BUREAU OF INDIAN STANDARDS

MINUTES

11th MEETING OF 'CODING AND PROCESSING OF AUDIO, PICTURE, MULTIMEDIA AND HYPERMEDIA INFORMATION SECTIONAL COMMITTEE, LITD 23
(Virtual Meeting)

Date & Time	13 November 2023 (Monday); Time: 1100-1300h
Meeting link	https://bismanak.webex.com/bismanak/j.php?MTID=m3e03a914beda8c6cccb1874fb4b2ff38
Meeting ID	2514 694 4583
Password	LITD23@11

Chairperson: Shri Mahesh D Kulkarni, Ex Senior Director, CDAC

Member Secretary: Shri Priyanshu Sharma, Scientist-B & Assistant Director, BIS

List of participants

Sl.No.	Organization	Member Name
3.	Amazon India, Bengaluru	Dr. Malateshgouda Karegoudar
4.	AMD India Private Limited	Shri Mahesh Narain Shukla
5.	Centre for Development of Advanced Computing, Pune	Shri Vivek Khaneja
6.	Consumer Electronics and Appliances Manufacturers Association	Shri Saurabh Singh
7.	Directorate General Doordarshan, Prasar Bharti	Shri D.Godwin Gananaraj
8.	Dolby Technology India Pvt Ltd	Shri Ashok Kumar Bhatnagar
9.	Fraunhofer Office India	Shri Sharadindoo Sadhu

10.	Dhirubhai Ambani Institute of Information and Communication Technology,	Prof. Manish K Gupta
11.	Indian Institute of Information Technology, Allahabad	Shri Mohammed Javed
12.	Indian Institute of Technology Gandhinagar	Dr. Shanmuganathan Raman
13.	Indian Institute of Technology Kanpur	Prof Vipul Arora
14.	Instrive Softlabs Private limited, Chennai	Shri Ashok
15.	Ittiam Systems Private Limited	Shri Murali Babu Muthukrishnan
16.	Ittiam Systems Private Limited	Shri Shailesh Ramamurthy
17.	PeopleLink Unified Comm. Private Limited	Shri Abhishek Pratap Singh
18.	Samsung Research and Development Institute India,	Shri Anubhav Singh

ITEM 0   WELCOME

0.1   Member Secretary, Shri Priyanshu Sharma welcomed the participants to the meeting.

0.2   Shri Mahesh D Kulkarni, Chairperson, formally welcomed the participants to the meeting for deep diving into the picture, audio, video standards which are very important. He emphasized on the role of AI in all standards especially audio & video and its role in enhancing coding, interactive audio & videos which are upcoming today's requirement.

He also apprised the members of the need of protections of audio video from deep fake creations which makes the role of this committee even more crucial. He further requested the members to provide their valuable inputs and support in this committee's initiatives and requested the Member Secretary to take up the formal agenda items.

After a brief introduction of the members present, the Member Secretary took upon the formal agenda items.

ITEM 1 FORMAL CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 The committee formally **confirmed** the minutes of the last (10th) meeting of Coding & Processing of Audio, Picture, Multimedia & Hypermedia Information Sectional Committee, LITD 23, held on 09 June 2023, which were circulated vide email dated 03 July 2023, since no comments were received.

ITEM 2 ISSUES ARISING OUT OF THE PREVIOUS MEETINGS

2.1 The committee noted the progress of action items arising out of the previous meeting. Member Secretary informed the committee of the awaited submission from Shri Madhuvarshitt on *white paper on various aspects and subdomain related to Audio, Picture and Video* which has been pending since the past few meetings.

Considering the importance of the subject, the committee **decided** to formulate an adhoc panel (expert group) under LITD-23 for *drafting and submission of white paper on various aspects and subdomains related to audio, picture and video*. The initial composition will comprise of the following members, as decided during the meeting:

SI. No.	Organization	Expert	Domain	Role of Expert
1.	AMD India Private Limited - Gurgaon	Mr. Mahesh Narain Shukla	Video	Convenor
2.	Indian Institute of Technology Kanpur, Kanpur	Dr. Vipul Arora	Audio	Member
3.	Ittiam Systems Private Limited, Bengaluru	Mr. Murali Babu Muthukrishnan/Mr. Shailesh Ramamurthy	Video , Audio	Member
4.	Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar	Dr. Manish K Gupta	Picture	Co-Convenor
5.	Indian Institute of Technology Gandhinagar, Gandhinagar	Dr. Shanmuganathan Raman	Picture	Member
6.	Fraunhofer Office India, Bengaluru	Mr. Sharadindoo Sandhu	Audio	Member
7.	Dolby	Name of expert is awaited	Audio	Member

The committee **decided** that more experts may be added to the panel composition with the approval of the LITD 23 Chairperson.

ITEM 3 SCOPE & COMPOSITION OF SECTIONAL COMMITTEE

3.1 The committee reviewed the scope and composition of LITD 23 given in Annex-1 of the agenda.

3.2 The committee noted the nomination given in agenda item 3.2 and formally welcomed the member from IIT Gandhinagar to the Committee.

3.3 The committee noted the information given in Agenda item 3.3 and **decided** to approach the following organizations one last time and write them letters for reviewing their nominations.

➢ CEAMA
➢ NXP
➢ Texas Instruments

Moreover, it was **decided** that in case no response received by these organizations by 2nd week of Jan 2024, it will be presumed that these organizations do not intend to continue as members of the committee and accordingly their membership shall be reviewed for withdrawal by the committee in the next meeting.

3.4 The committee **co-opted** the organizations listed in item 3.4 of the agenda and formally welcomed them to the committee:

> ➢ IIIT Allahabad - Mr. Mohammed Javed (Principal Member)
> ➢ Amazon India - Dr. Malateshgouda Karegoudar (Principal Member)

3.5 The committee **decided** to write to the following institutes/organizations as decided in the last meeting, given the importance & their relevance to the scope of the committee:

a) IIT Jodhpur – Fraunhofer to provide contact details for domain expert & Member Secretary to write co-option letter. In case no details received, letter to be written to the Director
b) IIT Delhi – To write another letter to the Director
c) Reliance Jio – Member Secretary to write co-option letter to Reliance Jio (Contact details to be shared by LITD 23 Chair since Mr Zia Saquib has parted ways with Reliance Jio)
d) IIT Bhilai – To write another letter to the Director

3.6 The committee felt the participation of MeitY (Ministry of Electronics & Information Technology) is very important to the committee and **decided** to approach MeitY once again for reviewing their nominations & active participation to the committee.

ITEM 4 REVIEW OF PUBLISHED INDIAN STANDARDS

4.1 Draft Indian Standards under Development

The committee noted the information provided in 5.1 of the agenda and **decided** to deliberate on the under development standards in the next meeting.

Sl.No.	Doc.No.	Title	Secretariat Remarks	Changes from the Previous Version, If Applicable
1.	LITD/23/23683	ISO/IEC 7942-3 Information technology - Computer graphics and image processing Graphical Kernel System GKS Part 3: Audit trail	New standard taken up based on the committee decision (Dual Numbering)	In case no comments received by the last date of wide circulation, the committee finalized the document and **requested** the Member Secretary to send it for publication as an Indian standard.
2.	LITD/23/23681	ISO/IEC 7942-1 Information technology - Computer graphics and image processing - Graphical Kernel System GKS Part 1: Functional description (First Revision)	The base standard as identical to ISO 7942:1985. The revision in line with ISO/IEC 7942-1:1994 has been taken up based on the submitted ARP & the committee's decision (Dual	In case no comments received by the last date of wide circulation, the committee finalized the document and **requested** the Member Secretary to send it for publication as an Indian standard.

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			Numbering)	
3.	LITD/23/21432	Information Technology - Coding of Audio-Visual Objects Part 10 Advanced Video Coding	The base standard of this Indian standard has been revised by ISO/IEC 14496-10:2022	The committee **decided** to issue the draft document identical to ISO/IEC 14496-10:2022 under Wide Circulation.
4.	LITD/23/23682	ISO/IEC 7942-2 Information technology - Computer graphics and image processing - Graphical Kernel System GKS Part 2: NDC metafile	New standard taken up based on the committee decision (Dual Numbering)	In case no comments received by the last date of wide circulation, the committee finalized the document and **requested** the Member Secretary to send it for publication as an Indian standard.
5.	LITD/23/21435	Information Technology - Coding of Audio-Visual Objects Part 12 ISO Base Media File Format	The base standard of this Indian standard has been revised by ISO/IEC 14496-12:2022	The committee **decided** to issue the draft document identical to ISO/IEC 14496-12:2022 under Wide Circulation.
6.	LITD/23/23684	Information technology - Computer graphics and image processing - Graphical Kernel System GKS Part 4: Picture part archive	New standard taken up based on the committee decision (Dual Numbering)	In case no comments received by the last date of wide circulation, the committee finalized the document and **requested** the Member Secretary to send it for publication as an Indian standard.

ITEM 5 GUIDELINES FOR RESEARCH & DEVELOPMENT (R&D) PROJECTS FOR THE FORMULATION AND REVIEW OF STANDARDS INVITING POTENTIAL R&D PROJECTS FROM THE COMMITTEE MEMBERS

Member secretary apprised the members of the recent BIS initiative to support research supporting standards wherein guidelines were issued for research & development (R&D) projects for the formulation and review of standards inviting potential (R&D) projects from the committee members along with the ToR template and the action required from the committee members. He further explained the guidelines to the committee.

Member Secretary encouraged the committee members to share proposals on potential R&D projects with the BIS Secretariat for the committee's consideration since this is an ongoing continuous exercise.

Member Secretary informed the committee that based on the projects by the screening committee, BIS will subsequently publish a list of R&D projects, along with the associated Terms of Reference (ToR) on Standardization portal or any other suitable digital platform.

Dr. Manish Gupta, DA-IICT Gandhinagar gave a detailed presentation on the potential R&D project on "JPEG DNA Exploration". The committee highly appreciated the idea behind the proposal, provided minor editorial suggestions regarding the scope and **approved** the modified ToR of the R&D project, subject to the condition no other comments are received by the BIS secretariat by 22 November 2023.

After the presentation, representative of CDAC informed the committee of CDAC also working in this area and they may like to contribute to the project in the future.

ITEM 6 PROGRAM OF WORK

6.1 The committee noted the information given in 6.1 of the agenda.

ITEM 7 INTERNATIONAL ACTIVITES

7.1 The committee noted the information given in 7.1 of the agenda.

7.2 The committee noted the information given in 7.2 of the agenda.

7.3 Experts registered in working groups of JTC1/SC 24 & JTC 1/SC 29 are mentioned in Annex 6 of the agenda. Each Expert is requested to provide update (Major standards of WG, standards in which expert is contributing and brief of standard and their contribution in the standard) w.r.t their working group.

7.4 ISO/IEC JTC 1 SC 24 & SC 29 MEETINGS

7.4.1 Upcoming Plenary Meetings of ISO/IEC JTC 1/SC 29 44th plenary meeting of JTC 1/SC 29 is scheduled to be held during 06-08 February 2024. It is planned to be held (Virtual). Agenda for the meetings is yet to be published. Members are requested to consider participation in the meeting.

7.4.2 Debriefing from the last Plenary Meetings of ISO/IEC JTC 1/SC 29 Member Secretary may provide an update.

7.4.3 JTC 1/SC 29 WG meetings:

The various SC 29/WG meetings are scheduled during 01 - 26 January 2024 Registration & participation of members in working group meetings has to be approved by the Committee and competent authority of BIS.

- ➢ WG 1 "JPEG Coding of digital representations of images" – 21 -26 Jan 2024
- ➢ WG 2 "MPEG Technical requirements" – 15 – 19 Jan 2024
- ➢ WG 3 "MPEG Systems" – 08 – 12 Jan 2024
- ➢ WG 4 "MPEG Video coding"– 22 – 26 Jan 2024
- ➢ WG 5 "MPEG joint video experts team with ITU-T SG 16" – 17- 26 Jan 2024
- ➢ WG 6 "MPEG Audio coding" – 22- 26 Jan 2024
- ➢ WG 7 "MPEG 3D graphics and haptics coding" – 22 – 26 Jan 2024
- ➢ WG 8 "MPEG Genomic coding" – 01 Jan 2024
- ➢ AG 2 – 21 - 26 Jan 2024
- ➢ AG 3 – 22 - 26 Jan 2024
- ➢ AG 5 – 17- 26 Jan 2024

Experts are expected to provide report of the participation in working group meeting and the report shall include:
1. Working group attended
2. Project of Working Group
3. Specific contribution by the expert for the project
4. Action item arising out of the meeting, specific to the project

DA-IICT was requested to provide an update on their WG participation to the BIS secretariat.

7.5 Standard of JTC 1/SC 29 & JTC 1/SC 24

7.5.1 The committee noted the information given in 7.5.1 of the agenda.

7.5.2 The committee noted the information given in 7.5.2 of the agenda.

7.6 DOCUMENTS DUE FOR VOTING

Following documents of JTC 1/SC 29 have been circulated for inputs of committee members, last date to provide inputs to JTC 1/SC 29 is mentioned in the agenda item 7.6.

The committee considered the information given in 7.6 of the agenda and members were requested to kindly review the document(s) due for voting which have already been circulated to the members and submit their inputs before the due date to the BIS secretariat.

The committee noted the list of documents given in 7.6 of the agenda and decided to confirm ISO/IEC 14496-23:2008 (Serial No. 4) since it is already published as Indian standard.

ITEM 8 DATE AND PLACE FOR THE NEXT MEETING

8.1 The committee **decided** to schedule the next meeting in 3rd week of February 2024 (preferably Monday / Friday in Hybrid Mode). Member Secretary to seek inputs from members regarding the mode of next meeting

(Online or Hybrid). The exact date and mode of meeting may be finalized in consultation with the Chairperson based on the inputs received from members.

ITEM 9 ANY OTHER BUSINESS

9.1 Various suggestions were received during the meeting regarding the active progress of work by this committee in formulating the relevant standards:

➢ To explore the possibility of involvement of students in the committee related work and the mapping of published standards with their course curriculum, including some possible lectures dedicated on Standards for the students community. Member Secretary clarified BIS has been conducting guest lectures in various institutes and apprise the committee of the institutions BIS has an MoU with.

➢ The committee may prepare a list of DPITT recognized startups relevant to the scope of LITD-23, and we should involve them in the standardization process.

➢ Various departments of the Govt. of India such as DST, MEITY (Two projects already approved for codes) are giving out research grants/projects to multiple companies/startups, with many relevant to the committee's scope. Efforts should be made to follow up with the concerned departments regarding the possibility of these funded research resulting in potential standards relevant to LITD-23.

9.2 There being no other items to be discussed, the meeting ended with vote of thanks to the Chairperson, the participants & the Member Secretary.