIS Reference Architecture | Indigenous |
| 9 | IS 18010 (Part 1) : 2020 | Unified Digital Infrastructure - Unified Last Mile Communication Protocols Stack Part 1 Reference Architecture ( UDI - ULMCPS - RA ) | Indigenous |
|
| 10 | IS 18010 (Part 4/Sec 1) : 2022 | Wireless Smart Utility Network Field Area Network (FAN) (Unified Digital Infrastructure Unified Last Mile Communication Protocols Stack Part 4 Network Access Interface Layer Section 1 Specification) | Identical under dual numbering |
| 11 | IS 18010 (Part 5/Sec 1) : 2020 | Unified Digital Infrastructure Unified Last Mile Communication Protocols Stack Part 5 Network Access Layer ( IEEE 802.15.4 ) Section 1 Specification | Indigenous |
| 12 | IS 802.15.9 : 2021 | Recommended Practice for Transport of Key Management Protocol KMP Datagrams | Identical under dual numbering |
| 13 | IS 802.15.4 : 2021 | Low-Rate Wireless Networks | Identical under dual numbering |
| 14 | IS/ISO/IEC/IEEE 8802-1X : 2013 | Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks Part 1X: Port-based Network Access Control | Identical under single numbering |
| 15 | IS/ISO/IEC/IEEE 8802-11 : 2018 | Information Technology - Telecommunications and Information Exchange Between Systems - Local and Metropolitan Area Networks - Specific Requirements Part 11: Wireless Lan Medium Access Control ( MAC ) and Physical Layer ( PHY ) Specifications | Identical under single numbering |

**ANNEXURE 3**

**BALLOTS CURRENTLY ACTIVE FOR VOTE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.NO.** | **Doc Type** | **Ref/Doc No** | **Title** | **Due Date** | **Remarks** |
| 1. | CD | SyCSmartCities/343/CD IEC SRD 63347-1 ED1: | Smart city use case collection and analysis - Management of Public Health Emergencies in Smart Cities - Part 1: High Level Analysis | 2024-07-19 |  |
| 2. | CD | SyCSmartCities/337/CD IEC SRD 63326 ED1: | City Needs Analysis Framework | 2024-07-26 |  |
| 3. | CD | SyCSmartCities/338/CD IEC SRD 63301-2 ED1: | Smart city use case collection and analysis - Water systems in smart cities - Part 2 : Use case analysis | 2024-07-26 |  |
| 4. | CD | SyCSmartCities/339/CD IEC SRD 63302-2 ED1: | Smart city use case collection and analysis - Intelligent operations | 2024-07-26 |  |

**ANNEXURE 4**

**LIST OF PUBLISHED SRDs IN “IEC SyC Smart Cities”**

|  |  |  |
| --- | --- | --- |
| **SL.NO.** | **IEC STANDARD NO.** | **TITLE** |
| 1 | IEC 63152:2020 | Smart cities - City service continuity against disasters - The role of the electrical supply |
| 2 | IEC SRD 63152-2:2022 | Smart cities - City service continuity – Implementation guideline and city service cases |
| 3 | IEC SRD 63188:2022 | Smart Cities Reference Architecture Methodology |
| 4 | IEC SRD 63233-1:2022 | Smart city standards inventory and mapping - Part 1: Methodology |
| 5 | IEC SRD 63233-2:2023 | Smart city standards inventory and mapping - Part 2 : Standards inventory |
| 6 | IEC SRD 63233-4:2024 | Smart city standards inventory and mapping - Part 4: Guidance on standards for public health emergencies |
| 7 | IEC SRD 63235:2021 | Smart city system - Methodology for concepts building |
| 8 | IEC SRD 63273-1:2023 | Smart city use case collection and analysis - City information modelling - Part 1: High-level analysis |
| 9 | IEC SRD 63273-2:2024 | Smart city use case collection and analysis - City information modelling - Part 2: Use case analysis |
| 10 | IEC SRD 63320-1:2023 | Smart city use case collection and analysis - Smart urban planning for smart cities - Part 1: High-level analysis |
| 11 | IEC Technology Report City information modelling:2021 | City information modelling and urban digital twins |
| 12 | IEC Technology Report Ontology standards in smart cities:2023 | Ontology standards in smart cities |