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**BUREAU OF INDIAN STANDARDS**

**AGENDA**

**Mechanical Vibration and Shock 30th Meeting**

**Condition Monitoring Sectional Committee, MED 28**

**Date, Day & Time :**

**Monday, 23 December, 2024, 10:30 AM**

**Venue :Webex**

**Meeting link:** <https://bismanak.webex.com/bismanak/j.php?MTID=m10f7e40164603c7e1e8f09d0dfe4899f>

**Password: MED28**

**0 GENERAL**

* 1. **WELCOME REMARKS BY HEAD (MECHANICAL)**
  2. **OPENING REMARKS BY THE CHAIRMAN**

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

The minutes of the 29th meeting of “Mechanical Vibration and Shock Condition Monitoring Sectional Committee, MED 28” held on 12 September 2024, were circulated to the members to our letter MED28/A2-2.29 dated on 20 September.

No comments on the recording of accuracy of minutes received.

*The committee may kindly confirm the minutes of the last meeting.*

**ITEM 2 ACTION TAKEN ON MINUTES OF THE LAST MEETING**

**2.1** The actions taken on decision of last meeting of Mechanical Vibration and Shock Condition Monitoring Sectional Committee, MED 28 are as follows:

| **Sr No** | **Item No\*** | **Decision taken during the 29th meeting** | **Action taken/Status** |
| --- | --- | --- | --- |
| 1 | Item 2.1 S. No. 3 | IS/ISO 7919-3 : 2009 Mechanical vibration - Evaluation of machine vibration by measurements on rotating shafts: Part 3 coupled industrial machines  ISO 7919-3 will be withdrawn once ISO 20816-3 is published. The document MED 28(24436) is currently under final stages of Publication. | IS/ISO 20816-3 : 2022 has been published. The document is attached below:  [IS ISO 20816 part 3.pdf](https://drive.google.com/file/d/1j8qo4d-2hfA7mcRxqbgqqId_0bYomGIP/view?usp=sharing)    *The committee may kindly* ***note****.* |
| 2 | Item 2.1 S. No. 6 | IS 14817 (Part 3) : 2017/ IS0 10816-3 : 1995 Mechanical vibration - Evaluation of machine vibration by measurements on non - Rotating parts: Part 3 industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15 000 r/min when measured in situ (First Revision)  Withdrawal of IS 14817 (Part 3) : 2017/ ISO 10816-3 : 1995 will be done once ISO 20816-3 is published.  *The committee noted the information.* | IS/ISO 20816-3 : 2022 has been published. The document is attached below:  [IS ISO 20816 part 3.pdf](https://drive.google.com/file/d/1j8qo4d-2hfA7mcRxqbgqqId_0bYomGIP/view?usp=sharing)    *The committee may kindly* ***note****.* |
| 3 | Item 2.1 S. No. 7 | Amd 1 to IS 14817 (Part 6) : 2004/ ISO 10816-6 : 1995 Mechanical vibration - Evaluation of machine vibration by measurements on non - Rotating parts: Part 6 reciprocating machines with power rating above 100 kW  Document is currently under Publication.  The committee noted the information. | The amendment No 1 to IS 14817 (Part 6) has been published.  *The committee may kindly* ***note****.* |
| 4 | Item 2.1 S. No. 8 | Amd 1 to IS 14910 : 2001/ ISO 8727:1997 Mechanical vibration and shock - Human exposure - Biodynamics coordinate systems  Document is currently under Publication.  The committee noted the information. | The amendment No. 1 to IS 14910 : 2001 has been published.  *The committee may kindly* ***note****.* |
| 5 | Item 2.1 S. No. 9 | Amd 1 to IS/ISO 18431-1 : 2005 Mechanical vibration and shock - Signal processing: Part 1 general introduction  Document is currently under Publication.  The committee noted the information. | *See also Item 2.1 S. No. 10*  The amendment No. 1 to IS/ISO 18431-1 : 2005 “Mechanical Vibration and Shock-Signal Processing Part 1 General Introduction” have been published.  *The committee may kindly* ***note****.* |
| 6 | Item 2.1 S. No. 13 | Periodic review of Standards IS 13276 (Part 1) : 2000/ISO 2631-1:1997 and IS 14732 : 2000/ISO 6897 : 1984  Shri N V Karanth, Expert in Personal Capacity agreed to review standards IS 13276 (Part 1) : 2000/ISO 2631-1:1997 and IS 14732 : 2000/ISO 6897 : 1984 at the earliest and provide his recommendations. MS to send a reminder for the same.  *Decision to be taken during the next committee meeting.* | Reminder sent vide email dt. 23 August 2024.  Amd 1 to IS 13276 part 1 published in June 2024.  Shri NV Karanth vide his email dt. 03 December 2024 has recommended for reaffirmation of both the standards.  [*Shri Nagesh Karanath\_Review Recommendation.pdf*](https://drive.google.com/file/d/14DG7nZoyU9AxpPbunzNaguftebdFRQUl/view?usp=sharing)  *Committee may approve the standards for reaffirmation.* |
| 7 | Item 2.1 S. No. 14 | Periodic review of Standards IS/ISO 14963 : 2003  Dr Manish Shrikhande of Indian Institute of Technology, Roorkee was not available during the meeting. Dr. Anil Kumar of Indian Institute of Technology Roorkee agreed to remind Dr. Manish Srikhande to review standard IS/ISO 14963 : 2003 and provide his recommendations. MS to send a reminder for the same.  *Decision to be taken during the next committee meeting.* | Recommendations not received yet.  Reminder sent vide email dt. 17 December 2024.  [14963 reminder email.pdf](https://drive.google.com/file/d/1amFRu60RY8O-gX5oiM_P0dwis6LMTePS/view?usp=sharing)  [*ISO 14963;2003 ed.1 - id.38492 Publication PDF (en).pdf*](https://drive.google.com/file/d/1tcJzeTLMuTo-uCD_xf5wntCh3osh9gkw/view?usp=drive_link)  ISO standard remains current.  *Committee may discuss and decide.*  *Committee may approve the standard for reaffirmation.* |
| 8 | Item 2.1 S. No. 15 | Periodic review of Standards IS/ISO 21940-31 : 2013 and IS/ISO 21940-32 : 2012  Shri Uppuluri Sridhar, Expert in Personal Capacity agreed to review standards IS/ISO 21940-31 : 2013 and IS/ISO 21940-32 : 2012 and provide his recommendations at the earliest. MS to send a reminder for the same.  *Decision to be taken during the next committee meeting.* | Recommendations not received yet.  Reminder sent vide email dt. 17 December 2024.  [*21940-31,32 reminder email.pdf*](https://drive.google.com/file/d/1b37to-8gzZ933z0smP7lPk7RQuUVnYbm/view?usp=sharing)  [*IS-ISO 21940-31\_2013.pdf*](https://drive.google.com/file/d/17nQuGxwDl4jrVtSSbuJRppeOvIIMEPho/view?usp=drive_link)[*IS-ISO 21940-32\_2012.pdf*](https://drive.google.com/file/d/1oteExcy8f6nz8QM5Kkv6sYXv59OkvARI/view?usp=drive_link)  ISO standard remains current.  *Committee may discuss and decide.*  *Committee may approve the standard for reaffirmation.* |
| 9 | Item 2.1 S. No. 16 | Periodic review of Standards IS/ISO 21940-14 : 2012 and IS/ISO 21940-23 : 2012  Dr. Anil Kumar of Indian Institute of Technology Roorkee agreed to review standards IS/ISO 21940-14 : 2012 and IS/ISO 21940-23 : 2012 and provide his recommendations at the earliest. MS to send a reminder for the same.  *Decision to be taken during the next committee meeting.* | Recommendations not received yet.  Reminder sent vide email dt. 17 December 2024.  [ISo 21940-23,14 reminder'.pdf](https://drive.google.com/file/d/1TcUuewZOEbY8ICgLJSjtFkMqmR1QiW21/view?usp=sharing)  [*IS-ISO 21940-14\_2012.pdf*](https://drive.google.com/file/d/1ikZRDRjc6o4SX4Q-kipN-GfhF7NsjD-u/view?usp=drive_link)[*IO21940\_14A1.pdf*](https://drive.google.com/file/d/1JndMoVZ-N1SdN7rXMD8bUlo-J_iPj4NX/view?usp=drive_link)[*IS-ISO 21940-23\_2012.pdf*](https://drive.google.com/file/d/1vcLSMmFejJzXwje7EMGUnvjDkstu_426/view?usp=drive_link)  ISO standard remains current.  *Committee may discuss and decide.*  *Committee may approve the standard for reaffirmation.* |
| 10 | Item 2.1 S. No. 17 | Periodic review of Standards IS/ISO 18431-1 : 2005  Dr. A. Rama Rao, Expert in Personal Capacity agreed to review standards IS/ISO 18431-1 : 2005 and provide his recommendations at the earliest. MS to send a reminder for the same.  *Decision to be taken during the next committee meeting.* | *See Also Item 2.1 S. No. 5*  Dr. Rama Rao vide his email dt. 30 September 2024 has provided his recommendations and is attached herein.  [18431 all parts comments by Rama Rao sir.pdf](https://drive.google.com/file/d/1YDIWE-guV-HfhkpwNwn14ZGUKt3FznRc/view?usp=sharing), [ISO\_commenting\_template .doc](https://docs.google.com/document/d/1i4IpCFwtz80otRrEWZn5m1iYAQpwsC4k/edit?usp=sharing&ouid=116383954287804013918&rtpof=true&sd=true)  *Committee may discuss and decide.*  *Committee may approve the document to reaffirm.* |
| 11 | Item 5.3 | Nominations of Members   1. Dr. A. Rama Rao, Expert in Personal Capacity informed that new nomination from BARC is under process and will be sent to MED 28 sectional committee. He requested MS to send a reminder and also CC the email to him.   .   1. Shri Manish Agarwal, Chairman MED 28 sectional committee agreed to contact Defence Research and Development Organization, Research Centre Imarat, Hyderabad for their nomination. He requested MS to send a reminder and also CC the email to him. 2. Dr. Anil Kumar of IIT, Roorkee informed that Dr. Seshadri Sekhar is now Director of IIT Palakkad, Kerala, hence new nominations may be requested from IIT, Madras, Chennai. | 1. New nomination received   *See Item 5.4.2 S. No. 1*   1. Reminder Sent vide email dt. 18 December 2024.   [Participation reminder DRDO.pdf](https://drive.google.com/file/d/1KZZOPVfJaWo4p4SgcIfnRt0t9tCJZzlD/view?usp=sharing)   1. Email sent for revised nominations.   *Committee may discuss and decide.* |
| 12 | Item 7.2 S. No. 30 | IS/ISO 20816-2 : 2017 Mechanical Vibration — Measurement and Evaluation of Machine Vibration Part 2 Land-Based Gas Turbines, Steam Turbines and Generators in Excess of 40 MW, with Fluid-Film Bearings and Rated Speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min ( First Revision)  This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current.  This standard has one amendment.  [ISO 20816-2;2017\_Amd 1;2024 ed.1 - id.87294 Publication PDF (en).pdf](https://drive.google.com/file/d/1M03X_vebtqnUs60XdgP0TqXUe33WTD9W/view?usp=sharing)  *Committee approved for adoption of the amendment.* | Draft amendment put up for Wide Circulation on 18 December 2024 for 30 days.  *Committee may note the information.* |
| 13 | Item 9.6 | Standards by ISO/TC 108   1. ISO 2017-2:2007 Mechanical vibration and shock — Resilient mounting systems — Part 2: Technical information to be exchanged for the application of vibration isolation associated with railway systems      1. ISO 2017-3:2015 Mechanical vibration and shock — Resilient mounting systems — Part 3: Technical information to be exchanged for application of vibration isolation to new buildings 2. ISO 5347-8:1993 Methods for the calibration of vibration and shock pick-ups — Part 8: Primary calibration by dual centrifuge 3. ISO 5347-12:1993 Methods for the calibration of vibration and shock pick-ups — Part 12: Testing of transverse shock sensitivity 4. ISO 5347-13:1993 Methods for the calibration of vibration and shock pick-ups — Part 13: Testing of base strain sensitivity   Standards by ISO TC 108/SC 2   1. ISO 4863:1984 Resilient shaft couplings — Information to be supplied by users and manufacturers 2. ISO 8002:1986 Mechanical vibrations — Land vehicles — Method for reporting measured data 3. ISO 8608:2016 Mechanical vibration — Road surface profiles — Reporting of measured data 4. ISO 10816-7:2009 Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts — Part 7: Rotodynamic pumps for industrial applications, including measurements on rotating shafts 5. ISO 10816-21:2015 Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts — Part 21: Horizontal axis wind turbines with gearbox   Standards by ISO/TC 108/SC 4   1. ISO 2631-4:2001 Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 4: Guidelines for the evaluation of the effects of vibration and rotational motion on passenger and crew comfort in fixed-guideway transport systems 2. ISO 2631-5:2018 Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 5: Method for evaluation of vibration containing multiple shocks 3. ISO 10326-2:2022 Mechanical vibration — Laboratory method for evaluating vehicle seat vibration — Part 2: Application to railway vehicles 4. ISO/TR 10687:2022 Mechanical vibration — Description and determination of seated postures with reference to whole-body vibration   Standards by ISO/TC 108/SC 5   1. ISO 13372:2012 Condition monitoring and diagnostics of machines — Vocabulary 2. ISO 13374-1:2003 Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 1: General guidelines 3. ISO 13374-2:2007 Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 2: Data processing 4. ISO 13374-3:2012 Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 3: Communication 5. ISO 13374-4:2015 Condition monitoring and diagnostics of machine systems — Data processing, communication and presentation — Part 4: Presentation   Standards by ISO/TC 108/SC 6   1. ISO 15261:2004 Vibration and shock generating systems — Vocabulary 2. ISO 10813-4:2022 Vibration generating machines — Guidance for selection — Part 4: Equipment for multi-axial environmental testing 3. ISO 10813-2:2019 Vibration-generating machines — Guidance for selection — Part 2: Equipment for dynamic structural testing 4. ISO 10813-1:2023 Vibration generating machines — Guidance for selection — Part 1: Equipment for environmental testings   *Committee agreed to go through the 5 standards each of ISO TC 108 and it’s SCs which were sent by email on 30 August and decision on their adoption to be taken in the next committee meeting.*  [List of ISO Standard for Review of ISO/TC 180](https://drive.google.com/drive/folders/1MPhQwU9ahe8spEF7-IHhDQwSrD1jvgfr?usp=drive_link) | Recommendations not received yet.  *Committee may discuss and decide.* |
| 14 | Item 15 | NWIP on Smart Vibration Monitoring Terminal  A New Work Item Proposal has been received from Smt. Chitra Gautam of CSIR-NPL, New Delhi on Smart Vibration Monitoring Terminal.  [NWIP proposal from Chitra Ma'am.pdf](https://drive.google.com/file/d/1Z2C0BYPxwWDENp3Y6HjehVQQ6XxDP0o1/view?usp=sharing), [SD\_03092024\_104256\_1.pdf](https://drive.google.com/file/d/1fL8vk3fsJGH0BJehwjZ-FyYIAkhSQmk-/view?usp=sharing)  Committee requested Dr Chitra Gautam to submit a detailed proposal of the NWIP(Smart Vibration Monitoring Terminal) submitted by her to the committee and decision on formulation of the standard on the above subject to be taken during the next committee meeting. MS to send a commenting template for providing the changes to be made in ISO 2631. | Detailed Proposal not received yet.  Commenting template attached herein.  [IS standards comments.docx](https://docs.google.com/document/d/159PCKZo3BCLNjxOPAyIvRsncqHrNC6jq/edit?usp=sharing&ouid=116383954287804013918&rtpof=true&sd=true), [ISO\_commenting\_template (2).doc](https://docs.google.com/document/d/1PlVx7rtTOTxHLAx91D8kswRC8pOr5sgV/edit?usp=sharing&ouid=116383954287804013918&rtpof=true&sd=true)  *Committee may discuss and decide.* |
|  |  |  |  |

**ITEM 3 STANDARDS PUBLISHED AND NOTIFIED (PROGRAM OF WORK)**

**3.1** BIS Management is very much concerned about revision of Standards based on latest technology and their utilisation by concerned stakeholders. It has been observed that many standards have been published long back and there is no change in the specification through amendment/revision. It is not known whether these standards are being used by anyone. Therefore technical committee is requested to examine whether these standards may be withdrawn if they cover either obsolete technology or are not used in the country. Accordingly, list of the standard published by Mechanical Vibration and Shock Condition Monitoring Sectional Committee, MED 28 can be accessed with the following link:

[**Programme of work (bis.gov.in)**](https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/pow_details)

[POW\_MED 28.pdf](https://drive.google.com/file/d/1ZVgfnCeQVsw66pjeapuGN_Z08rjOrXwG/view?usp=sharing)

*The Committee may kindly* ***note****.*

**3.2** **Standards under development or publication:**

*Currently no document is under publication.*

|  | *Doc in Development* | | | | |
| --- | --- | --- | --- | --- | --- |
| **Sl No** | **Document Number** | **Document Title** | **Document Type** | **Document Stage** | **Remarks** |
| 1 | MED/28/27121  IS/ISO 20816 : Part 2: 2017 | Mechanical Vibration - Measurement and Evaluation of Machine Vibration Part 2 Land-Based Gas Turbines, Steam Turbines and Generators in Excess of 40 MW, with Fluid-Film Bearings and Rated Speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min ( First Revision ) Amendment - 1 | Amendment | WC-Draft | *See* Item 2.1 S. No. 12 |

*The Committee may kindly* ***note****.*

**ITEM 4 IMPLEMENTATION OF STANDARDS (STATUS OF STANDARD UNDER BIS CERTIFICATION)**

No Standard is under certification.

*The Committee may please* ***note****.*

**ITEM 5 COMPOSITIONS OF THE COMMITTEE AND SUBCOMMITTEE**

**5.1** The following directions have been received from the Competent Authority of the Bureau for reviewing the composition of the Sectional Committee:

1. Major Government purchasing organizations like RDSO, CPWD, GeM, Defence etc are to be given representation in the committees wherever applicable.
2. Examine the justification and need for continuation of a member in an individual capacity who is continuing for more than six years in a sectional committee.
3. New members are to be co-opted who are expected to contribute in emerging new technology.
4. In case representative of the concerned organization is not attending the meeting regularly or not continuing even by correspondences, the organization may be informed for substituting their member.
5. Members who are represented in individual capacity, the continuation of their membership is to be considered on the basis of their past attendance and contribution.
6. Efforts should be made to include representative of different product segments as per the scope of the committee.

*The Committee may kindly* ***note****.*

**5.2** As per directive of the Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India, which is the Controlling Ministry of the Bureau that the composition of Sectional Committees be reviewed to replace the persons who are continuing for longer periods, to co-opt the members/organizations which are capable of contributing in emerging new technologies and new areas of work and strength of the manufacturers should be restricted to 1/3 of the total strength of the Technical Committees.

*The Committee may kindly* ***note****.*

**5.3** The present composition of Mechanical Vibration and Shock Condition Monitoring Sectional Committee, MED 28 is given at **Annex 1 (Page no. 54)***.* The list shows the attendance of the members in the last two consecutive meetings. As directed by CA, members who have not attended **2 consecutive meetings** of MED 28 are to be terminated from the committee.

**5.4 Request for membership in this Committee**

**5.4.1** No new nomination received

*The Committee noted the information.*

**5.4.2** The following revised Nomination received in the Committee.

**1. BARC**

1. *Shri Jitender Kumar Pandey (Principal Member)*

[*Nomination\_Jitender Kumar Pandey\_BARC.pdf*](https://drive.google.com/file/d/1uqhuNTIQWPzqXme3oZi9GHcCQyusNFZm/view?usp=sharing)

**2. ONGC**

1. Shri Harish Bhambhani (Principal Member)

b) Shri Niraj Kumar(Alternate Member)

[*ONGC\_Nomination Proforma (MED 28).docx*](https://docs.google.com/document/d/1m_iJy5M5_w6hPDmpiz4G9vOoKssMlkvc/edit?usp=sharing&ouid=116383954287804013918&rtpof=true&sd=true)

*The Committee may approve the revised nominations.*

**ITEM 6 COMMENTS ON PUBLISHED INDIAN STANDARD**

**6.1** No comments received on published indian standard.

*The Committee may kindly* ***note****.*

**6.2** As per BIS Guidance, It is mandatory for comments for P-Draft.

[[MED 28] Mandatory commenting on P-drafts.pdf](https://drive.google.com/file/d/1LNMA-XkIsqK7GVkaThf5pQfb7GyfZkVz/view?usp=drive_link)

[DG\_Letter (1).pdf](https://drive.google.com/file/d/1IS7BYpW_BbKEHMw0AVbKX0CIPHDbeKcH/view?usp=drive_link)

[P-Draft commenting guide for BIS members.pptx](https://docs.google.com/presentation/d/1CLXwdaGKxOWSDQ1oBykhtWmztFN0CVZC/edit?usp=drive_link&ouid=116383954287804013918&rtpof=true&sd=true)

*The Committee may please* ***note****.*

**Item 7 REVIEW AND STATUS OF PUBLISHED INDIAN STANDARD**

**7.1** The following Indian Standards are due for review in 2024-25.

| **S.No.** | **IS Number** | **IS Title** | **Last Reaffirmation Year** | **Due Date** | **Remarks** |
| --- | --- | --- | --- | --- | --- |
| 1 | IS 13276 (Part 1) : 2000/ISO 2631-1:1997 | Mechanical vibration and shock - Evaluation of human exposure to whole body vibration: Part 1 general requirements (First Revision) | 2020 | January, 2025 | Amd 1 has been published.  [13276\_1A1.pdf](https://drive.google.com/file/d/1-BfeWkn6IHqA0SRTESzKvHM6F4sdLSD6/view?usp=drive_link)  *See Item 2.1 S. No. 6.* |
| 2 | IS 14732 : 2000/ISO 6897 : 1984 | Guidelines for the evaluation of the response of occupants of fixed structures, especially buildings and off - Shore structures, to glow - Frequency horizontal motion (0.063 To 1 Hz) | 2020 | January, 2025 | Committee may approve the document for reaffirmation.  *See Item 2.1 S. No. 6.* |
| 3 | IS/ISO 14963 : 2003 | Mechanical vibration and shock - Guidelines for dynamic tests and investigations on bridges and viaducts | 2020 | January, 2025 | Committee may approve the document for reaffirmation.  *See Item 2.1 S. No. 7.* |
| 4 | IS/ISO 21940-31 : 2013 | Mechanical vibration - Rotor balancing: Part 31 susceptibility and sensitivity of machines to unbalance | 2019 | April, 2024 | Committee may approve the document for reaffirmation.  *See Item 2.1 S. No. 8.* |
| 5 | IS/ISO 21940-32 : 2012 | Mechanical vibration - Rotor balancing: Part 32 shaft and fitment key convention | 2019 | April, 2024 | Committee may approve the document for reaffirmation.  *See Item 2.1 S. No. 8.* |
| 6 | IS/ISO 21940-14 : 2012 | Mechanical vibration - Rotor balancing: Part 14 procedures for assessing balance errors | 2019 | April, 2024 | Committee may approve the document for amendment and reaffirmation.  *See Item 2.1 S. No. 9.* |
| 7 | IS/ISO 21940-23 : 2012 | Mechanical vibration - Rotor balancing: Part 23 enclosures and other protective measures for the measuring station of balancing machines | 2019 | April, 2024 | Committee may approve the document for reaffirmation.  *See Item 2.1 S. No. 9.* |
| 8 | IS/ISO 18431-1 : 2005 | Mechanical vibration and shock - Signal processing: Part 1 general introduction | 2019 | April, 2024 | Committee may approve the document for amendment and reaffirmation.  *See Item 2.1 S. No. 5* and *10.* |
| 9 | IS/ISO 21940-13 : 2012 | Mechanical vibration - Rotor balancing: Part 13 criteria and safeguards for in - Situ balancing for medium and large rotors | 2019 | April, 2024 | Committee approved the document for reaffirmation during previous meeting of the committee. |

*The Committee may kindly* ***note*** *and* ***decide****.*

**7.2** Following adopted Indian Standard status with current ISO Standard.

| **SI. No.** | **IS No.** | **TITLE** | **Eqv.** | **ISO Status** |
| --- | --- | --- | --- | --- |
| 1. | IS/ISO 10055 : 1996 | Mechanical vibration - Vibration testing requirements for shipboard equipment and machinery components | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 2. | IS/ISO 10326-1 : 2016 | Mechanical vibration - Laboratory method for evaluating vehicle seat vibration: Part 1 basic requirements | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 3. | IS/ISO 10815 : 2016  ISO 10815 : 2016 | Mechanical vibration - Measurement of vibration generated internally in railway tunnels by the passage of trains | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 5. | IS 11726 : 2017  ISO 2954 : 2012 | Mechanical vibration of rotating and reciprocating machinery - Requirements for instruments for measuring vibration severity (First Revision) | Identical under dual numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 6. | IS 13276 (Part 1) : 2000  ISO 2631-1 | Mechanical vibration and shock - Evaluation of human exposure to whole body vibration: Part 1 general requirements (First Revision) | Identical under dual numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current.    This standard has one amendment which has been published.  *See Item 2.1 S. No. 6.* |
| 7. | IS 13281 : 1999  ISO 5805 | Mechanical vibration and shock affecting man - Vocabulary (First Revision) | Identical under dual numbering | This standard was last reviewed and confirmed in 2019. Therefore this ISO version remains current. |
| 8. | IS/ISO 13373-1 : 2002 | Condition monitoring and diagnostics of machines - Vibration condition monitoring: Part 1 general procedures | Identical under single numbering | This standard was last reviewed and confirmed in 2018. Therefore this ISO version remains current. |
| 9. | IS/ISO 13373-2 : 2016  ISO 13373-2 : 2016 | Condition Monitoring and Diagnostics of Machines - Vibration Condition Monitoring Part 2 Processing Analysis and Presentation of Vibration Data (First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 10. | IS 14732 : 2000  ISO 6897 : 1984 | Guidelines for the evaluation of the response of occupants of fixed structures, especially buildings and off - Shore structures, to glow - Frequency horizontal motion (0.063 To 1 Hz) | Identical under dual numbering | This standard was last reviewed and confirmed in 2020. Therefore this ISO version remains current. |
| 11. | IS 14736 (Part 1) : 2017  ISO 7626-1 : 2011 | Mechanical vibration and shock - Experimental determination of mechanical mobility: Part 1 basic terms and definitions, and transducer specifications (First Revision) | Identical under dual numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 12. | IS 14736 (Part 2) : 2018  ISO 7626-2 : 2015 | Mechanical Vibration and Shock - Experimental Determination of Mechanical Mobility Part 2 Measurements Using Single - Point Translation Excitation with an Attached Vibration Exciter ( First Revision) | Identical under dual numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 13. | IS 14817 (Part 3) : 2017  ISO 10816-3 : 2009 | Mechanical vibration - Evaluation of machine vibration by measurements on non - Rotating parts: Part 3 industrial machines with nominal power above 15 kW and nominal speeds between 120 r/min and 15 000 r/min when measured in situ (First Revision) | Identical under dual numbering | This standard was withdrawn and revised by ISO 20816-3:2022.  *See Item 2.1 S. No. 2.* |
| 14. | IS 14817 (Part 6) : 2004  ISO 10816-6 | Mechanical vibration - Evaluation of machine vibration by measurements on non - Rotating parts: Part 6 reciprocating machines with power rating above 100 kW | Identical under dual numbering | This standard was last reviewed and confirmed in 2020. Therefore this ISO version remains current.    This standard has one amendment which is under publication.  *See at Item 2.1 S. No. 3.* |
| 15. | IS 14882 : 2000  ISO 10112 : 1991 | Damping materials - Graphical presentation of the complex modulus | Identical under dual numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 16. | IS 14883 : 2022  ISO 5348: 2021 | Mechanical Vibration and Shock Mechanical Mounting of Accelerometers First Revision | Identical under dual numbering | This ISO standard remains current. |
| 17. | IS 14907 : 2001  ISO 10227 | Human/human surrogate impact (Single Shock) testing and evaluation - Guidance on technical aspects | Identical under dual numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 18. | IS 14910 : 2001  ISO 8727 | Mechanical vibration and shock - Human exposure - Biodynamics coordinate systems | Identical under dual numbering | This standard was last reviewed and confirmed in 2019. Therefore this ISO version remains current.  This standard has one amendment which is under publication.  *See at Item 2.1 S. No. 4.* |
| 19. | IS 14916 : 2016  ISO 10068 : 2012 | Mechanical Vibration and Shock â€” Mechanical Impedance of the Human Hand-Arm System at the Driving Point ( First Revision ) | Identical under dual numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 20. | IS/ISO 14963 : 2003 | Mechanical vibration and shock - Guidelines for dynamic tests and investigations on bridges and viaducts | Identical under single numbering | This standard was last reviewed and confirmed in 2020. Therefore this ISO version remains current. |
| 21. | IS 14979 : 2001  ISO 9996 | Mechanical vibration and shocks - Disturbance to human activity and performance - Classification | Identical under dual numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 22. | IS 15593 (Part 1) : 2005  ISO/TS 10811-1 | Mechanical vibration and shock - Vibration and shock in buildings with sensitive equipment: Part 1 measurement and evaluation | Identical under dual numbering | This standard was last reviewed and confirmed in 2024. Therefore this ISO version remains current. |
| 23. | IS 15593 (Part 2) : 2005  ISO/TS 10811-2 | Mechanical vibration and shock - Vibration and shock in buildings with sensitive equipment: Part 2 classification | Identical under dual numbering | This standard was last reviewed and confirmed in 2024. Therefore this ISO version remains current. |
|  |
| 24. | IS 17918 : 2023  ISO 2017-1: 2005 | Mechanical vibration and shock - Resilient Mounting Systems -Technical information to be exchanged for the application of isolation systems | Not Equivalent | This standard was last reviewed and confirmed in 2019. Therefore this ISO version remains current. |
| 25. | IS/ISO 18431-1 : 2005  ISO 18431-1 : 2005 | Mechanical vibration and shock - Signal processing: Part 1 general introduction | Identical under single numbering | This standard was last reviewed and confirmed in 2019. Therefore this ISO version remains current.  This standard has one amendment which is under publication.  *See at Item 2.1 S. No. 5 and 10.* |
| 26. | IS/ISO 2028 :-2 : 2008  ISO 20283-2 : 2008 | Mechanical vibration - Measurement of vibration on ships: Part 2 measurement of structural vibration | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 27. | IS/ISO 20283-5 : 2016  ISO 20283-5:2016 | Mechanical vibration Measurement of vibration on ships Part 5: Guidelines for measurement evaluation and reporting of vibration with regard to habitability on passenger and merchant ships Adoption of ISO 20283-5 : 2016 | Identical under dual numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 28. | IS/ISO 2041 : 2018  ISO 2041 : 2018 | Mechanical Vibration, Shock and Condition Monitoring â€” Vocabulary ( First Revision ) | Identical under single numbering | This standard was last reviewed and confirmed in 2024. Therefore this ISO version remains current. |
| 29. | IS/ISO 20816-1 : 2016  ISO 20816-1 : 2016 | Mechanical vibration - Measurement and evaluation of machine vibration: Part 1 general guidelines | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 30. | IS/ISO 20816-2 : 2017  ISO 20816-2 : 2017 | Mechanical Vibration — Measurement and Evaluation of Machine Vibration Part 2 Land-Based Gas Turbines, Steam Turbines and Generators in Excess of 40 MW, with Fluid-Film Bearings and Rated Speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min ( First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current.  This standard has one amendment.  [ISO 20816-2;2017\_Amd 1;2024 ed.1 - id.87294 Publication PDF (en).pdf](https://drive.google.com/file/d/1M03X_vebtqnUs60XdgP0TqXUe33WTD9W/view?usp=sharing)  *The document MED 28 (27121) has been wide circulated on 18 December 2024. The last date of comments is 17 January 2025.*  *See Sl No. 12 Item No. 2.1*  *Committee may please note the information.* |
| 31. | IS/ISO 20816-4 : 2018  ISO 20816-4 : 2018 | Mechanical Vibration - Measurement and Evaluation of Machine Vibration Part 4 Gas Turbines in Excess of 3 MW, with Fluid-Film Bearings (First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 32. | IS/ISO 20816-5 : 2018  ISO 20816-5 : 2018 | Mechanical Vibration Ã¢â‚¬â€ Measurement and Evaluation of Machine Vibration Part 5 Machine Sets in Hydraulic Power Generating and Pump-Storage Plants ( First Revision ) | Identical under single numbering | This standard was last reviewed and confirmed in 2024. Therefore this ISO version remains current. |
|  |
| 33. | IS/ISO 21289 : 2008  ISO 21289 : 2008 | Mechanical vibration and shock - Parameters to be specified for the acquisition of vibration data | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 34. | IS/ISO 21940-2 : 2017  ISO 21940-2 : 2017 | Mechanical Vibration Rotor Balancing Part 2 Vocabulary ( First Revision ) | Identical under single numbering | This standard was last reviewed and confirmed in 2022. Therefore this ISO version remains current. |
|  |
| 35. | IS/ISO 21940-11 : 2016  ISO 21940-11 : 2016 | Mechanical vibration - Rotor balancing: Part 11 procedures and tolerances for rotors with rigid behaviour | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current.  Amd 1 has been published.  [IO21940\_11A1.pdf](https://drive.google.com/file/d/18dbIlIEtNmF_Rwrpgfut08_WeRtq7c7R/view?usp=drive_link) |
| 36. | IS/ISO 21940-12 : 2016  ISO 21940-12 : 2006 | Mechanical vibration - Rotor balancing: Part 12 procedures and tolerances for rotors with flexible behaviour | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 37. | IS/ISO 21940-13 : 2012  ISO 21940-13 : 2012 | Mechanical vibration - Rotor balancing: Part 13 criteria and safeguards for in - Situ balancing for medium and large rotors | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 38. | IS/ISO 21940-14 : 2012  ISO 21940-14 : 2012 | Mechanical vibration - Rotor balancing: Part 14 procedures for assessing balance errors | Identical under single numbering | This standard was last reviewed and confirmed in 2017. Therefore this ISO version remains current.  This standard has one amendment which has been published.  *See at Item 2.1 S. No. 9.* |
| 39. | IS/ISO 21940-21 : 2022  ISO 21940-21 : 2022 | Mechanical vibration - Rotor balancing: Part 21 description and evaluation of balancing machines (First Revision) | Identical under single numbering | ISO version remains current. |
| 40. | IS/ISO 21940-23 : 2012  ISO 21940-23 : 2012 | Mechanical vibration - Rotor balancing: Part 23 enclosures and other protective measures for the measuring station of balancing machines | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 41. | IS/ISO 21940-31 : 2013  ISO 21940-31 : 2013 | Mechanical vibration - Rotor balancing: Part 31 susceptibility and sensitivity of machines to unbalance | Identical under single numbering | This standard was last reviewed and confirmed in 2019. Therefore this ISO version remains current. |
| 42. | IS/ISO 21940-32 : 2012  ISO 21940-32 : 2012 | Mechanical vibration - Rotor balancing: Part 32 shaft and fitment key convention | Identical under single numbering | This standard was last reviewed and confirmed in 2023. Therefore this ISO version remains current. |
| 43. | IS/ISO 2631-2 : 2003 | Mechanical vibration and shock - Evaluation of human exposure to whole body vibration: Part 2 vibration in buildings (1 Hz To 80 Hz) | Identical under single numbering | This standard was last reviewed and confirmed in 2018. Therefore this ISO version remains current. |
| 44. | IS/ISO 4866 : 2010  ISO 4866 | Mechanical vibration and shock - Vibration of fixed structures - Guidelines for the measurement of vibrations and evaluation of their effects on structures | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 45. | IS/ISO 5344 : 2004 | Electrodynamic vibration generating systems - Performance characteristics (First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current.  Amd 1 has been published.  [IO5344A1.pdf](https://drive.google.com/file/d/1wvEeubVqoY-CyLohXQIU0a35kuSXJDnU/view?usp=drive_link) |
| 46. | IS/ISO 5349-1 : 2001 | Mechanical vibration - Measurement and evaluation of human exposure to hand transmitted vibration: Part 1 general requirements (First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 47. | IS/ISO 5349-2 : 2001 | Mechanical vibration - Measurement and evaluation of human exposure to handtransmitted vibration: Part 2 practical guidance for measurement at the workplace (First Revision) | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current.  Amd 1 has been published.  [IO5349\_2A1.pdf](https://drive.google.com/file/d/1LdG3a2A4gzCfb2So-YhzySF4Kn2PmYp2/view?usp=drive_link) |
| 48. | IS/ISO 5982 : 2019  ISO 5982 : 2019 | Mechanical Vibration and Shock Range of Idealized Values to Characterize Human Biodynamic Response Under Whole-Body Vibration ( First Revision ) | Identical under single numbering | This publication was last reviewed and confirmed in 2024. Therefore this version remains current. |
| 49. | IS/ISO 6070 : 2019  ISO 6070 : 2019 | Auxiliary Tables for Vibration Generators Methods of Describing Equipment Characteristics ( First Revision ) | Identical under single numbering | This version of the standard remains current. |
| 50. | IS/ISO 7626-5 : 2019  ISO 7626-5 : 2019 | Mechanical Vibration and Shock Experimental Determination of Mechanical Mobility Part 5 Measurements Using Impact Excitation with an Exciter Which is Not Attached to The Structure ( First Revision ) | Identical under single numbering | This version of the standard remains current. |
| 51. | IS/ISO 7919-3 : 2009  ISO 7919-3 | Mechanical vibration - Evaluation of machine vibration by measurements on rotating shafts: Part 3 coupled industrial machines | Identical under single numbering | This standard has been revised by ISO 20816-3:2022.  *See Item 2.1 S. No. 1.* |
| 52. | IS/ISO 8041-1 : 2017  ISO 8041 : 2017 | Human Response to Vibration Measuring Instrumentation Part 1 General Purpose Vibration Meters ( First Revision ) | Identical under single numbering | This standard was last reviewed and confirmed in 2022. Therefore this ISO version remains current. |
| 53. | IS/ISO 8042 : 1988 | Shock and vibration measurements - Characteristics to be specified for seismic pick - Ups | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 54. | IS/ISO 8608 : 2016  ISO 8608 : 2016 | Mechanical vibration - Road surface profiles - Reporting of measured data | Identical under single numbering | This standard was last reviewed and confirmed in 2021. Therefore this ISO version remains current. |
| 55. | IS/ISO 8626 : 1989 | Servo - Hydraulic test equipment for generating vibration method of describing characteristics | Identical under single numbering | This standard was last reviewed and confirmed in 2018. Therefore this ISO version remains current.  Amd 1 has been published.  [IO8626A1.pdf](https://drive.google.com/file/d/1_ndV4L1ORHwqvNHQoF9VHIvKSs0Z7UYs/view?usp=drive_link) |

*The Committee may note the information.*

**Item 8 SELECTIONS OF SUBJECTS**

**8.1** As per the policy and guidelines, before any new subject is taken up for formulation of National Standard the following issues are to be examined by BIS.

1. Whether the subject is financed by the proposer;
2. Sale ability of the standard;
3. Standards shall be user friendly; and
4. Social needs with regards to safety, health and environment.

Only after assessing the above aspects it will be possible for BIS to consider the formulation of Indian standard. The proposal should essentially be taken in the prescribed Performa, as preliminary work item as given in **Annex 2**. When members propose in the Technical Committee (TC) meeting, they have to fill-in the Performa beforehand which is then be considered by the TC.

*The Committee may note the information.*

**Item 9 INTERNATIONAL ACTIVITIES**

**9.1** BIS, as a founding member of International Organization for Standardization (ISO), actively participates in standardization activities at international level including participation in its policy making bodies like Development Committee (DEVCO), Committee on Conformation Assessment (CASCO) and Committee on Consumer Policy (COPALCO). In the current global economic scenario, standardization has become necessary as emerging of concept like Technical Barriers to Trade Agreement(TBT), issued by WTO, which tries to ensure that regulations, standards, conformity assessment procedures do not create unnecessary obstacles to trade internationally. Over **203** ISO technical committees are engaged in the formulation of international standards with the consensus of all member countries.

*The Committee may note the information.*

**9.2** India is ‘P’ member of ISO/TC 108 – Mechanical vibration, shock and condition monitoring**.** Being P member, it is obligatory for India to vote on all the documents. The comments from the members are compiled and sent to the Chairman for approval for voting. All the members and the Chairman are requested to take prompt action on the circulated documents for voting as voting is time bound.

**Effective participation in ISO activities is crucial for our nation as we have a significant stake in international trade and ISO standards. Therefore, it is essential that the committee participates effectively and thoroughly examines ISO ballots with respect to their relevance. If the ballot is relevant to us, the committee should nominate experts to represent our nation in ISO meetings. This will help to ensure that our national interests are well-represented and safeguarded in the international arena. Currently, following ballots (where India is ‘P’ member) are under circulation:**

| **Sl No.** | **Type** | **Committee / Working Group** | **Reference** | **End date** | **Remarks** |
| --- | --- | --- | --- | --- | --- |
| 1 | SR | ISO/TC 108 | ISO 7626-5:2019 (Ed 2)  Mechanical vibration and shock — Experimental determination of mechanical mobility — Part 5: Measurements using impact excitation with an exciter which is not attached to the structure | 04/03/2025 | Adopted as  IS/ISO 7626-5 : 2019 |
| 2 | SR | ISO/TC 108 | ISO 16063-34:2019  Methods for the calibration of vibration and shock transducers — Part 34: Testing of sensitivity at fixed temperatures | 04/03/2025 |  |
| 3 | CD | ISO/TC 108/SC 2 | ISO/CD 21940-12  Mechanical vibration — Rotor balancing — Part 12: Procedures and tolerances for rotors with flexible behaviour | 16/01/2025 | Adopted as IS/ISO 21940-12 : 2016 |
| 4 | DIS | ISO/TC 108/SC 4 | ISO/DIS 5349-3  Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 3: Isolated and repeated shocks using the frequency range of ISO 5349-1 | 04/03/2025 |  |
| 5 | DIS | ISO/TC 108/SC 5 | ISO/DIS 13381-1 (Ed 3)  Condition monitoring and diagnostics of machines — Prognostics — Part 1: General guidelines | 01/01/2025 |  |
| 6 | SR | ISO/TC 108/SC 5 | ISO 14830-1:2019  Condition monitoring and diagnostics of machine systems — Tribology-based monitoring and diagnostics — Part 1: General requirements and guidelines | 04/03/2025 |  |
| 7 | DIS | ISO/TC 108/SC 5 | ISO/DIS 13379-1 (Ed 2)  Condition monitoring and diagnostics of machines — Data interpretation and diagnostics techniques — Part 1: General guidelines | 06/02/2025 |  |
| 8 | SR | ISO/TC 108/SC 6 | ISO 6070:2019 (Ed 2)  Auxiliary tables for vibration generators — Methods of describing equipment characteristics | 04/03/2025 | Adopted as IS/ISO 6070 : 2019 |

*The Committee may note the information.*

**9.3** During the last meeting the committee had requested BIS to provide information of the vote which had been cast in the ballots and who had provided their comments on that ballot. The list has been attached below.

| **Sl No.** | **Type** | **Committee / Working Group** | **Reference** | **Start date** | **End date** | **Last date of comments** | **Comments received** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | SR | ISO/TC 108 | ISO 16063-16:2014 (vers 2) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 2 | SR | ISO/TC 108 | ISO 16063-21:2003 (vers 4) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 3 | SR | ISO/TC 108 | ISO 16063-22:2005 (vers 4) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 4 | SR | ISO/TC 108 | ISO 18431-3:2014 (vers 2) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 5 | FDIS | ISO/TC 108 | ISO 16063-21:2003/FDAmd 2 | 03/09/2024 | 29/10/2024 | 18/10/2024 | Dr A Rama Rao, In Personal Capacity |
| 6 | DIS | ISO/TC 108 | ISO 16063-1:1998/DAmd 2 | 02/09/2024 | 25/11/2024 | 15/11/2024 | - |
| 7 | DIS | ISO/TC 108 | ISO 16063-31:2009/DAmd 1 | 03/09/2024 | 26/11/2024 | 15/11/2024 | Dr A Rama Rao, In Personal Capacity |
| 8 | DTS | ISO/TC 108/SC 2 | ISO/DTS 14837-34 | 22/08/2024 | 17/10/2024 | 03/10/2024 | Shri Nagesh V. Karanth, In Personal  Capacity |
| 9 | FDIS | ISO/TC 108/SC 4 | ISO/FDIS 10326-3 | 14/08/2024 | 09/10/2024 | 03/10/2024 | 1. Shri Nagesh V. Karanth, In Personal Capacity  2. Dr. V. Bhaskarsarma from Sampoorna Rotor Dynamics Consultancy, Mechanical Engineering Department, Bengaluru |
| 10 | SR | ISO/TC 108/SC 5 | ISO 13374-1:2003 (vers 4) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 11 | SR | ISO/TC 108/SC 5 | ISO 18436-4:2014 (Ed 2, vers 2) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 12 | SR | ISO/TC 108/SC 5 | ISO 18436-7:2014 (Ed 2, vers 2) | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |
| 13 | CIB | ISO/TC 108/SC 5 | Appointment of WG Convenor for ISO/TC108/SC5/WG-10 | 30/08/2024 | 15/10/2024 | 05/10/2024 | Dr A Rama Rao, In Personal Capacity |
| 14 | CD | ISO/TC 108/SC 5 | ISO/CD 18436-9 | 30/08/2024 | 25/10/2024 | 15/10/2024 | 1. Dr A Rama Rao, In Personal Capacity  2. Dr. Soumendu jana from National Aerospace Laboratories, Bengaluru  3. Shri Nagesh V. Karanth, In Personal Capacity |
| 15 | FDIS | ISO/TC 108/SC 5 | ISO/FDIS 18436-3 (Ed 3) | 14/10/2024 | 09/12/2024 | 29/11/2024 | - |
| 16 | CD | ISO/TC 108/SC 5 | ISO/CD 18436-8 | 19/10/2024 | 14/12/2024 | 03/12/2024 | Dr A Rama Rao, In Personal Capacity |
| 17 | SR | ISO/TC 108/SC 6 | ISO 10813-2:2019 | 15/07/2024 | 02/12/2024 | 18/11/2024 | - |

*The Committee may note the information.*

**9.4** India has established itself as a significant manufacturing hub and has a considerable stake in international trade. To ensure our active involvement in trade-related norms set by different countries, it is essential for us to participate in the standardisation process of ISO and provide input for the betterment of our industries. Standardisation is the key to influence these norms, and a **closer examination of new work item proposals** received from ISO is necessary for us to standardise products at the international level. This activity will benefit Indian manufacturers at all levels to keep up with or enter into international level trade, ultimately improving their competitiveness in the global market.

No new NWIP circulated by ISO.

*The Committee may please* ***note****.*

**9.4** List of International Standards formulated by ISO/TC 108 & its SC’s can be accessed with following links respectively:

<https://www.iso.org/committee/51402.html>

*The Committee may please* ***note****.*

**9.5** ISO/TC 108 ‘Mechanical vibration, shock and condition monitoring’ is the committee at the ISO level which deals with Standardization in the field of mechanical vibration and shock and the effects of vibration and shock on humans, machines, vehicles (air, sea, land and rail) and stationary structures, and of the condition monitoring of machines and structures, using multidisciplinary approaches. ISO/TC 108 and it’s various SC/WGs are planning to have their meetings via physical/Virtual mode. Brief details of the same is given below:

| **Sl. No.** | **Date** | **Month** | **Location** | **TC/SC/WG** | **Mode of Meeting** |
| --- | --- | --- | --- | --- | --- |
| 1 | 25-26 | March 2025 | Virtual | ISO/TC 108/SC 6 | Virtually |
| 2. | 7-11 | April 2025 | London (United Kingdom) | ISO/TC 108/SC 5 | Physically |

As India is currently having P-membership in the above said ISO committee and MED 28 is the corresponding national mirror committee. So, it is required that we participate in the plenary meeting and it’s SC meeting and represent the India’s views. The participation in the plenary meeting will help us to proactively work with ISO and influence India’s position in the International Standardization process. This will also help us to know recent developments in the International Standards.

*So, I would request the committee members to go through the scope and list of standards published by this committee and provide their nomination to attend the above mentioned meetings.*

**9.6 Standards developed by ISO/TC 108 and it’s Sub Committees**

|  | **[Standards by ISO/TC 108 Mechanical vibration, shock and condition monitoring] Standard and/or project under the direct responsibility of ISO/TC 108 Secretariat (55)** | |  |
| --- | --- | --- | --- |
| **Sl No.** | **ISO No.** | **ISO Title** | **Adopted by BIS as** |
|  | ISO 2017-1:2005 | Mechanical vibration and shock — Resilient mounting systems — Part 1: Technical information to be exchanged for the application of isolation systems | IS 17918 : 2023 (Not Equivalent ) |
|  | ISO 2017-2:2007 | Mechanical vibration and shock — Resilient mounting systems — Part 2: Technical information to be exchanged for the application of vibration isolation associated with railway systems |  |
|  | ISO 2017-3:2015 | Mechanical vibration and shock — Resilient mounting systems — Part 3: Technical information to be exchanged for application of vibration isolation to new buildings |  |
|  | ISO 2041:2018 | Mechanical vibration, shock and condition monitoring — Vocabulary | IS/ISO 2041 : 2018 |
|  | ISO 2954:2012 | Mechanical vibration of rotating and reciprocating machinery — Requirements for instruments for measuring vibration severity | IS 11726 : 2017  ISO 2954 : 2012 |
|  | ISO 5347-8:1993 | Methods for the calibration of vibration and shock pick-ups — Part 8: Primary calibration by dual centrifuge |  |
|  | ISO 5347-12:1993 | Methods for the calibration of vibration and shock pick-ups — Part 12: Testing of transverse shock sensitivity |  |
|  | ISO 5347-13:1993 | Methods for the calibration of vibration and shock pick-ups — Part 13: Testing of base strain sensitivity |  |
|  | ISO 5347-15:1993 | Methods for the calibration of vibration and shock pick-ups — Part 15: Testing of acoustic sensitivity |  |
|  | ISO 5347-16:1993 | Methods for the calibration of vibration and shock pick-ups — Part 16: Testing of mounting torque sensitivity |  |
|  | ISO 5347-18:1993 | Methods for the calibration of vibration and shock pick-ups — Part 18: Testing of transient temperature sensitivity |  |
|  | ISO 5347-22:1997 | Methods for the calibration of vibration and shock pick-ups — Part 22: Accelerometer resonance testing — General methods |  |
|  | ISO 5348:2021 | Mechanical vibration and shock — Mechanical mounting of accelerometers | IS 14883 : 2022  ISO 5348: 2021 |
|  | ISO 7626-1:2011 | Mechanical vibration and shock — Experimental determination of mechanical mobility — Part 1: Basic terms and definitions, and transducer specifications | IS 14736 (Part 1) : 2017  ISO 7626-1 : 2011 |
|  | ISO 7626-2:2015 | Mechanical vibration and shock — Experimental determination of mechanical mobility — Part 2: Measurements using single-point translation excitation with an attached vibration exciter | IS 14736 (Part 2) : 2018  ISO 7626-2 : 2015 |
|  | ISO 7626-5:2019 | Mechanical vibration and shock — Experimental determination of mechanical mobility — Part 5: Measurements using impact excitation with an exciter which is not attached to the structure | IS/ISO 7626-5 : 2019 |
|  | ISO 8041-1:2017 | Human response to vibration — Measuring instrumentation — Part 1: General purpose vibration meters |  |
|  | ISO 8041-2:2021 | Human response to vibration — Measuring instrumentation — Part 2: Personal vibration exposure meters |  |
|  | ISO 8042:1988 | Shock and vibration measurements — Characteristics to be specified for seismic pick-ups |  |
|  | ISO 9688:1990 | Mechanical vibration and shock — Analytical methods of assessing shock resistance of mechanical systems — Information exchange between suppliers and users of analyses |  |
|  | ISO 10112:1991 | Damping materials — Graphical presentation of the complex modulus | IS 14882 : 2000/  1SO 10112:1991 |
|  | ISO 10817-1:1998 | Rotating shaft vibration measuring systems — Part 1: Relative and absolute sensing of radial vibration |  |
|  | ISO 16063-1:1998 | Methods for the calibration of vibration and shock transducers — Part 1: Basic concepts |  |
|  | ISO 16063-11:1999 | Methods for the calibration of vibration and shock transducers — Part 11: Primary vibration calibration by laser interferometry |  |
|  | ISO 16063-12:2002 | Methods for the calibration of vibration and shock transducers — Part 12: Primary vibration calibration by the reciprocity method |  |
|  | ISO 16063-13:2001 | Methods for the calibration of vibration and shock transducers — Part 13: Primary shock calibration using laser interferometry |  |
|  | ISO 16063-15:2006 | Methods for the calibration of vibration and shock transducers — Part 15: Primary angular vibration calibration by laser interferometry |  |
|  | ISO 16063-16:2014 | Methods for the calibration of vibration and shock transducers — Part 16: Calibration by Earth's gravitation |  |
|  | ISO 16063-17:2016 | Methods for the calibration of vibration and shock transducers — Part 17: Primary calibration by centrifuge |  |
|  | ISO 16063-21:2003 | Methods for the calibration of vibration and shock transducers — Part 21: Vibration calibration by comparison to a reference transducer |  |
|  | ISO 16063-22:2005 | Methods for the calibration of vibration and shock transducers — Part 22: Shock calibration by comparison to a reference transducer |  |
|  | ISO 16063-31:2009 | Methods for the calibration of vibration and shock transducers — Part 31: Testing of transverse vibration sensitivity |  |
|  | ISO 16063-32:2016 | Methods for the calibration of vibration and shock transducers — Part 32: Resonance testing — Testing the frequency and the phase response of accelerometers by means of shock excitation |  |
|  | ISO 16063-33:2017 | Methods for the calibration of vibration and shock transducers — Part 33: Testing of magnetic field sensitivity |  |
|  | ISO 16063-34:2019 | Methods for the calibration of vibration and shock transducers — Part 34: Testing of sensitivity at fixed temperatures |  |
|  | ISO 16063-41:2011 | Methods for the calibration of vibration and shock transducers — Part 41: Calibration of laser vibrometers |  |
|  | ISO 16063-42:2014 | Methods for the calibration of vibration and shock transducers — Part 42: Calibration of seismometers with high accuracy using acceleration of gravity |  |
|  | ISO 16063-43:2015 | Methods for the calibration of vibration and shock transducers — Part 43: Calibration of accelerometers by model-based parameter identification |  |
|  | ISO 16063-44:2018 | Methods for the calibration of vibration and shock transducers — Part 44: Calibration of field vibration calibrators |  |
|  | ISO 16063-45:2017 | Methods for the calibration of vibration and shock transducers — Part 45: In-situ calibration of transducers with built in calibration coil |  |
|  | ISO 16587:2004 | Mechanical vibration and shock — Performance parameters for condition monitoring of structures |  |
|  | ISO 18312-1:2012 | Mechanical vibration and shock — Measurement of vibration power flow from machines into connected support structures — Part 1: Direct method |  |
|  | ISO 18312-2:2012 | Mechanical vibration and shock — Measurement of vibration power flow from machines into connected support structures — Part 2: Indirect method |  |
|  | ISO 18431-1:2005 | Mechanical vibration and shock — Signal processing — Part 1: General introduction | IS/ISO 18431-1 : 2005 |
|  | ISO 18431-2:2004 | Mechanical vibration and shock — Signal processing — Part 2: Time domain windows for Fourier Transform analysis |  |
|  | ISO 18431-3:2014 | Mechanical vibration and shock — Signal processing — Part 3: Methods of time-frequency analysis |  |
|  | ISO 18431-4:2007 | Mechanical vibration and shock — Signal processing — Part 4: Shock-response spectrum analysis |  |
|  | ISO 18437-1:2012 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 1: Principles and guidelines |  |
|  | ISO 18437-2:2005 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 2: Resonance method |  |
|  | ISO 18437-3:2005 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 3: Cantilever shear beam method |  |
|  | ISO 18437-4:2008 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 4: Dynamic stiffness method |  |
|  | ISO 18437-5:2011 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 5: Poisson ratio based on comparison between measurements and finite element analysis |  |
|  | ISO 18437-6:2017 | Mechanical vibration and shock — Characterization of the dynamic mechanical properties of visco-elastic materials — Part 6: Time-temperature superposition |  |
|  | ISO/TR 19664:2017 | Human response to vibration — Guidance and terminology for instrumentation and equipment for the assessment of daily vibration exposure at the workplace according to the requirements of health and safety |  |
|  | ISO 21289:2008 | Mechanical vibration and shock — Parameters to be specified for the acquisition of vibration data | IS/ISO 21289 : 2008 |
|  | **[Standards by ISO/TC 108/SC 2\_Measurement and evaluation of mechanical vibration and shock as applied to machines, vehicles and structures] Standard and/or project under the direct responsibility of ISO/TC 108/SC 2 Secretariat(52)** | |  |
|  | ISO 4863:1984 | Resilient shaft couplings — Information to be supplied by users and manufacturers |  |
|  | ISO 4866:2010 | Mechanical vibration and shock — Vibration of fixed structures — Guidelines for the measurement of vibrations and evaluation of their effects on structures | IS/ISO 4866 : 2010 |
|  | ISO 8002:1986 | Mechanical vibrations — Land vehicles — Method for reporting measured data |  |
|  | ISO 8608:2016 | Mechanical vibration — Road surface profiles — Reporting of measured data |  |
|  | ISO 10055:1996 | Mechanical vibration — Vibration testing requirements for shipboard equipment and machinery components | IS/ISO 10055 : 1996 |
|  | ISO/TS 10811-1:2000 | Mechanical vibration and shock — Vibration and shock in buildings with sensitive equipment — Part 1: Measurement and evaluation | IS 15593 (Part 1) : 2005  lSO/TS 10811-1 : 2000 |
|  | ISO/TS 10811-2:2000 | Mechanical vibration and shock — Vibration and shock in buildings with sensitive equipment — Part 2: Classification | IS 15593 (Part 2) : 2005  lSO/TS 10811-2 : 2000 |
|  | ISO 10815:2016 | Mechanical vibration — Measurement of vibration generated internally in railway tunnels by the passage of trains | IS/ISO 10815 : 2016 |
|  | ISO 10816-6:1995 | Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts — Part 6: Reciprocating machines with power ratings above 100 kW | IS 14817 (Part 6) : 2004  IS0 10816-6 : 1995 |
|  | ISO 10816-7:2009 | Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts — Part 7: Rotodynamic pumps for industrial applications, including measurements on rotating shafts |  |
|  | ISO 10816-21:2015 | Mechanical vibration — Evaluation of machine vibration by measurements on non-rotating parts — Part 21: Horizontal axis wind turbines with gearbox |  |
|  | ISO 13373-1:2002 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 1: General procedures | IS/ISO 13373-1 : 2002 |
|  | ISO 13373-2:2016 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 2: Processing, analysis and presentation of vibration data | IS/ISO 13373-2 : 2016 |
|  | ISO 13373-3:2015 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 3: Guidelines for vibration diagnosis |  |
|  | ISO 13373-4:2021 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 4: Diagnostic techniques for gas and steam turbines with fluid-film bearings |  |
|  | ISO 13373-5:2020 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 5: Diagnostic techniques for fans and blowers |  |
|  | ISO 13373-7:2017 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 7: Diagnostic techniques for machine sets in hydraulic power generating and pump-storage plants |  |
|  | ISO 13373-9:2017 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 9: Diagnostic techniques for electric motors |  |
|  | ISO 13373-10:2024 | Condition monitoring and diagnostics of machines — Vibration condition monitoring — Part 10: Diagnostic techniques for electrical generators with fluid-film bearings |  |
|  | ISO 14837-1:2005 | Mechanical vibration — Ground-borne noise and vibration arising from rail systems — Part 1: General guidance |  |
|  | ISO/TS 14837-31:2017 | Mechanical vibration — Ground-borne noise and vibration arising from rail systems — Part 31: Guideline on field measurements for the evaluation of human exposure in buildings |  |
|  | ISO/TS 14837-32:2015 | Mechanical vibration — Ground-borne noise and vibration arising from rail systems — Part 32: Measurement of dynamic properties of the ground |  |
|  | ISO 14839-1:2018 | Mechanical vibration — Vibration of rotating machinery equipped with active magnetic bearings — Part 1: Vocabulary |  |
|  | ISO 14839-2:2004 | Mechanical vibration — Vibration of rotating machinery equipped with active magnetic bearings — Part 2: Evaluation of vibration |  |
|  | ISO 14839-3:2006 | Mechanical vibration — Vibration of rotating machinery equipped with active magnetic bearings — Part 3: Evaluation of stability margin |  |
|  | ISO 14839-4:2012 | Mechanical vibration — Vibration of rotating machinery equipped with active magnetic bearings — Part 4: Technical guidelines |  |
|  | ISO 14839-5:2022 | Mechanical vibration — Vibration of rotating machinery equipped with active magnetic bearings — Part 5: Touch-down bearings |  |
|  | ISO 14963:2003 | Mechanical vibration and shock — Guidelines for dynamic tests and investigations on bridges and viaducts | IS/ISO 14963 : 2003 |
|  | ISO 18649:2004 | Mechanical vibration — Evaluation of measurement results from dynamic tests and investigations on bridges |  |
|  | ISO/TR 19201:2013 | Mechanical vibration — Methodology for selecting appropriate machinery vibration standards |  |
|  | ISO 20283-2:2008 | Mechanical vibration — Measurement of vibration on ships — Part 2: Measurement of structural vibration | IS/ISO 20283-2 : 2008 |
|  | ISO 20283-3:2006 | Mechanical vibration — Measurement of vibration on ships — Part 3: Pre-installation vibration measurement of shipboard equipment |  |
|  | ISO 20283-4:2012 | Mechanical vibration — Measurement of vibration on ships — Part 4: Measurement and evaluation of vibration of the ship propulsion machinery |  |
|  | ISO 20283-5:2016 | Mechanical vibration — Measurement of vibration on ships — Part 5: Guidelines for measurement, evaluation and reporting of vibration with regard to habitability on passenger and merchant ships | IS/ISO 20283-5 : 2016  ISO 20283-5:2016 |
|  | ISO 20816-1:2016 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 1: General guidelines | IS/ISO 20816-1 : 2016 |
|  | ISO 20816-2:2017 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 2: Land-based gas turbines, steam turbines and generators in excess of 40 MW, with fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min and 3 600 r/min | IS/ISO 20816-2 : 2017 |
|  | ISO 20816-3:2022 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 3: Industrial machinery with a power rating above 15 kW and operating speeds between 120 r/min and 30 000 r/min | In Publication  See Item 2.1 S. No. 7 |
|  | ISO 20816-4:2018 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 4: Gas turbines in excess of 3 MW, with fluid-film bearings | IS/ISO 20816-4 : 2018 |
|  | ISO 20816-5:2018 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 5: Machine sets in hydraulic power generating and pump-storage plants | IS/ISO 20816-5 : 2018 |
|  | ISO 20816-8:2018 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 8: Reciprocating compressor systems |  |
|  | ISO 20816-9:2020 | Mechanical vibration — Measurement and evaluation of machine vibration — Part 9: Gear units |  |
|  | ISO 21940-1:2019 | Mechanical vibration — Rotor balancing — Part 1: Introduction |  |
|  | ISO 21940-2:2017 | Mechanical vibration — Rotor balancing — Part 2: Vocabulary | IS/ISO 21940-2 : 2017 |
|  | ISO 21940-11:2016 | Mechanical vibration — Rotor balancing — Part 11: Procedures and tolerances for rotors with rigid behaviour | IS/ISO 21940-11 : 2016 |
|  | ISO 21940-12:2016 | Mechanical vibration — Rotor balancing — Part 12: Procedures and tolerances for rotors with flexible behaviour | IS/ISO 21940-12 : 2016 |
|  | ISO 21940-13:2012 | Mechanical vibration — Rotor balancing — Part 13: Criteria and safeguards for the in-situ balancing of medium and large rotors | IS/ISO 21940-13 : 2012 |
|  | ISO 21940-14:2012 | Mechanical vibration — Rotor balancing — Part 14: Procedures for assessing balance errors | IS/ISO 21940-14 : 2012 |
|  | ISO 21940-21:2022 | Mechanical vibration — Rotor balancing — Part 21: Description and evaluation of balancing machines | IS/ISO 21940-21 : 2012  Revised standard in Publication |
|  | ISO 21940-23:2012 | Mechanical vibration — Rotor balancing — Part 23: Enclosures and other protective measures for the measuring station of balancing machines | IS/ISO 21940-23 : 2012 |
|  | ISO 21940-31:2013 | Mechanical vibration — Rotor balancing — Part 31: Susceptibility and sensitivity of machines to unbalance | IS/ISO 21940-31 : 2013 |
|  | ISO 21940-32:2012 | Mechanical vibration — Rotor balancing — Part 32: Shaft and fitment key convention | IS/ISO 21940-32 : 2012 |
|  | ISO 22266-1:2022 | Mechanical vibration — Torsional vibration of rotating machinery — Part 1: Evaluation of steam and gas turbine generator sets due to electrical excitation |  |
|  | **[Standards by ISO/TC 108/SC 4 Human exposure to mechanical vibration and shock] Standard and/or project under the direct responsibility of ISO/TC 108/SC 4 Secretariat(28)** | |  |
|  | ISO 2631-1:1997 | Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 1: General requirements | IS 13276 (Part 1) : 2000  ISO 2631-1:1997 |
|  | ISO 2631-2:2003 | Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 2: Vibration in buildings (1 Hz to 80 Hz) | IS/ISO 2631-2 : 2003 |
|  | ISO 2631-4:2001 | Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 4: Guidelines for the evaluation of the effects of vibration and rotational motion on passenger and crew comfort in fixed-guideway transport systems |  |
|  | ISO 2631-5:2018 | Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 5: Method for evaluation of vibration containing multiple shocks |  |
|  | ISO 5349-1:2001 | Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements | IS/ISO 5349-1 : 2001 |
|  | ISO 5349-2:2001 | Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 2: Practical guidance for measurement at the workplace | IS/ISO 5349-2 : 2001 |
|  | ISO 5805:1997 | Mechanical vibration and shock — Human exposure — Vocabulary | IS 13281 : 1999  ISO 5805:1997 |
|  | ISO 5982:2019 | Mechanical vibration and shock — Range of idealized values to characterize human biodynamic response under whole-body vibration | IS/ISO 5982 : 2019 |
|  | ISO 6897:1984 | Guidelines for the evaluation of the response of occupants of fixed structures, especially buildings and off-shore structures, to low-frequency horizontal motion (0,063 to 1 Hz) | IS 14732 : 2000  ISO 6897 : 1984 |
|  | ISO 8727:1997 | Mechanical vibration and shock — Human exposure — Biodynamic coordinate systems | IS 14910 : 2001  ISO 8727:1997 |
|  | ISO 9996:1996 | Mechanical vibration and shock — Disturbance to human activity and performance — Classification | IS 14979 : 2001  ISO 9996:1996 |
|  | ISO 10068:2012 | Mechanical vibration and shock — Mechanical impedance of the human hand-arm system at the driving point | IS 14916 : 2016  ISO 10068: 2012 |
|  | ISO 10227:1996 | Human/human surrogate impact (single shock) testing and evaluation — Guidance on technical aspects | IS 14907 : 2001  ISO 10227:1996 |
|  | ISO 10326-1:2016 | Mechanical vibration — Laboratory method for evaluating vehicle seat vibration — Part 1: Basic requirements | IS/ISO 10326-1 : 2016 |
|  | ISO 10326-2:2022 | Mechanical vibration — Laboratory method for evaluating vehicle seat vibration — Part 2: Application to railway vehicles |  |
|  | ISO/TR 10687:2022 | Mechanical vibration — Description and determination of seated postures with reference to whole-body vibration |  |
|  | ISO 10819:2013 | Mechanical vibration and shock — Hand-arm vibration — Measurement and evaluation of the vibration transmissibility of gloves at the palm of the hand |  |
|  | ISO 13090-1:1998 | Mechanical vibration and shock — Guidance on safety aspects of tests and experiments with people — Part 1: Exposure to whole-body mechanical vibration and repeated shock |  |
|  | ISO 13091-1:2001 | Mechanical vibration — Vibrotactile perception thresholds for the assessment of nerve dysfunction — Part 1: Methods of measurement at the fingertips |  |
|  | ISO 13091-2:2021 | Mechanical vibration — Vibrotactile perception thresholds for the assessment of nerve dysfunction — Part 2: Analysis and interpretation of measurements at the fingertips |  |
|  | ISO 13753:1998 | Mechanical vibration and shock — Hand-arm vibration — Method for measuring the vibration transmissibility of resilient materials when loaded by the hand-arm system |  |
|  | ISO 14835-1:2016 | Mechanical vibration and shock — Cold provocation tests for the assessment of peripheral vascular function — Part 1: Measurement and evaluation of finger skin temperature |  |
|  | ISO 14835-2:2005 | Mechanical vibration and shock — Cold provocation tests for the assessment of peripheral vascular function — Part 2: Measurement and evaluation of finger systolic blood pressure |  |
|  | ISO 15230-1:2021 | Mechanical vibration and shock — Coupling forces at the man-machine interface for hand-transmitted vibration — Part 1: Measurement and evaluation |  |
|  | ISO/TS 15230-2:2023 | Mechanical vibration and shock — Coupling forces at the man-machine interface for hand-transmitted vibration — Part 2: Evaluation of coupling forces |  |
|  | ISO/TS 15694:2004 | Mechanical vibration and shock — Measurement and evaluation of single shocks transmitted from hand-held and hand-guided machines to the hand-arm system |  |
|  | ISO/TR 18570:2017 | Mechanical vibration — Measurement and evaluation of human exposure to hand transmitted vibration — Supplementary method for assessing risk of vascular disorders |  |
|  | ISO/TS 22704:2022 | Mechanical vibration — Uncertainty of the measurement and evaluation of human exposure to vibration |  |
|  | **[Standards by ISO/TC 108/SC 5 Condition monitoring and diagnostics of machine systems] Standard and/or project under the direct responsibility of ISO/TC 108/SC 5 Secretariat(28)** | |  |
|  | ISO 13372:2012 | Condition monitoring and diagnostics of machines — Vocabulary |  |
|  | ISO 13374-1:2003 | Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 1: General guidelines |  |
|  | ISO 13374-2:2007 | Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 2: Data processing |  |
|  | ISO 13374-3:2012 | Condition monitoring and diagnostics of machines — Data processing, communication and presentation — Part 3: Communication |  |
|  | ISO 13374-4:2015 | Condition monitoring and diagnostics of machine systems — Data processing, communication and presentation — Part 4: Presentation |  |
|  | ISO 13379-1:2012 | Condition monitoring and diagnostics of machines — Data interpretation and diagnostics techniques — Part 1: General guidelines |  |
|  | ISO 13379-2:2015 | Condition monitoring and diagnostics of machines — Data interpretation and diagnostics techniques — Part 2: Data-driven applications |  |
|  | ISO 13381-1:2015 | Condition monitoring and diagnostics of machines — Prognostics — Part 1: General guidelines |  |
|  | ISO 14830-1:2019 | Condition monitoring and diagnostics of machine systems — Tribology-based monitoring and diagnostics — Part 1: General requirements and guidelines |  |
|  | ISO 16079-1:2017 | Condition monitoring and diagnostics of wind turbines — Part 1: General guidelines |  |
|  | ISO 16079-2:2020 | Condition monitoring and diagnostics of wind turbines — Part 2: Monitoring the drivetrain |  |
|  | ISO 17359:2018 | Condition monitoring and diagnostics of machines — General guidelines |  |
|  | ISO 18095:2018 | Condition monitoring and diagnostics of power transformers |  |
|  | ISO 18129:2015 | Condition monitoring and diagnostics of machines — Approaches for performance diagnosis |  |
|  | ISO 18434-1:2008 | Condition monitoring and diagnostics of machines — Thermography — Part 1: General procedures |  |
|  | ISO 18434-2:2019 | Condition monitoring and diagnostics of machine systems — Thermography — Part 2: Image interpretation and diagnostics |  |
|  | ISO 18436-1:2021 | Condition monitoring and diagnostics of machine systems — Requirements for certification of personnel — Part 1: Sector specific requirements for certification bodies and the certification process |  |
|  | ISO 18436-2:2014 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 2: Vibration condition monitoring and diagnostics |  |
|  | ISO 18436-3:2012 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 3: Requirements for training bodies and the training process |  |
|  | ISO 18436-4:2014 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 4: Field lubricant analysis |  |
|  | ISO 18436-5:2012 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 5: Lubricant laboratory technician/analyst |  |
|  | ISO 18436-6:2021 | Condition monitoring and diagnostics of machines — Requirements for certification of personnel — Part 6: Acoustic emission |  |
|  | ISO 18436-7:2014 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 7: Thermography |  |
|  | ISO 18436-8:2013 | Condition monitoring and diagnostics of machines — Requirements for qualification and assessment of personnel — Part 8: Ultrasound |  |
|  | ISO 19283:2020 | Condition monitoring and diagnostics of machines — Hydroelectric generating units |  |
|  | ISO 20958:2013 | Condition monitoring and diagnostics of machine systems — Electrical signature analysis of three-phase induction motors |  |
|  | ISO 22096:2007 | Condition monitoring and diagnostics of machines — Acoustic emission |  |
|  | ISO 29821:2018 | Condition monitoring and diagnostics of machines — Ultrasound — General guidelines, procedures and validation |  |
|  | **[Standards by ISO/TC 108/SC 6 Vibration and shock generating systems] Standard and/or project under the direct responsibility of ISO/TC 108/SC 6 Secretariat(8)** | |  |
|  | ISO 15261:2004 | Vibration and shock generating systems — Vocabulary |  |
|  | ISO 10813-4:2022 | Vibration generating machines — Guidance for selection — Part 4: Equipment for multi-axial environmental testing |  |
|  | ISO 10813-2:2019 | Vibration-generating machines — Guidance for selection — Part 2: Equipment for dynamic structural testing |  |
|  | ISO 10813-1:2023 | Vibration generating machines — Guidance for selection — Part 1: Equipment for environmental testings |  |
|  | ISO 8626:1989 | Servo-hydraulic test equipment for generating vibration — Method of describing characteristics | IS/ISO 8626 : 1989 |
|  | ISO 8568:2007 | Mechanical shock — Testing machines — Characteristics and performance |  |
|  | ISO 6070:2019 | Auxiliary tables for vibration generators — Methods of describing equipment characteristics | IS/ISO 6070 : 2019 |
|  | ISO 5344:2004 | Electrodynamic vibration generating systems — Performance characteristics | IS/ISO 5344 : 2004 |

*Committee may select the next 5 standards from each subcommittee for reviewing the standards for adoption.*

[List of ISO Standard for Review of ISO/TC 180](https://drive.google.com/drive/folders/1MPhQwU9ahe8spEF7-IHhDQwSrD1jvgfr?usp=drive_link)

**9.7** **Designation of Experts at ISO/IEC**

As per the directiors received from higher management of BIS, each Sectional Committee shall focus on participating in the making of ISO/IEC standards on the basis of the Level of Interest established in respect of a NWIP or draft standard. Then, it shall designate one or two members of the Sectional Committee to represent BIS for ISO/IEC standards categorized as Level H (High) and M (Medium) and mandatorily comment on the ballots of these subjects.

These designated experts will act as face and voice of BIS for the project at the ISO/IEC level. The designated expert shall be responsible for providing detailed feedback on drafts and documents from ISO/IEC, assisting the Sectional Committee in developing the rationale for proposing NWIPs, finalizing proposals for leadership positions and secretariats and briefing the Sectional Committee on discussions at the ISO/IEC level. These experts will also be participating mandatorily in all ISO/IEC meetings.

MED 28 sectional committee has liaison with the following SCs and WGs of ISO/ TC 108 and experts have been nominated as follows at ISO/IEC level-

| **Sl No.** | **Concerned ISO/IEC/ TC, SC & WG** | | **Experts nominated earlier** | | --- | | | **To be nominated now (Y/N)** |
| --- | --- | --- | --- | --- | --- |
| 1. | ISO/TC 108- Mechanical vibration, shock and condition monitoring  Scope of Committee  <https://www.iso.org/committee/51402.html> | Bureau of Indian Standards (BIS) | Shri Chandan Gupta  [med@bis.gov.in](mailto:med@bis.gov.in)  Smt Khashboo kumari  [med@bis.gov.in](mailto:med@bis.gov.in) |  |
| 2. | ISO/TC 108/WG 28 Vibration materials | - | - | - |
| 3. | ISO/TC 108/WG 33 Human response to vibration - Measuring instrumentation | - | - | - |
| 4. | ISO/TC 108/WG 34 Calibration of vibration and shock transducers | - | - | - |
| 5. | ISO/TC 108/SC 2  Measurement and evaluation of mechanical vibration and shock as applied to machines, vehicles and structures  Scope of Committee  <https://www.iso.org/committee/51472.html> | Bureau of Indian Standards (BIS) | Shri Chandan Gupta  [med@bis.gov.in](mailto:med@bis.gov.in)  Smt Khashboo kumari  [med@bis.gov.in](mailto:med@bis.gov.in) |  |
| 6. | ISO/TC 108/SC 2/WG 1 Rotordynamics and vibration of machines | - | - | - |
| 7. | ISO/TC 108/SC 2/WG 7 Vibration of machines with active magnetic bearings | - | - | - |
| 8. | ISO/TC 108/SC 2/WG 8 Ground-borne noise and vibration from rail systems | - | - | - |
| 9. | ISO/TC 108/SC 2/WG 10 Basic techniques for vibration diagnostics | - | - | - |
| 10. | ISO/TC 108/SC 2/WG 31 Balancing | - | - | - |
| 11. | ISO/TC 108/SC 4  Human exposure to mechanical vibration and shock  Scope of Committee  <https://www.iso.org/committee/51514.html> | Bureau of Indian Standards (BIS) | Shri Chandan Gupta  [med@bis.gov.in](mailto:med@bis.gov.in)  Smt Khashboo kumari  [med@bis.gov.in](mailto:med@bis.gov.in) |  |
| 12. | ISO/TC 108/SC 4/WG 3 Hand-transmitted vibration | - | - | - |
| 13. | ISO/TC 108/SC 4/WG 9 Whole-body vibration in railbound vehicles | - | - | - |
| 14. | ISO/TC 108/SC 4/WG 13 Evaluation of human exposure to whole-body vibration | - | - | - |
| 15. | ISO/TC 108/SC 4/WG 14 Posture related to whole-body vibration | - | - | - |
| 16. | ISO/TC 108/SC 5  Condition monitoring and diagnostics of machine systems  Scope of the committee  <https://www.iso.org/committee/51538.html> | Bureau of Indian Standards (BIS) | Shri Chandan Gupta  [med@bis.gov.in](mailto:med@bis.gov.in)  Smt Khashboo kumari  [med@bis.gov.in](mailto:med@bis.gov.in) |  |
| 17 | ISO/TC 108/SC 5/WG 7 Training and accreditation in the field of condition monitoring and diagnostics | - | - | - |
| 18 | ISO/TC 108/SC 5/WG 11 Thermal imaging | - | - | - |
| 19 | ISO/TC 108/SC 5/WG 15 Ultrasonics | - | - | - |
| 20 | ISO/TC 108/SC 5/WG 16 Condition monitoring and diagnostics of wind turbines | - | - | - |
| 21 | ISO/TC 108/SC 5/WG 17 Condition monitoring and diagnostics applications | - | - | - |
| 22 | ISO/TC 108/SC 5/WG 18 Condition monitoring management | - | - | - |
| 23 | ISO/TC 108/SC 6  Vibration and shock generating systems  Scope of the committee  <https://www.iso.org/committee/51568.html> | Bureau of Indian Standards (BIS) | Shri Chandan Gupta  [med@bis.gov.in](mailto:med@bis.gov.in)  Smt Khashboo kumari  [med@bis.gov.in](mailto:med@bis.gov.in) |  |
| 24 | ISO/TC 108/SC 6/WG 3 Guidance for selection of vibration generators | - | - | - |

*Committee may nominate experts on the above.*

**ITEM 10 BIS COMMITTEES OF THE YEAR AWARDS**

To recognize the significant contribution and outstanding performance of a BIS Sectional Committee or Subcommittee in the development of Indian Standards these awards have been started. Any Sectional Committee or Sub-Committee of BIS would be eligible for the award. The award shall be given to one of the Sectional Committees or Subcommittees under each Divisional Councils on an annual basis. Nomination for the award can be submitted by any Sectional committee/Sub-Committee (by the Chairperson or a Member). Nominations should be submitted to the Member Secretary of the Committee by 30 April of the year in the prescribed form.

The selection shall be based on the following criteria.

- The size and portfolio of the committee’s work, including of any work plan

- Management of current work program with priority setting, development of need based standards having high degree of relevance, ensuring timelines of standard development

- Timely review & up-dating of standards

- Number of standards published

- Good meeting dynamics with - timely meetings, ensuring adequate agenda items and good level of participation of members.

- Good coordination & communication internally with reporting by a subordinate committee.

- Promotional activities of committee work through workshops, conferences, seminars and trainings

- Contributions to international standards activities

- Specific achievements that are outstanding in nature including any committee level innovations.

The award shall comprise of a plaque and a certificate which shall be presented on the occasion of World Standards Day celebration each year to be received by the Committee Chairperson/Convener or a member or its Member Secretary.

*The Committee may please* ***note****.*

**Item 12 NATIONAL AND INTERNATIONAL LEVEL EVENTS TO BE PARTICIPATED IN**

BIS has envisaged participation in events organised at national and international level as these events showcases the latest trends in the field of standardisation and technological advancements. Considering the importance of these events committee may please suggest such event where participation of BIS can benefit development of national standards.

*The Committee may please note.*

**Item 13 SCIENTIFIC JOURNALS AND PERIODICALS TO BE SUBSCRIBED**

BIS has taken a new initiative to subscribe to scientific journal and periodicals relevant to committee work. It is also envisaged that relevant articles from these journal and periodicals are shared with members of sectional committee.

*Subscription of the journal ‘Mechanical Systems and Signal Processing’ is under process.*

*Committee may note the information.*

**Item 14 DATE AND PLACE FOR THE NEXT MEETING**

**Item 15 ANY OTHER BUSINESS WITH PERMISSION OF CHAIR**

**Annex 1**

(*Clause* **5.3**)

**COMPOSITION OF MECHANICAL VIBRATION AND SHOCK SECTIONAL COMMITTEE, MED 28**

| **Meeting** | **Date** | **Place** |
| --- | --- | --- |
| 27th | 20-12-2023 | Hybrid |
| 28th | 29-05-2024 | Hybrid |
| 29th | 12-09-2024 | Hybrid |

| **Sl. No** | **ORGANISATION REPRESENTED** | **PRINCIPAL MEMBER/ ALTERNATE MEMBER** | **27th** | **28th** | **29th** | **Total** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Bharat Heavy Electricals Ltd. , Hyderabad | Shri Manish Agrawal (*Chairperson*) | Y | Y | Y | 3/3 |
| 2 | Automotive Research Association of  India, Pune | Shri V. V. Shinde  Shri Prashant R. Pawar  Shri Nikhil R. Bakal (*YP*) | N | N | Y | 1/3 |
| 3 | Bhabha Atomic Research Centre , Mumbai | Shri Jitendra Kumar Pandey  Shri S K Sinha (*Alt*) | N | N | N | 0/3 |
| 4 | Bharat Dynamics Limited, Hyderabad | Shri K. Sreenivasa Rao  Shri Anil Kumar (*Alt*) | Y | Y | Y | 3/3 |
| 5 | Bharat Heavy Electricals Ltd. (Manufacturing Centre), Hyderabad | Ms Clara Toppo  Shri Manish Chandra Gupta (*Alt*) | N | N | Y | 1/3 |
| 6 | Bharat Heavy Electricals Ltd. , New Delhi | Shri Ankit Agrawal (*Alt*)  Shri Prince Malik (*Alt*) | Y | Y | Y | 3/3 |
| 7 | Bosch Limited, Bengaluru | Shri Shiva Kiran A R  Shri Parinit Angadi (*Alt*) | NA | Y | Y | 2/2 |
| 8 | CSIR - National Physical Laboratory, New Delhi | Dr. Naveen Garg  Dr. Chitra Gautam | Y | Y | Y | 3/3 |
| 9 | CSIR – Central Mechanical Research Institute, Durgapur | Dr. S.K. Laha | Y | Y | N | 2/3 |
| 10 | CSIR - National Aerospace Laboratories, Bengaluru | Dr. Soumendu Jana  Dr. Sadanand S. Kulkarni (*Alt*) | Y | Y | Y | 3/3 |
| 11 | D-CAD Technologies , New Delhi | Shri Nakul Joshi | N | N | N | 0/3 |
| 12 | Defence Research and Development  Organization, Research Centre Imarat, Hyderabad | Shri Vivek Kumar Bajpai  Shri Ravindra Kumar Misra (*Alt*) | N | N | N | 0/3 |
| 13 | Hindustan Aeronautics Ltd, Bangalore | Shri A. V. Vaitheeswaran  Shri M. Murali (*Alt*) | N | N | Y | 1/3 |
| 14 | Indian Institute of Technology Bombay, Mumbai | Shri V. Kartik | Y | Y | Y | 3/3 |
| 15 | Indian Institute of Technology ,Hyderabad | Shri B. Venkatesham  Shri R. Prashant Kumar (*Alt*) | N | N | Y | 1/3 |
| 16 | Indian Institute of Technology, Kanpur | Prof Pankaj Wahi | N | N | Y | 1/3 |
| 17 | Indian Institute of Technology ,Chennai | Shri Seshadri Sekhar | N | N | N | 0/3 |
| 18 | Indian Institute of Technology, Deptt. of Earthquake Engg, Roorkee | Shri Manish Shrikhande  Dr Anil Kumar (*Alt*) | Y | Y | Y | 3/3 |
| 19 | Indian Institute of Technology, Indore | Dr Anand Parey | NA | NA | Y | 1/1 |
| 20 | Indian Space Research Organization -  Vikram Sarabhai Space Centre, Thiruvananthapuram | Shri R. Arunkumar  Shri Balamurali A.G (*Alt*) | Y | Y | Y | 3/3 |
| 21 | Indira Gandhi Centre For Atomic Research, Kalpakkam | Dr B. K. Sreedhar | Y | N | N | 1/3 |
| 22 | Maruti Udyog Limited, Gurugram | Shri Mukundaram R  Shri Joydeep Chatterjee (*Alt*) | N | Y | N | 1/3 |
| 23 | Naval Science and Technological Laboratories, Visakhapatnam | Dr. V Rama Krishna  Mr. K Udayanand (*Alt*) | Y | Y | Y | 3/3 |
| 24 | Oil and Natural Gas Corporation Limited, New Delhi | Shri Harish Bhambhani  Shri Niraj Kumar (*Alt*) | N | N | Y | 1/3 |
| 25 | Resistoflex Pvt Ltd, New Delhi | Shri Ratish Jain  Shri Meha Jain (*Alt*)  Shri Abhishek Shukla (YP) | Y | Y | Y | 3/3 |
| 26 | Sampoorna Rotor Dynamics Consultancy, Bangalore | Dr. V. Bhaskarsarma | N | N | Y | 1/3 |
|  | Saraswati Dynamics Pvt. Ltd., Roorkee | Shri Arjun Goel  Shri Sanjeev Arya (*Alt*) | Y | N | Y | 2/3 |
| 27 | Tata Motors Limited, Pune | Shri Rohit Vaidya  Shri Dayanand Billade (*Alt*) | N | N | Y | 1/3 |
| 28 | In Personal Capacity | Shri Nagesh V. Karanth | Y | Y | N | 2/3 |
| 29 | In Personal Capacity | Shri Uppuluri Sridhar | N | Y | Y | 2/3 |
| 30 | In Personal Capacity | Shri A. Rama Rao | Y | Y | Y | 3/3 |