BUREAU OF INDIAN STANDARDS

AGENDA

Name of the Committee	No. of Meeting	Day	Date	Time	Mode
Instrument Transformers Sectional Committee, ETD 34	24th	Wednesday	25.09.2024	1430 h	Virtual

Item 0 GENERAL

0.1 Welcome and Opening Remarks by the Chairman

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 The minutes of the 23rd meeting of Instrument Transformers, Sectional Committee, ETD 34 held on 06-06-2024 was circulated vide BISDG letter No. ETD 34 dated 11-06-2024. No comments have been received.

The Committee may formally confirm the minutes.

Item 2 COMPOSITION OF ETD 34- INSTRUMENT TRANSFORMERS SECTIONAL COMMITTEE AND WORKING PANELS UNDER ETD 34 SECTIONAL COMMITTEE.

2.1 The present composition of ETD 34 Sectional Committee and Working Panels under ETD 34 is given in **Annex 1.**

The committee may note

2.2 Status of Participation of Members in the Previous Two Meetings.

The status of participation of Members in previous two meetings is attached at **Annex 2**

The Committee may note.

2.3 Notified Vacancy for membership in ETD 34 Sectional Committee.

The Notified vacancies for membership in ETD 34 Sectional Committee are given below:

Sl. No.	Category	No. of Vacancies
1	Academic Institution	2
2	Consumer Groups	4

The committee may note.

2.4 Sector Wise Classification of ETD 34 Sectional Committee

The sector wise classification of ETD 34 Sectional Committee is given at **Annex 3**

The committee may note

Item 3 NOMINATION/CO-OPTION REQUESTS FOR MEMBERSHIP IN ETD 34 SECTIONAL COMMITTEE

The following Nomination/Co-option requests have been received for membership in ETD 34 Sectional Committee.

Sl. No.	Name of the Organization	Name of the nominated representative
1	M/s Kappa Electricals	Dr. Mira Parasuram
2	In Individual Capacity	Mr. Pramod Govind Rao
3	In Individual Capacity	Mr. Vrajesh J Desai

The profile of the above nominations are attached at **Annex 4.** The committee may decide.

Item 4 ACTIONS ARISING OUT OF PREVIOUS MEETING

Sl. No.	Item No. of last minutes	Subject	Decision	Action Taken/Remarks
1	Sl. No. 2 of table under Item No. 5.	Preparation of new Indian standard on "**Condition Monitoring of Instrument Transformers**".	It was decided in the 23rd ETD 34 sectional committee meeting to circulate the draft on "Condition Monitoring of Instrument Transformers", submitted by the working panel responsible for the preparation of aforesaid draft as 'P-Draft' for '30 days' for the review of the same by the committee.	The draft submitted by the panel is attached at **Annex 5.** *The committee may review.*
2	Sl. No. 3 of table under Item No. 5.	**Revision of IS 4146: 1983** Application guide for voltage transformers and **IS 4201:1983** -Application guide for current transformers	The panel had requested for an extension of two months for the preparation of the draft in the 23rd ETD 34 sectional committee meeting. The committee considered the request and decided to provide an extension of 'two months' to the working panel ETD 34/P2 responsible for the preparation of working draft for the revision of IS 4146:1983 and IS 4201:1983.	The panel may update the committee.
4	Sl. No. 4 of table under Item No. 5.	**Revision of IS 5547: 1983** Application guide for Capacitor Voltage Transformers and **IS 6949:1973** - Summation current transformers	The panel had requested for an extension of two months for the preparation of the draft in the 23rd ETD 34 sectional committee meeting. The committee considered the request and decided to provide an extension of 'two months' to the working panel ETD 34/P2 responsible for the preparation of working draft for the revision of IS 5547:1983 and IS 6949:1973.	The panel may update t committee.
5	Sl. No. 5 of table under Item No. 6.	Revision of IS 16227 (Part 1): 2016/IEC 61869-1:2007- Instrument transformers: Part 1 general requirements	The panel had requested for additional time for the study of IEC 61689-1:2023 in the 23rd ETD 34 sectional committee meeting. The committee considered the request and decided to provide the working panel ETD 34/P2 'three months' time to complete the study of IEC 61689-1:2023 and prepare the draft for the revision of IS 16227 (Part 1):2016/IEC 61869-1:2007 in case any changes have been made in IEC 61869-1:2023.	The panel may update the committee.

6	Sl. No. 10 of table under Item No. 10	New Work Item Proposal (NWIP) for formulation of Indian Standard on Maintenance and Installation of Current Transformers and Potential Transformers.	It was decided in the 23rd ETD 34 Sectional Committee meeting to constitute a working panel constituting of the following members for the preparation of working draft for the formulation of Indian Standard on "Maintenance and Installation of Instrument Transformers". *a) Shri Akre G.V (M/s Hivoltrans, Halol, Gujarat)- Convenor* *b) Shri Mayank Yadav (M/s GE (T & D) India Limited, Noida)* *c) Dr. A. J. Chavda (M/s GETCO, Vadodara)* *d) Shri V. Rajasekharan (M/s Instrans Engineering and Manufacturing Pvt. Ltd, Bengaluru)* *e) Shri Chetas Parikh (M/s Narayan Powertech Pvt. Ltd, Vadodara)* *f) Shri S.K. Sharma (M/s Nortex, Jokhabad)* *g) Shri S B R Rao (M/s PGCIL, Gurugram)* The panel was requested to Prepare the working draft within 3 months.	The draft has been submitted by the panel and is attached at **Annex 6**. *The committee may review.*

Item 5 PRESENT POSITION OF WORK

The Programme of Work under ETD 34 Instrument Transformers Sectional Committee is given in **Annex 7.**

The committee may note.

Item 6 REVIEW OF INDIAN STANDARDS FOR REVISION/REAFFIRMATION

6.1 The Standards due for review are given in **Annex 8.**

The committee may review.

6.2 Indian Standards adopted from IEC which are due for review:

List of Adopted Indian Standards are given in **Annex 9.**

*The committee may review***.**

Item 7 COMMENTS RECEIVED ON INDIAN STANDARDS UNDER ETD 34 INSTRUMENT TRANSFORMERS SECTIONAL COMMITTEE

The following comments on Indian Standards under ETD 34 have been received.

Sl. No.	IS No. & Title	Commentator	Comments	Decision taken in last meeting	Remarks
1	IS 16227 (Part 4): 2015/ IEC 61869-4:2013-Instrument transformers Part 4 additional requirements of combined transformers	M/s MGVCL, Vadodara	Applicability on 11kV CTPT unit (Three Single Phase CTs and One Three Phase PT) since IS 16227 (Part 4) does not specifically applicable to combined CTPT unit having three single phase CTs and one three phase PT.	The committee has decided to seek clarification from IEC TC 38 regarding applicability of IS 61869-4:2013 on the combined Instrument transformers unit with the combination of Three Single Phase CTs and One Three Phase PT against the comments on IS 16227 (Part 4):2015/IEC 61869-4:2013 received from M/s MGVCL, Vadodara since IS 16227 (Part 4):2015 is an identical adoption of IEC 61869-4:2013 and the applicability of IEC 61869-4:2013 on the combined Instrument Transformers other than the combination of 1 CT and 1 PT is not specified in the said IEC standard.	Clarification is being sought from IEC 38 on IEC 61869-4:2013. *The committee may note*
2	IS 2705 (Part 1):1992-Current transformers - Specification: Part 1 general requirements (Second Revision)	Central Electricity Authority (CEA), New Delhi	It is to be informed that IS 2705 (Current Transformers-Specification) may be withdrawn after release of IS 16227. IS 2705 part-1 being still active. This is creating conflict for manufacturing and type testing. In this regard, instruction may be circulated to all concerned to stop using IS 2705 in testing and others.	The committee has been decided to withdraw IS 2705 (Part 1):1992 (Current Transformers-Specification: Part 1 general requirements) since another standard i.e. IS 16227 (Part 1):2016/IEC 61869-1:2007 (Instrument Transformers: Part 1 general requirements) has already been published and is in use at present.	Withdrawal is under progress. *The committee may note.*

Item 8 PROPOSAL RECEIVED THROUGH ANNUAL STANDARDIZATION PLAN (2024-2025) OF DEPARTMENT OF ATOMIC ENERGY, MUMBAI FOR FORMULATION OF INDIAN STANDARD

Sl. No.	Subject	Decision taken during last meeting	Remarks
1	Fly Back Transformers	The committee has decided to collect necessary inputs on the new work item proposal i.e. Formulation of Indian Standard on 'Fly Back transformers' received from Department of Atomic Energy, Mumbai before taking decision on the same.	Inputs is being sought. *The committee may note.*

Item 9 INTERNATIONAL ACTIVITIES

9.1 India is a 'P' (Participating) Member in the corresponding IEC/TC 38. Close interaction is being maintained with this Technical Committees by way of voting, sending India's comments on the

documents received from IEC and participating in the various IEC TC 38 meetings by the experts nominated.

The Programme of Work (POW) of **IEC TC 38** is given in **Annex 10**.

9.2 As a `P' member of above IEC/TC, India has an obligation to send voting on IEC drafts and comments wherever necessary. The details of voting/comments sent since 23rd meeting of ETD 34 is given in **Annex 11.**

The committee may note

9.3 Identification of IEC publications for harmonization

The Indian standards which were formulated/revised based on the IEC standards, are to be reviewed when the corresponding IEC standards are revised.

The committee may consider.

The list of published IEC Standards corresponding to IEC TC 38 is given at **Annex 12.**

9.4 Review of Nominated Experts in IEC TC 38

*The committee may nominate experts in the Working Groups in which there are no Experts nominated from India. The list of Working Groups under IEC TC 38 is given in **Annex 13**.*

9.5 Review of the Projects under IEC TC 38 and designation of experts

Sl. No.	Project No.	Title of the Project	TC	WG/MT/PT	Level of Interest (High/Medium/ Low)	Designated Expert
1	38/792/NP	Instrument transformers - Part 201: General requirements for Instrument Transformers for low voltage applications (≤1000 V AC and 1500 V DC)	TC 38		High	
2	38/793/CD	Instrument transformers - Part 7: Specific requirements for electronic Voltage Transformers	TC 38	WG 37	Medium	
3	38/794A/CD	Instrument transformers - Part 8: Specific requirements for Electronic Current Transformers	TC 38	WG 37	Medium	
4	38/802/CD	Instrument Transformers integrated with other devices - Requirements and tests	TC 38	WG 54	Medium	
5	38/797/CD	Instrument transformers - Part 14: Additional requirements for current transformers for DC applications	TC 38	MT 59	Medium	
6	38/798/CD	Instrument transformers - Part 15: Additional requirements for voltage transformers for DC applications	TC 38	MT 59	Medium	
7	38/799/CD	Instrument transformers - Part 2: Additional	TC 38	MT 58	High	

		requirements for current transformers				
8	38/800/CD	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers	TC 38	MT 58	High	
9	38/801/CD	Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers	TC 38	MT 58	High	
10	38/715/CD	Amendment 1 - Instrument transformers - Part 9: Digital interface for instrument transformers	TC 38	WG 37	Medium	

The committee may review and designate experts against the projects mentioned in the table above.

Item 10 DATE AND PLACE FOR THE NEXT MEETING

Item 11 TERMS OF REFERENCE (TORS) FOR RESEARCH AND DEVELOPMENT

The committee may submit Research and Development Proposals wherever necessary for the formulation of New Indian Standards or Review of Existing Indian Standards.

Item 12 ANY OTHER BUSINESS

ANNEX 1

ETD 34 – Instrument Transformers Sectional Committee Compositiom

S.No.	Organization	Member Name	Member Email	Member Phone	Role
1	IN INDIVIDUAL CAPACITY	Shri Dinkar Devate	dinkar.devate@gmail.com	9650992237	Chairperson
2	Bharat Heavy Electrical Limited, New Delhi	Shri Kulamani Naik	kmnaik@bhel.in	9425604732	Principal Member
		Shri Rakesh Yoganandi	ryoganandi@bhel.in		Alternate Member
		Shri Satendra Kumar	satendrakumar@bhel.in		Alternate Member
3	CG Power and Industrial Solutions, Mumbai	Mr. Uday Sanvatsarkar	uday.sanvatsarkar@cgglobal.com	9673333932	Principal Member
		Shri Santosh Bhong	santosh.bhong@cgglobal.com		Alternate Member
4	Calcutta Electric Supply Corporation Limited, Kolkata	Shri Santosh Chattopadhay	santosh.chattopadhyay@rpsg.in	9163361863	Principal Member
		Shri Rajiv Kumar Singh	rajiv.singh1@rpsg.in	9831869165	Alternate Member
5	Central Electricity Authority, New Delhi	Shri Bhanwar Singh Meena	bhanwar.cea@gov.in	8750251805	Principal Member
		Ms. Shivani Sharma	shivani.cea@gov.in	9717686780	Alternate Member
		Pankaj Kumar Verma	kvermap@nic.in	9654565269	Alternate Member
6	Central Power Research Institute, Bengaluru	Swaraj Kumar Das	skdas@cpri.in	9886643757	Alternate Member
		Shri S. Bhattacharya	bhattacharya@cpri.in	9425300080	Principal Member
7	Electrical Research and Development Association, Vadodara	Shri Ravi Nandwana	ravi.nandwana@erda.org	9887113514	Principal Member
		Shri Shailesh Patel	shailesh.patel@erda.org	9978940468	Alternate Member
8	GE T&D India Limited, Noida	Shri Subhash Kulkarni	subhash.kulkarni@ge.com	9740983954	Principal Member
		Mayank Yadav	mayank.yadav@ge.com	9740983956	Alternate Member
9	Gilbert and Maxwell Transformers Private Limited, Nashik	Shri Pradeep Deshpande	deshpandepa@hotmail.com	9822612511	Principal Member
10	Gujarat Energy Transmission Corporation Limited, Vadodara	Dr. A. J. Chavda	ceengg.getco@gebmail.com	9925209590	Principal Member
		Dipak Panchal	jeequip1.getco@gebmail.com	9925211076	Alternate Member
11	Hitachi Energy India Ltd., Karnataka, Bangalore	Ms. Geeta Joshi	geetha.joshi@hitachienergy.com	9601268745	Principal Member
		Shri Sunil Nannaware	sunil.nannaware@hitachienergy.com	9970994051	Alternate Member
		Shri Mahesh Dorlikar	mahesh.dorlikar@hitachienergy.com	9673336479	Alternate Member
12	Hivoltrans, Halol, Gujarat	Shri Shitij Khattar	shitij@vishalgroup.in	9897022000	Alternate Member
		Shri Chowdhury Roy.A.	aroy@hivoltrans.com		Alternate Member
		Shri Akre G.V.	gvakre@hivoltrans.com	9824063410	Principal Member
13	Indian Electrical and Electronics Manufacturers Association, New Delhi	Pragati Sohoni	pragati.sohoni@ieema.org	9820071173	Principal Member
		Shri Kumar Rahul	kumar.rahul@ieema.org	8789098209	Alternate Member
14	Instrans Engineering and Manufacturing Private Limited, Bengaluru	Shri V. Rajasekharan Nair	instrans@zoho.com	9841544083	Alternate Member
		Shri Kishor S. Jinsiwale	instrans@dataone.in	9845033173	Principal Member
15	JSL Industries Limited, Anand	Shri A. D. Mistry	admistry@jslmogar.com	9726771680	Principal Member
		V. N. Prajapati	vnprajapati@jslmogar.com	9328157910	Alternate Member
16	Kapco Electric Private Limited, Noida	Shri S. D. Kulkarni	sdkulkarni@kapco.in	9810001660	Principal Member
17	Ministry of Heavy Industries and Public Enterprises, New Delhi	Gaurav Joshi	joshi.gk@gov.in	7767001479	Principal Member
		Sureshwar Singh Bonal	dirhei-mhi@gov.in	9718667619	Alternate Member
18	NTPC Limited, New Delhi	Shri S. N. Tripathi	shaktintripathi@ntpc.co.in	9650999688	Principal Member
		Shri Amit Kumar Sah	amitkumarsah@ntpc.co.in	9437579976	Alternate Member
19	Narayan Powertech Private Limited, Vadodara	Chetas Parikh	chetas@narayanpowertech.com	9227569367	Principal Member
20	Nortex, Jokhabad	Shri Saseendran V.	nortexmarketing@gmail.com	9899168373	Alternate Member

		Shri S.K. Sharma	nortex_delhi@hotmail.com	9810076230	Principal Member
21	Power Grid Corporation of India, Gurugram	Shri S B R Rao	sbrao@powergrid.in	9971399088	Alternate Member
		Shri Dheeraj Srivastava	dheeraj@powergridindia.com	9717890976	Alternate Member
		Shri A.P. Gangadharan	apganga@powergrid.in	9910378122	Principal Member
22	Pragati Electrical private Limited, Mumbai	Shri Sajin K.T.	sajin.kt@pragatielectricals.com	9916924430	Alternate Member
		Shri Prashant. P. Gune	prashant.gune@pragatielectricals.com	9664451600	Principal Member
23	Siemens Limited, Mumbai	Shri Jyotirmoy Dutta	jyotirmoy.dutta@siemens.com	9860442059	Principal Member
		Shri Vishnu Ingle	vishnu.ingle@siemens.com	9049990054	Alternate Member
24	Yadav Measurements Private Limited, Udaipur	Balmukund M Vyas	Balmukund.vyas@yadavmeasurements.com	9829267374	Principal Member
		Shri Narendra Paliwal	narendra.paliwal@yadavmeasurements.com	9784635386	Alternate Member
		Vivek Jaiswal	Vivek.Jaiswal@yadavmeasurements.com	8586831503	Alternate Member

Composition of Working Panels under ETD 34 Sectional Committee

Working Panel 1- Formulation of Indian standard on "Condition Monitoring of Instrument Transformers"

Sl. No.	Name of the Member	Name of the Organization
1	Shri G.V. Akre- Convenor	M/s Hivoltrans, Gujrat
2	Ms Seema Soni	PGCIL, Gurugram
3	Shri Uday Sanvatsarkar,	M/s CG Power and Industrial Solutions, Mumbai
4	Ms. Geetha Joshi	M/s Hitachi Energy India Ltd, Bangalore
5	Shri Swaraj Kumar Das	CPRI, Bengaluru
6	Shri Shailesh Patel	ERDA, Vadodara
7	Shri Kiran Kelapure	Yadav Measurements Pvt. Ltd, Udaipur
8	Shri Y.V. Joshi	GETCO, Gujarat

Working Panel 2- Revision of IS 4146:1983, IS 4201:1983 IS 5547:1983, IS 6949:1973 and IS 16227 (Part 1):2016

Sl. No.	Name of the Member	Name of the Organization
1	Shri G.V. Akre- Convenor	M/s Hivoltrans, Gujrat
2	Shri Uday Sanvatsarkar,	M/s CG Power and Industrial Solutions, Mumbai
3	Ms. Geetha Joshi	M/s Hitachi Energy India Ltd, Bangalore
4	Shri Shailesh Patel	ERDA, Vadodara
5	Shri Kiran Kelapure	Yadav Measurements Pvt. Ltd, Udaipur
6	Shri Pradeep Deshpande	M/s Gilbert & Maxwell Trans. Pvt. Ltd

Working Panel 3- Formulation of Indian Standard on "Maintenance and Installation of Instrument Transformers

Sl. No.	Name of the Member	Name of the Organization
1	Shri G.V. Akre- Convenor	M/s Hivoltrans, Gujrat
2	Shri Mayank Yadav	M/s GE (T & D) India Limited, Noida
3	Dr. A. J. Chavda	GETCO, Gujarat
4	Shri V. Rajasekharan	M/s Instrans Engineering and Manufacturing Pvt. Ltd, Bengaluru
5	Shri Chetas Parikh	M/s Narayan Powertech Pvt. Ltd, Vadodara
6	Shri S.K. Sharma	M/s Nortex, Jokhabad
7	Shri S B R Rao	PGCIL, Gurugram

ANNEX 7
ETD 34 – Instrument Transformers Sectional Committee
Programme of Work (POW)

Sl. No.	IS No.	TITLE	Degree of Equivalence.
1	IS 16227 (Part 1): 2016/ IEC 61869-1: 2007	Instrument transformers: Part 1 general requirements	Identical under dual numbering
2	IS 16227 (Part 2): 2016/ IEC 61869-2: 2012	Instrument transformers: Part 2 additional requirements for current transformers	Identical under dual numbering
3	IS 16227 (Part 3) :2015/ IEC 61869-3: 2011	Instrument transformers: Part 3 additional requirements for inductive voltage transformers	Identical under dual numbering
4	IS 16227 (Part 4):2015/ IEC 61869-4: 2013	Instrument transformers: Part 4 additional requirements for combined transformers	Identical under dual numbering
5	IS 16227 (Part 5) :2015/ IEC 61869-5: 2011	Instrument transformers: Part 5 additional requirements for capacitors voltage transformers	Identical under dual numbering
6	IS 16227 (Part 6): 2018/ IEC 61869-6:2016	Instrument transformers: Part 6 additional general requirements for low - Power instrument transformers	Identical under dual numbering
7	IS 16227 (Part 9): 2018/ IEC 61869-9:2016	Instrument transformers: Part 9 digital interface for instrument transformers	Identical under dual numbering
8	IS 16227 (Part 100): 2018/ IEC 61869-100:2017	Instrument transformers: Part 100 guidance for application of current transformers in power system protection	Identical under dual numbering
9	IS 16227 (Part 102): 2018/ IEC/TR 61869-102:2014	Instrument transformers: Part 102 ferro resonance oscillations in substations with inductive voltage transformers	Identical under dual numbering
10	IS 16227 (Part 103): 2018/ IEC/TR 61869-103: 2012	Instrument Transformers part 103 the use of instrument Transformers for power quality Measurement	Identical under dual numbering

11	IS 16855 (Part 1): 2018/ IEC 62689 -1: 2016	Current and voltage sensors or detectors, to be used for fault passage indication purposes: Part 1 general principles and requirements	Identical under dual numbering
12	IS 16855 (Part 2):2018/ IEC 62689-2: 2016	Current and Voltage Sensors or Detectors to be used for Fault Passage Indication Purposes part 2 System Aspects	Identical under dual numbering
13	IS 16855 (Part 100): 2019/ IEC 62689-100: 2016	Current and voltage sensors or detectors to be used for fault passage indication purposes: Part 100 requirements and proposals for the IS/IEC 61850 series data model extensions to support fault passage indicators applications	Identical under dual numbering
14	IS 2705 (Part 1) :1992	Current transformers - Specification: Part 1 general requirements (Second Revision)	Indigenous
15	IS 4146: 1983	Application guide for voltage transformers (First Revision)	Indigenous
16	IS 4201: 1983	Application guide for current transformer (First Revision)	Indigenous
17	IS 5547: 1983	Application guide for capacitor voltage transformers (First Revision)	Indigenous
18	IS/IEC 60044-7:1999	Instrument transformers: Part 7 electronic voltage transformers	Identical under single numbering
19	IS/IEC 60044-8 :2002	Instrument transformers: Part 8 electronic current transformers	Identical under single numbering
20	IS 6949: 1973	Specification for summation current transformers	Indigenous

ANNEX 8
List of Indian Standards due for Review

Sl. No	Title of Indian Standard	IS No.	Degree of Equivalence
1	Application guide for capacitor voltage transformers (First Revision)	IS 5547 : 1983	Indigenous
2	Specification for summation current transformers	IS 6949 : 1973	Indigenous
3	Application guide for voltage transformers	IS 4146:1983	Indigenous
4	Application guide for current transformers	IS 4201:1983	Indigenous
5	Instrument transformers: Part 1 general requirements	IS 16227 : Part 1 : 2016/ IEC 61869-1:2007	Identical under Dual Numbering
6	Instrument transformers: Part 100 guidance for application of current transformers in power system protection	IS 16227 : Part 100:2018/ IEC 61869-100:2017	Identical under Dual Numbering
7	Instrument transformers: Part 3 additional requirements for inductive voltage transformers	IS 16227 : Part 3 : 2015/ IEC 61869-3: 2011	Identical under Dual Numbering
8	Instrument transformers: Part 5 additional requirements for capacitors voltage transformers	IS 16227 : Part 5 : 2015/ IEC 61869-5: 2011	Identical under Dual Numbering
9	Instrument transformers: Part 4 additional requirements for combined transformers	IS 16227 : Part 4 : 2015/ IEC 61869-4: 2013	Identical under Dual Numbering
10	Instrument transformers: Part 2 additional requirements for current transformers	IS 16227 : Part 2 : 2016/ IEC 61869-2: 2012	Identical under Dual Numbering
11	Instrument transformers: Part 8 electronic current transformers	IS/IEC 60044 : Part 8 :2002	Identical under Single Numbering
12	Current and voltage sensors or detectors, to be used for fault passage indication purposes: Part 1 general principles and requirements	IS 16855 : Part 1 : 2018/ IEC 62689-1: 2016	Identical under Dual Numbering.
13	Instrument Transformers part 103 The use of instrument Transformers for power quality Measurement	IS 16227 : Part 103: 2018/ IEC/TR 61869-103:2012	Identical under Dual Numbering
14	Current and Voltage Sensors or Detectors to be used for Fault Passage Indication Purposes part 2 System Aspects	IS 16855 : Part 2 : 2018/ IEC 62689-2 : 2016	Identical under Dual Numbering
15	Instrument transformers: Part 102 ferro resonance oscillations in substations with inductive voltage transformers	IS 16227 : Part 102 : 2(IEC/TR 61869-102: 20	Identical under Dual Numbering
16	Current and voltage sensors or detectors to be used for fault passage indication purposes: Part 100 requirements and proposals for the IS/IEC 61850 series data model extensions to support fault passage indicators applications	IS 16855 : Part 100 : 2019/IEC 62689-100 : 2016	Identical under Dual Numbering
17	Instrument transformers: Part 6 additional general requirements for low - Power instrument transformers	IS 16227 : Part 6 : 2018/ IEC 61869-6 : 2016	Identical under Dual Numbering.

ANNEX 9
Adopted Indian Standards due for Review

Sl. No.	Title of Indian Standards	IS No.	Status of IEC Standard	Degree of Equivalence	Status
1	Instrument transformers: Part 1 general requirements	IS 16227 : Part 1 : 2016/ IEC 61869-1:2007	IEC 61869-1:2023	Identical under Dual Numbering	IEC 61869-1:2023 under review
2	Instrument transformers: Part 100 guidance for application of current transformers in power system protection	IS 16227 : Part 100:2018/ IEC 61869-100:2017	IEC TR 61869-100:2017	Identical under Dual Numbering	Decision taken for Reaffirmation
3	Instrument transformers: Part 3 additional requirements for inductive voltage transformers	IS 16227 : Part 3 : 2015/ IEC 61869-3: 2011	IEC 61869-3: 2011	Identical under Dual Numbering	Decision taken for Reaffirmation
4	Instrument transformers: Part 5 additional requirements for capacitors voltage transformers	IS 16227 : Part 5 : 2015/ IEC 61869-5: 2011	IEC 61869-5: 2011	Identical under Dual Numbering	Decision taken for Reaffirmation
5	Instrument transformers: Part 4 additional requirements for combined transformers	IS 16227 : Part 4 : 2015/ IEC 61869-4: 2013	IEC 61869-4: 2013	Identical under Dual Numbering	Decision taken for Reaffirmation
6	Instrument transformers: Part 8 electronic current transformers	IS/IEC 60044 : Part 8 :2002	IEC 60044 : Part 8 :2002	Identical under Single Numbering	Decision taken for Reaffirmation
7	Current and voltage sensors or detectors, to be used for fault passage indication purposes: Part 1 general principles and requirements	IS 16855 : Part 1 : 2018/ IEC 62689-1: 2016	IEC 62689-1: 2016	Identical under Dual Numbering	Decision taken for Reaffirmation
8	Instrument Transformers part 103 The use of instrument Transformers for power quality Measurement	IS 16227 : Part 103: 2018/ IEC/TR 61869-103:2012	IEC/TR 61869-103:2012	Identical under Dual Numbering	Decision taken for Reaffirmation
9	Current and Voltage Sensors or Detectors to be used for Fault	IS 16855 : Part 2 : 2018/ IEC 62689-2 :	IEC 62689-2 : 2016	Identical under Dual Numbering	Decision taken for Reaffirmation

	Passage Indication Purposes part 2 System Aspects	2016			
10	Instrument transformers: Part 102 ferro resonance oscillations in substations with inductive voltage transformers	IS 16227 : Part 102 2018/ IEC/TR 61869-102 2014	IEC/TR 61869-102: 2014	Identical under Dual Numbering	Decision taken for Reaffirmation
11	Current and voltage sensors or detectors to be used for fault passage indication purposes: Part 100 requirements and proposals for the IS/IEC 61850 series data model extensions to support fault passage indicators applications	IS 16855 : Part 100 : 2019/ IEC 62689-100 : 2016	IEC TR 62689-100:2016	Identical under Dual Numbering	Decision taken for Reaffirmation
12	Instrument transformers: Part 6 additional general requirements for low - Power instrument transformers	IS 16227 : Part 6 : 2018/ IEC 61869-6 : 2016	IEC 61869-6:2016 has been withdrawn and replaced by IEC 61869-6 :2023.	Identical under Dual Numbering	

ANNEX 11

Balloting done since 06.06.2024

Document Number	Last Date	Comments
38/793/CD	30-08-2024	Comments submitted
38/794A/CD	30-08-2024	Comments submitted

ANNEX 12

TC 38 Publications	
Reference	**Title**
IEC 60044-7:1999	Instrument transformers - Part 7: Electronic voltage transformers
IEC 60044-8:2002	Instrument transformers - Part 8: Electronic current transformers
IEC 61869-1:2023	Instrument transformers - Part 1: General requirements
IEC 61869-2:2012	Instrument transformers - Part 2: Additional requirements for current transformers
IEC 61869-2:2012/ISH1:2022	Interpretation Sheet 1 - Instrument transformers - Part 2: Additional requirements for current transformers
IEC 61869-3:2011	Instrument transformers - Part 3: Additional requirements for inductive voltage transformers
IEC 61869-4:2013	Instrument transformers - Part 4: Additional requirements for combined transformers
IEC 61869-4:2013/COR1:2014	Corrigendum 1 - Instrument transformers - Part 4: Additional requirements for combined transformers
IEC 61869-5:2011	Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers
IEC 61869-5:2011/COR1:2015	Corrigendum 1 - Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers
IEC 61869-9:2016	Instrument transformers - Part 9: Digital interface for instrument transformers
IEC 61869-10:2017	Instrument transformers - Part 10: Additional requirements for low-power passive current transformers
IEC 61869-11:2017	Instrument transformers - Part 11: Additional requirements for low power passive voltage transformers
IEC 61869-11:2017/ISH1:2021	Interpretation sheet 1 - Instrument transformers - Part 11: Additional requirements for low-power passive voltage transformers
IEC 61869-13:2021	Instrument transformers - Part 13: Stand-alone merging unit (SAMU)
IEC 61869-14:2018	Instrument transformers - Part 14: Additional requirements for current transformers for DC applications
IEC 61869-15:2018	Instrument transformers - Part 15: Additional requirements for voltage transformers for DC applications
IEC 61869-99:2022	Instrument transformers - Part 99: Glossary
IEC 61869-99:2022/COR1:2023	Corrigendum 1 - Instrument transformers - Part 99: Glossary
IEC TR 61869-100:2017	Instrument transformers - Part 100: Guidance for application of current transformers in power system protection
IEC TR 61869-100:2017/COR1:2023	Corrigendum 1 - Instrument transformers - Part 100: Guidance for application of current transformers in power system protection
IEC TR 61869-102:2014	Instrument transformers - Part 102: Ferroresonance oscillations in substations with inductive voltage transformers
IEC TR 61869-103:2012	Instrument transformers - The use of instrument transformers for power quality measurement
IEC 62689-1:2016	Current and voltage sensors or detectors, to be used for fault passage indication purposes - Part 1: General principles and requirements
IEC 62689-2:2016	Current and voltage sensors or detectors, to be used for fault passage indication purposes - Part 2: System aspects
IEC TR 62689-100:2016	Current and voltage sensors or detectors, to be used for fault passage indication purposes - Part 100: Requirements and proposals for the IEC 61850 series data model extensions to support fault passage indicators applications

ANNEX 13

List of Working Groups under IEC TC 38 for nomination of experts

TC/SC (IEC website)	WG/PT/ MT/JWG	Membership	Titles	ETD	Member Secretary	Expert Nominated
TC 38		P	Instrument Transformers	ETD 34	Abinash Bordoloi	NA
	WG 37	P	Specific Clauses for Electronic Voltage Transformers (future IEC 61869-7), for Electronic Current Transformers (future IEC 61869-8) and Digital Interface for Instrument Transformers (future IEC 61869-9).	ETD 34	Abinash Bordoloi	No
	WG 39	P	IEV 321	ETD 34	Abinash Bordoloi	No
	WG 45	P	Standard Mathematical Models for Instrument Transformers	ETD 34	Abinash Bordoloi	No
	WG 47	P	Evolution of Instrument transformer requirements for the modern market	ETD 34	Abinash Bordoloi	Yes (Mr. Mayank Yadav, GE (T & D Limited, Noida)
	WG 54	P	Instrument Transformers integrated with other devices	ETD 34	Abinash Bordoloi	No
	WG 57	P	Safety requirements of Instrument Transformers for high voltage applications	ETD 34	Abinash Bordoloi	No
	PT 61869-106	P	Selection and interfacing of Instrument Transformers for wide bandwidth applications	ETD 34	Abinash Bordoloi	No
	MT 58	P	Maintenance of IEC 61869-2, IEC 61869-3 and IEC 61869-5	ETD 34	Abinash Bordoloi	No
	MT 59	P	Maintenance of IEC 61869-14 and IEC 61869-15	ETD 34	Abinash Bordoloi	No
	JWG 55	P	Uncertainty evaluation in the accuracy test of Instrument Transformers	ETD 34	Abinash Bordoloi	No
	JWG 56	P	Station Service Voltage Transformers (SSVT) linked to IEEE PES “The Power & Energy Society”	ETD 34	Abinash Bordoloi	No
	AG CAG	P	Chair’s Advisory Group	ETD 34	Abinash Bordoloi	No