



BUREAU OF INDIAN STANDARDS/भारतीय मानक ब्यूरो
Electronics and IT Department/इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी विभाग

16th meeting of Identification & Data capture techniques, Cards & Security Devices
Sectional committee, LITD 16 in Joint Session with its Sub-Committee and Panels

(Virtual Meeting, through Webex)

Date	30 August 2024
Time	2:30 PM –4:30 PM
Meeting link	Lal C Verma Hall, BIS HQ, New Delhi
Chairman:	Mr. Umesh Kumar Nandwani
Member Secretary:	Ms. Jyoti Kushwaha

Members Present: List of Participants is given at ANNEX-1

MINUTES

ITEM 0 WELCOME

- 0.1** The Member Secretary welcomed all the members to the Seventeenth meeting of LITD 16. After introduction of the members, the Member Secretary requested the Chairperson to kindly deliver his welcome address and initiate the proceedings.
- 0.2** Shri U K Nandwani extended warm welcome to all the members present and requested all the members for their effective and constructive contribution in standardization activities of the committee. He outlined the main points of discussion in the meeting's agenda and urged members to contribute meaningfully to the formulation of standards under this committee.
- 0.3** He then requested member secretary to carry on with the further agenda items.

ITEM 1 FORMAL CONFIRMATION OF THE MINUTES OF THE LAST MEETING

- 1.1** Member Secretary informed that the minutes of the sixteenth meeting of LITD 16 were circulated to the members of the committee on 04 June 2024 through BIS portal. No comments were received on the minutes. The committee formally confirmed the minutes.

ITEM 2 SCOPE OF SECTIONAL COMMITTEE

2.1 The committee noted the scope of the committee as standardization in the area of:

- a) Smart Cards, Identification cards, security devices and interface associated with their use in inter-industry applications and international interchange.
- b) Data formats, data syntax, data structures, data encoding, and technologies for the process of automatic identification and data capture and of associated devices utilized in inter-industry applications and international business interchanges and for mobile applications.

2.2 The committee deliberated over the scope of the committee and it was observed that the above-mentioned scope encompasses two domains which are loosely coupled. Members also felt that a detailed analysis of the scope is needed. Some members also suggested that if required, the task of standardization in the area of ‘data formats, data syntax, data structures, data encoding, and technologies for the process of automatic identification and data capture and of associated devices utilized in inter-industry applications and international business interchanges and for mobile applications’ can be assigned to a dedicated sectional committee. It was decided to seek opinions of all the committee members over email on this matter. The final recommendation in this regard may be taken in the subsequent meeting of LITD 16.

2.3 Further the committee composition needs strengthening with respect to “Automatic identification and data capture techniques, Application of biometrics to cards and personal identification, UAS License and Drone/UAS Security Module, Digital wallets”. It was decided reach out to relevant organizations such as MEA, Paytm, NPCI, PoS device manufacturers and similar organizations.

2.4 The committee noted the Liaison information as given at Item 2.2 of the agenda

ITEM 3 PROGRAM OF WORK OF LITD 16

3.1. The committee noted the information as given at Item 3.1 of the Agenda.

ITEM 4 DRAFT INDIAN STANDARDS UNDER DEVELOPMENT

4.1. The following standards are under development:

S. No	Document Number	Title	Stage	Decision
1.	LITD/16/26371 IS 16695: Part 2: 2022	SCOSTA: Smart Card Operating System Template Architecture Part 2 Public Key Infrastructure Amendment - 1	P-Draft	The committee decided to drop the document number LITD/16/26371 issued as draft amendment to IS 16695 Part 2 and decided to take up revision of the standard. The committee requested the Member Secretary to draft the initial p-draft of revision in consultation with

				CDAC.
2.	LITD/16/26374	SCOSTA: Smart Card Operating System Part 3: Test Methodology	P-Draft	The committee decided to issue the document in wide circulation for two months if no comments are received on the p-drafts circulated
3.	LITD/16/26375	SCOSTA: Smart Card Operating System Part 4: Testing Methodology Public Key Infrastructure	P-Draft	The committee decided to issue the document in wide circulation for two months if no comments are received on the p-drafts circulated

4.2. The committee further decided to discuss and finalise the comments, if any received, in the sub-committee LITD 16:1.

ITEM 5 DRAFT STANDARDS UNDER PRINTING

5.1. The committee noted the list of standards under printing as given at Item 5.1 of the agenda

ITEM 6 REVIEW OF PUBLISHED INDIAN STANDARDS

6.1. The committee reviewed the status of the Published Indian Standards due for review and following decisions were taken:

S. No	IS No. & Title	Corresponding International Standard	Degree of Equivalence	Present status of International Standards	Reaffirmation due date	Recommendation
1	IS 12755 (Part 1): 1989 Alphanumeric character sets for optical recognition: Part 1 character set OCR - A - Shapes and dimensions of the printed image	ISO 1073-1: 1976	Identical	ISO 1073-1:1976	Feb-24	As there is no change in corresponding ISO standard, the committee decided to reaffirm the standard.
2	IS 12755 (Part 2): 1989 Alphanumeric character sets for optical - Recognition: Part 2 character set OCR - B - Shapes and dimensions of the printed image	ISO 1073 - 2: 1976	Identical	ISO 1073-2:1976	Aug-24	As there is no change in corresponding ISO standard, the committee decided to reaffirm the standard.

3	IS/ISO/IEC 10373-1: 2020 Cards and security devices for personal identification Test methods Part 1: General characteristics	ISO/IEC 10373- 1:2020	Identical under single numberin g	ISO/IEC 10373- 1:2020/A md 1:2023	Jan-25	The committee decided to take up the latest amendment and to issue ISO/IEC 10373-1:2020/Amd 1:2023 directly in Wide Circulation for the period of two months as amendments to IS/ISO/IEC 10373-1: 2020.
4	IS/ISO/IEC 10373-2: 2015 Identification cards - Test methods - Part 2: Cards with Magnetic Stripes	ISO/IEC 10373- 2:2015	Identical under single numberin g	ISO/IEC 10373-2: 2015	Feb-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
5	IS/ISO/IEC 10373-3: 2018 Cards and Security Devices for Personal Identification — Test Methods Part 3 Integrated Circuit Cards with Contacts and Related Interface Devices	ISO/IEC 10373-3: 2018	Identical under single numberin g	ISO/IEC 10373-3: 2018	Jan-25	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
6	IS/ISO/IEC 10373-7: 2019 Cards and security devices for personal identification Test methods Part 7: Contactless vicinity objects First Revision (First Revision)	ISO/IEC 10373- 7:2019	Identical under dual numberin g	ISO/IEC 10373-7: 2019	Aug-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
7	IS/ISO/IEC 10373-8: 2011 Identification cards Test methods Part 8: USB-ICC	ISO/IEC 10373- 8:2011	Identical under single numberin g	ISO/IEC 10373-8: 2011	Feb-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
8	IS/ISO/IEC 10373-9: 2011 Identification Cards — Test Methods Part 9 Optical Memory Cards — Holographic Recording Method	ISO/IEC 10373- 9:2011	Identical under single numberin g	ISO/IEC 10373-9: 2011	Feb-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
9	IS/ISO/IEC 18004: 2015 Information technology Automatic identification and data capture techniques QR Code bar code symbology specification	ISO/ IEC 18004:20 15	Identical under single numberin g	Revised by ISO/IEC 18004:202 4	Feb-24	The committee decided to align the Indian standard with the ISO/IEC 18004:2024 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.

10	IS 14202 (Part 4): 2021 Identification cards Integrated circuit cards Part 4: Organization security and commands for interchange First Revision	ISO/IEC 7816-4: 2020	Identical under dual numbering	ISO/IEC 7816-4:2020/Amd 1:2023	Aug-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
11	IS 14202 (Part 8): 2021 Identification cards Integrated circuit cards Part 8: Commands and mechanisms for security operations First Revision	ISO/IEC 7816-8: 2019	Identical under dual numbering	Revised by ISO/IEC 7816-8:2021	Nov-24	The committee decided to align the Indian standard with the ISO/IEC 7816-8: and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.
12	IS 14202 (Part 9): 2021 Identification cards Integrated circuit cards Part 9: Commands for card management First Revision	ISO/IEC 7816-9:2017	Identical under dual numbering	ISO/IEC 7816-9:2017	Nov-24	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.
13	IS 14202 (Part 11): 2021 Identification cards Integrated circuit cards Part 11: Personal verification through biometric methods First Revision	ISO/IEC 7816-11:2017	Identical under dual numbering	Revised by ISO/IEC 7816-11:2022	Aug-24	The committee decided to align the Indian standard with the ISO/IEC 7816-11:2022 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.
14	IS 14202 (Part 15): 2022 Identification cards Integrated circuit cards Part 15: Cryptographic information application	ISO/IEC 7816-15:2016	Identical under dual numbering	ISO/IEC 7816-15:2016/Amd 1:2018	Jan-25	The committee decided to take up the latest amendment and to issue ISO/IEC 7816-15:2016/Amd 1:2018 directly in Wide Circulation for the period of two months as amendments to IS 14202 (Part 15): 2014
15	IS 14147 (Part 1): 2021 Identification Cards Recording Technique Part 1 Embossing	ISO/IEC 7811-1:2014	Identical under dual numbering	Revised by ISO/IEC 7811-1:2018	Aug-24	The committee decided to align the Indian standard with the ISO/IEC 7811-1:2018 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard.

						The committee also decided reaffirm the Indian Standard till the publication of revised standard.
16	IS 14147 (Part 2): 2021 Identification cards Recording technique part 2 Magnetic stripe Low coercivity	ISO 7811- 2:2014	Identical under dual numberin g	Revised by ISO/IEC 7811- 2:2018	Aug-24	The committee decided to align the Indian standard with the ISO/IEC 7811-2:2018 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.
17	IS 14147 (Part 7): 2021 Identification Cards Recording Technique Part 7 Magnetic Stripe High Coercivity High Density	ISO/IEC 7811- 7:2014	Identical under dual numberin g	Revised by ISO/IEC 7811- 7:2018	Aug-24	The committee decided to align the Indian standard with the ISO/IEC 7811-7:2018 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.
18	IS 14172: 2021 Identification Cards Physical Characteristics	ISO/IEC 7810:200 3	Identical under dual numberin g	Revised by ISO/IEC 7810:2019	Sep-24	The committee decided to align the Indian standard with the ISO/IEC 7810:2019 and to issue the document directly in Wide Circulation for the period of two months as revision to corresponding Indian Standard. The committee also decided reaffirm the Indian Standard till the publication of revised standard.
19	IS/ISO/IEC 18745-1: 2018 Test methods for machine readable travel documents MRTD and associated devices Part 1: Physical test methods for passport books durability	ISO/IEC 18745- 1:2018	Identical under single numberin g	ISO/IEC 18745-1: 2018	Jan-25	As there is no change in corresponding ISO/IEC standard, the committee decided to reaffirm the standard.

20	IS/ISO/IEC 14443-2: 2020 Cards and security devices for personal identification Contactless proximity objects Part 2: Radio frequency power and signal interface	ISO/IEC 14443- 2:2020	Identical under single numberin g	ISO/IEC 14443- 2:2020/Co r 2:2023	Nov-25	The committee decided to take up the latest corrigendum and to issue ISO/IEC 14443-2:2020/Cor 2:2023 directly in Wide Circulation for the period of two months as amendments to IS/ISO/IEC 14443-2: 2020.
21	IS/ISO/IEC 14443-3: 2018 Cards and security devices for personal identification Contactless proximity objects Part 3: Initialization and anticollision	ISO/IEC 14443- 3:2018	Identical under single numberin g	ISO/IEC 14443- 3:2018/A md 2:2020	Dec-25	The committee decided to take up the latest amendment and to issue ISO/IEC 14443-3:2018/Amd 2:2020 directly in Wide Circulation for the period of two months as amendments to IS/ISO/IEC 14443-3 : 2018
22	IS/ISO/IEC 14443-4: 2018 Cards and security devices for personal identification Contactless proximity objects Part 4: Transmission protocol	ISO/IEC 14443- 4:2018	Identical under single numberin g	ISO/IEC 14443- 4:2018/A md 2:2020	Dec-25	The committee decided to take up the latest amendment and to issue ISO/IEC 14443-4:2018/Amd 2:2020 directly in Wide Circulation for the period of two months as amendments to IS/ISO/IEC 14443-4 : 2018

ITEM 7 NATIONAL & INTERNATIONAL STANDARDIZATION ACTIVITIES

- 7.1.** The committee noted the list of liaison committees at ISO/IEC level as given at item 6.1 of the agenda.
- 7.2.** The committee noted the details of working groups under the above committees as given at item 6.2 of the agenda.
- 7.2.1.** The committee decided to formulate the following Panels corresponding to Working Groups (WGs) of SC 17 with existing nominated experts in the corresponding WGs:
- i. WG 1 Physical characteristics and test methods for IDcards
 - ii. WG 3 Traveller identification (Identification cards -Machine readable travel documents
 - iii. WG 4 Generic interfaces and protocols for security devices
 - iv. WG 8 Integrated circuit cards without contacts
 - v. WG 10 Motor vehicle driver licence and related documents
 - vi. WG 11 Application of biometrics to cards and personal identification
- 7.2.2.** It was further decided that in the future meetings these Working Group experts will be briefing regarding the work going on in the corresponding WGs of SC 17.
- 7.3.** The committee noted the list of published standards by ISO/IEC/JTC 1 SC 17 and ISO/IEC/JTC 1 SC 31 as given at item 6.3 of the agenda.
- 7.4.** The committee noted the list of standards under development in ISO/IEC/JTC 1 SC 17 and ISO/IEC/JTC 1 SC 31 as given at item 6.4 of the agenda.

7.5. The committee discussed the active ballots and decided the following:

S.No	Committee	Reference	Title	Recommendation
1	SC 17	ISO/IEC 15693-2:2019 (Ed 3)	Cards and security devices for personal identification — Contactless vicinity objects — Part 2: Air interface and initialization	To confirm the standard. And to nominate Mr. Nitin Agrawal as an expert
2	SC 17	ISO/IEC 15693-3:2019 (Ed 3)	Cards and security devices for personal identification — Contactless vicinity objects — Part 3: Anticollision and transmission protocol	To confirm the standard. And to nominate Mr. Nitin Agrawal as an expert
3	SC 17	ISO/IEC TS 22924:2021	Identification cards — Transport layer topologies — Configuration for HCI/HCP interchange	To confirm the standard.
4	SC 17	ISO/IEC TS 24192-1:2021	Cards and security devices for personal identification — Communication between contactless readers and fare media used in public transport — Part 1: Implementation requirements for ISO/IEC 14443 (all parts)	To confirm the standard. And to nominate Ms. Savita Kashyap as an expert
5	SC 17	ISO/IEC TS 24192-2:2021	Cards and security devices for personal identification — Communication between contactless readers and fare media used in public transport — Part 2: Test plan for ISO/IEC 14443 (all parts)	To confirm the standard. And to nominate Ms. Savita Kashyap as an expert
6	SC 17	ISO/IEC DTR 25219	Personal identification — ISO-compliant driving licence — Considerations for early adopters of ISO/IEC 18013-7	To vote abstain as India has its own standards on driving license.
7	SC 17	ISO/IEC CD 17839-1	Information technology — Biometric System-on-Card — Part 1: Core requirements	Mr. Madhusudhanan Sampath and Mr. Nakul Patel were requested to provide timely inputs after review of the document.
8	SC 17	ISO/IEC CD 17839-3	Information technology — Biometric System-on-Card — Part 3: Logical information interchange mechanism	Mr. Nakul Patel was requested to provide timely inputs after review of the document
9	SC 17	ISO/IEC DTS 18013-6	Personal identification — ISO-compliant driving licence — Part 6: mDL test methods	To vote abstain as India has its own standards on driving license.

10	SC 17	ISO/IEC NP 23220-7	Cards and security devices for personal identification — Building blocks for identity management via mobile devices — Part 7: Registration Authority Procedures for Mobile Document	To vote abstain as India has its own standards in this domain
11	SC 17	ISO/IEC DIS 18584-1	Information technology – Test methods for on-card biometric comparison applications — Part 1: General principles and specifications	Mr. Nakul Patel was requested to provide timely inputs after review of the document.
12	SC 17	ISO/IEC DIS 18584-2	Information Technology – Test methods for on-card biometric comparison applications — Part 2: Work-sharing mechanism	Mr. Nakul Patel was requested to provide timely inputs after review of the document.
13	SC 31	SC 31 Consumer Representation Survey		Information to be provided as per fact
14	SC 31	ISO/IEC 29167-19:2019 (Ed 2)	Information technology — Automatic identification and data capture techniques — Part 19: Crypto suite RAMON security services for air interface communications	To vote abstain
15	SC 31	CIB – ISO/IEC JTC 1/SC 31 Horizontal Standards list		To approve
16	SC 31	ISO/IEC 20248:2022/FDAmD 1 (Ed 2)	Information technology — Automatic identification and data capture techniques — Digital signature data structure schema — Amendment 1: Domain authority identifier (DAID) specification for the GS1 legal entity identifier and encoding clarifications	To vote abstain
17	SC 31	ISO/IEC FDIS 18975	Information technology — Automatic identification and data capture techniques — Encoding and resolving identifiers over HTTP	To vote abstain
18	SC 31	ISO/IEC 15961-2:2019	Information technology — Data protocol for radio frequency identification (RFID) for item management — Part 2: Registration of RFID data constructs	To vote abstain
19	SC 31	ISO/IEC 22243:2019	Information technology — Radio frequency identification for item	To vote abstain

			management — Methods for localization of RFID tags	
20	SC 31	ISO/IEC 24770-5:2019	Information technology — Real-time locating system (RTLS) device performance test methods — Part 5: Test methods for chirp spread spectrum (CSS) air interface	To vote abstain

7.5.1. The committee decided to abstain the SC 31 documents due to lack of experts in the related area. It was suggested to explore strengthening the committee composition with experts from these areas.

7.6. The committee noted the forthcoming meetings of ISO/IEC/JTC 1 SC 17. It was decided to circulate the information and agenda of the upcoming plenary meeting of ISO/IEC JTC 1/SC 17 (39th meeting of Cards and security devices for personal identification along with its working groups) scheduled from 17 Oct 2024 to 18 Oct 2024 (Sydney) Australia in Hybrid mode to identify the Indian delegation for participation.

ITEM 8 R&D PROPOSAL

8.1 The committee noted the information as given at item no 8.1 of the agenda

8.2 Members were requested to identify similar proposals for R&D Projects for Formulation and Review of Standards.

ITEM 9 COMPOSITION OF SECTIONAL COMMITTEE

9.1 The committee welcomed Ms Rakhi Nangia from IESA as the new addition to the committee's composition.

9.2 It was decided to withdraw the following organisations for their lack of participation from the committee composition:

- Fime India
- CCA
- DMRC

9.3 It was further decided to approach the following organisations with our committee members for revised nominations and active participation:

- CSI
- ST Microelectronics – Mr. Kishore Narang to assist
- Samsung India Electronics – Ms Savita Kashyap to assist

9.4 The committee formulated a new Panel LITD 16: P05 for standardisation on the subject of 'software specifications for e-passports' The following members are proposed for the said panel:

- Prof Rajat Moona, IIT Gandhinagar
- Mr. Nakul Patel, Shreenath Smart Technologies Pvt Ltd
- Mr. Nitin Agrawal. E-Smart Systems Ltd
- Ms. Savita Kashyap, CDAC
- Mr. Adarsh Pillai, CDAC
- Mr. Manish Verma, CDAC

ITEM 10 INFORMATION ON E-SALE OF STANDARDS BY BIS

10.1. The committee noted the information as given at item 9.1 of the agenda.

ITEM 11 NATIONAL INSTITUTE FOR TRAINING IN STANDARDISATION (NITS)

11.1. The committee noted the information as given at item 11.1 of the agenda.

ITEM 12 eBIS Portal(www.manakonline.in)

12.1. The committee noted the information as given at item 12.1 of the agenda.

ITEM 13 DATE AND PLACE FOR THE NEXT MEETING

13.1. The next meeting of LITD 16 is tentatively scheduled in December 2024. The exact date and place for the next meeting will be decided in consultation with the Chairman.

ITEM 14 ANY OTHER BUSINESS

14.1. The committee also deliberated on retaining the ISO/IEC number series for important standards such as IS 14202 series which is based on ISO/IEC 7816 series, IS 14172 series which is based on ISO 7810 series. Both of these series of standards are adopted as 'Identical under dual numbering', i.e., they are based on the ISO/IEC standards but are published with a different number as Indian Standard. Since the ISO/IEC 7816 and ISO/IEC 7810 numbers are more popular across stakeholders, the committee members suggested exploring the possibility of converting these Indian standards as 'Identical under single numbering', i.e., publishing it as IS/ISO/IEC 7816 series. Member secretary informed that since these are already published as Indian standards and are notified through gazette, the conversion might not be feasible immediately. The committee requested the Member Secretary to explore the possibility of doing the same.

14.2. The matter of work in LITD 16: P3 National Common mobility card Ecosystem Panel was also discussed briefly during the meeting. It was observed that this panel had been formulated at the request of MoHUA for working on the standards in NCMC ecosystem. However, the Panel is currently not active due to lack of response at their end despite several attempts. Since in principle the conceptual relevance still exists for such standards, the committee decided to approach MoHUA again regarding the need of the standardization regarding the relevance of need at National Common Mobility Card Ecosystem.

14.3. Shri Narang Kishore volunteered to reach out to MoHUA regarding the NCMC panel work.

14.4. With concluding remarks by the chair, the meeting ended with a hearty vote of thanks to the Chairperson and members.

ANNEX-1

S. No	Name	Organization	Email
1.	Sanjay Kumar Srivastava	All India radio	sksrivastava@prasarbharati.gov.in
2.	Savita Kashyap	Centre for Development of Advanced Computing	savitakashyap@cdac.in
3.	Adarsh Pillai	Centre for Development of Advanced Computing	adarshpillai@cdac.in
4.	Manish Verma	Centre for Development of Advanced Computing	manishverma@cdac.in
5.	Suresh Sawhney	Dolphin RFID Pvt. Ltd	suresh@dolphinrfid.in
6.	Prof Rajat Moona	Indian Institute of Technology Gandhinagar	moona@iitgn.ac.in
7.	Madhusudhanan Sampath	Infineon Technologies India Private Limited	madhusudhanan.sampath@infineon.com
8.	Saurabh Ranjan	Ministry of Electronics and Information Technology	saurabh.ranjan@meity.gov.in
9.	Narang N Kishore	Narnix Technolabs Private Limited	kishor@narnix.com
10.	Kashyap Makwana	Shreenath Smart Technologies Private Limited	kashyap@sstpl.co
11.	Nakul Patel	Shreenath Smart Technologies Private Limited	nakul@sstpl.co
12.	A. Datta	Standardization Testing And Quality Certification (STQC)	arpitad@stqc.gov.in
13.	Amul Madan	The Institution of Electronics and Telecommunication Engineers	amul@broadbandindiaforum.in
14.	Anurag Ashok	e-Smart Systems Limited	anurag.ashok@e-smartsystems.com
15.	Rishabh Agarwal	e-Smart Systems Limited	r.agarwal@e-smartsystems.com
16.	Nitin Kumar Agrawal	e-Smart Systems Limited	n.agrawal@e-smartsystems.com
17.	Vinay Bhushan Taneja	IN PERSONAL CAPACITY	vtaneja@meity.gov.in
18.	Rakhi Nangia	IESA	rakhi.nangia@iesaonline.org