



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)

BUREAU OF INDIAN STANDARDS

(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India)

मानक भवन, 9, बहादुर शाह ज़फर मार्ग, नई दिल्ली - 110002

Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi - 110002

Mob.: 7071963270, Phones: 011-23608594, Extn: 8594

Website: www.bis.org.in, www.bis.gov.in

कार्यवृत्त

हमारा संदर्भ: सीईडी 43/ए-2.17

26 सितंबर 2024

विषय: मृदा एवं नीव इंजीनियरिंग विषय समिति, सीईडी 43 की सत्रहवी बैठक के कार्यवृत्त
सीईडी 43 के सभी सदस्य

प्रिय महोदय/महोदया,

मृदा एवं नीव इंजीनियरिंग विषय समिति, सीईडी 43 की सत्रहवी बैठक के कार्यवृत्त जो बुधवार, 09 सितंबर 2024 को नई दिल्ली में संपन्न हुई, के कार्यवृत्त भेजते हुए प्रसन्नता हो रही है। कार्यवृत्त की पुष्टि श्री सी. पुष्पकरण, अध्यक्ष, मृदा एवं नीव इंजीनियरिंग विषय समिति, सीईडी 43, द्वारा की जा चुकी है।

सम्मतिyaँ भेजने की अंतिम तिथि: 02 अक्टूबर 2024

आपसे अनुरोध है की कृपया कार्यवृत्त का अवलोकन करें और हमें बताये की इसकी यथार्थता पर आप सहमत है। अगर उपरोक्त तिथि तक कोई सम्मति प्राप्त नहीं होती है तो आपकी सुविधा के लिए समझा जायेगा की आपने कार्यवृत्त का अनुमोदन कर दिया है।

धन्यवाद।

भवदीय,
ह०

(धीरज दमाच्या)

सहायक निदेशक / वैज्ञानिक 'बी'

ईमेल: ced43@bis.gov.in

दूरभाष: 011-23608594, extn 8594

संलग्न: उपरलिखित

बीआईएस द्वारा ग्रीन इनिशिएटिव के कारण केवल कार्यवृत्त की सॉफ्ट कॉपी भेजी जा रही है।



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MINUTES

Our Ref: CED 43/A-2.17

26 September 2024

Subject: Minutes of the Seventeenth Meeting of the Soil and Foundation Engineering Sectional Committee, CED 43

ALL MEMBERS OF CED 43

Dear Members,

Please find enclosed the Minutes of the seventeenth meeting of the Soil and Foundation Engineering Sectional Committee, CED 43, held in Hybrid mode on Monday, 09 September 2024. The Minutes have been duly approved by Chairperson, CED 43, Shri C. Pushpakaran.

Last date for comments: 02 October 2024

Comments if any, confined to the accuracy of recording, may please be mailed to the undersigned preferably by the last date for comments. If no reply received by this date, kindly allow us to presume your approval of the minutes as recorded.

Thanking you,

**Yours faithfully,
Sd/-**

(Dheeraj Damachya)

Assistant Director/ Scientist B

Email: ced43@bis.gov.in

Tele: 011-23608594, extn 8594

Encl: As Above

As a part of Green Initiative by BIS only Soft Copy of the Meeting is being sent.

BUREAU OF INDIAN STANDARDS

MINUTES

Soil and Foundation Engineering Sectional Committee, CED 43 : Seventeenth Meeting

Monday, 09 September 2024 : 1030 h

Through Hybrid mode from BIS-HQ, New Delhi

PRESENT

Chairperson: Shri C. Pushpakaran

Member Secretary: Shri Dheeraj Damachya

Members:

Shri T. Madhusudhana Rao, Bharat Heavy Electrical Limited, New Delhi
Shri Vivek Varshney, Rep. Bharat Heavy Electrical Limited, New Delhi
Shri Rohitash Barua, Aimil Limited, New Delhi
Shri Sunil Basarkar, Afcons Infrastructure Limited, New Delhi
Shri Ashok Kumar Basa, CEM Engineers and Consultants Private Limited, Bhubaneswar
Shri Manojit Samanta, CSIR - Central Building Research Institute, Roorkee
Shri S. Ganesh Kumar, CSIR - Central Building Research Institute, Roorkee
Dr Kanwar Singh, CSIR - Central Road Research Institute, New Delhi
Dr P. S. Prasad, CSIR - Central Road Research Institute, New Delhi
Dr P. Kamatchi, CSIR - Structural Engineering Research Centre, Chennai
Dr A. Thirumalaiselvi, CSIR – Structural Engineering Research Centre, Chennai
Shri Sanjay Gupta, CENGRS Geotechnica Private Limited, Noida
Shri Manish Gupta Central Soil and Materials Research Station, New Delhi
Shri Swapna Verma, Central Soil and Materials Research Station, New Delhi
Dr K. G. Bhatia, D-CAD Technologies, New Delhi
Shri Sampat Raj, Engineers India Limited, New Delhi
Shri Anil Banoth, Engineers India Limited, New Delhi
Shri Ravi Kiran Vaidya, Geodynamics Limited, Vadodara
Shri Sujan Kulkarni, Geodynamics Limited, Vadodara
Shri Jaykumar Shukla, Rep. Geodynamics Limited, Vadodara
Shri Prashant Tukaram Ilamkar, Geological Survey of India, New Delhi
Shri Manish Kumar, ITD Cementation India Limited, Kolkata
Dr Anil Joseph, Indian Geotechnical Society, New Delhi
Prof Deepankar Choudhury, Indian Institute of Technology Bombay, Mumbai
Prof Priyanka Ghosh, Indian Institute of Technology Kanpur, Kanpur
Prof Subhadeep Banerjee, Indian Institute of Technology Madras, Chennai
Prof B. K. Maheshwari, Indian Society of Earthquake Technology, Roorkee

Prof Sibapriya Mukherjee, Jadhav University, Kolkata
Shri V. V. S. Ramadas, Keller Ground Engineering Private Limited, Chennai
Shri PVSR Prasad, *Rep.* Keller Ground Engineering Private Limited, Chennai
Shri Sivaraman S, *Rep.* L&T Geostructure Private Limited, Chennai
Shri Anil Pruthi, Ministry of Ports, Shipping and Waterways, New Delhi
Dr N. Santosh Rao, Nagadi Consultants Private Limited, New Delhi
Shri Mandeep Singh, *Rep.* Nagadi Consultants Private Limited, New Delhi
Shri Jitendra Kumar, National Capital Region Transport Corporation, New Delhi
Shri R. P. Singh, National High Speed Rail Corporation Ltd, Mumbai
Shri Mani Bhushan Kumar, NTPC Limited, Hyderabad
Shri Sumeet Mahajan, RITES Limited, Gurugram
Smt M. Manjula, Telangana State Engineering Research Laboratories, Hyderabad
Shri Pushkar V. Deshpande, The Pressure Piling Company (India) Private Limited, Mumbai
Shri Hitesh Desai, Unique Geocivil Services Private Limited, Surat
Dr V. Balakumar, In Personal Capacity, Chennai

INVITEES

Shri I. V. Anirudhan, Geotechnical Solutions, Chennai
Shri Ashutosh Kumar, Indian Institute of Technology Mandi, Mandi
Shri Aniruddha Bhaduri, Marsh McLennan, Mumbai
Shri G. Prabhakar, Nuclear Power Corporation of India Limited, Mumbai

Item 0 OPENING REMARKS BY THE CHAIRPERSON

The Chairperson, Shri C. Pushpakaran, greeted and extended a warm welcome to all the participants to the Seventeenth meeting of the Soil and Foundation Engineering Sectional Committee, CED 43. He at the outset addressed the Committee by highlighting the important subjects being dealt by the Committee and appreciated the work done by the panels of CED 43 for preparation and finalization of the relevant drafts. He congratulated and thanked the respective conveners for putting their time and efforts for national standardization. He also suggested that the conveners of the various panels may inform regarding the progress of the panel and give an indicative timeline for completion of the drafts.

He also thanked the participants for taking time out of their busy schedule and joining the meeting. The Chairperson concluded the opening remarks by requesting everyone to keep contributing wholeheartedly to the future endeavours of the Committee and wished for a fruitful outcome of the meeting. The Chairperson then requested participants to give their brief introduction.

The Chairperson, thereafter, requested Member Secretary to proceed with the Agenda item-wise.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 There being no comments, the Committee confirmed the minutes of the last (Sixteenth) meeting of the Soil and Foundation Engineering Sectional Committee CED 43, held on 05 June 2024, circulated vide BISDG letter No. CED 43/A-2.16 dated 22 June 2024.

Item 2 COMPOSITION OF COMMITTEE

2.1 and 2.2 The Committee noted the present composition and attendance as given in Annex 1 of the Agenda. The Member secretary also informed/explained committee regarding the new guidelines of BIS for reforms in the standardization and requested members to actively participate in the meetings as the participation in the meeting is viewed seriously.

In respect of various requests for co-options received through BIS portal, it was noted that most of them were from individuals/students. The Committee viewed that requests for co-option on a national committee should come from the head of the organization or from an official duly authorized. Further, considering that representation should be given to professional/technical bodies/academic institutes of national repute working in the field of subject areas or individual experts of high eminence not representing any organization, the Committee did not agree to any of the requests received on the ManakOnline portal.

(Further it is to be noted that emails to the below mentioned members were sent before the meeting to provide their nomination details and participate in the meeting. However, based on their non-participation in this meeting, the following would be withdrawn from the Committee and a communication would be sent to them regarding the same while also mentioning that we would be eager to welcome them in the Committee if they provide their fresh co-option requests.

1. Central Board of Irrigation and Power, New Delhi
2. Delhi Technological University, New Delhi
3. Ground Engineering Limited, New Delhi
4. Hindustan Construction Company Limited, Mumbai
5. MECON Limited, Ranchi)

The Committee also decided to retain the following organizations as they are involved in formulation of standards under various subjects of CED 43 or have an important role in ongoing subjects which are not part of today's Agenda. Letters to be sent to them for regular participation in future meetings.

1. Delhi Development Authority, New Delhi
2. Indian Institute of Science, Bengaluru
3. Indian Road Congress, New Delhi
4. Mumbai Port Trust, Mumbai
5. National Institute of Disaster Management, New Delhi

6. Safe Enterprises, Mumbai
7. STUP Consultants Pvt Ltd, Mumbai

The Committee also decided to send letters to the following organizations to ensure their participation in the next meeting to avoid their termination from the Committee:

1. Central Electricity Authority, New Delhi
 2. Central Public Works Department, New Delhi
 3. Indian Institute of Technology Delhi, New Delhi
 4. Military Engineer Services, Engineer-in-Chief's Branch, Integrated HQ of MoD (Army), New Delhi
 5. Tata Consulting Engineers Limited, Mumbai
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- a) It was noted that National High Speed Rail Corporation Limited, Mumbai had earlier provided their nominations for the Panels of CED 43. During the meeting it was informed that the same member (Shri Raghvendra Pratap Singh, DGM, Civil) will also represent their organization in the Sectional Committee, CED 43.
 - b) *New Nominations has been received from Power Grid Corporation of India Limited, PGCIL, Gurugram, Nominating Shri Nitesh Kumar Sinha, Shri Pankaj Kumar Dwivedi, and Shri Pradeep P as their Principal member, Alternate member and Young Professional respectively.*
 - c) *New Nominations has been received from NTPC Ltd, Secunderabad Nominating Shri Mani Bhushan Kumar, and Shri Devender Singh as their Principal member and Alternate member respectively.*
 - d) *New Nominations has been received from Research Design and Standards Organisation (Ministry of Railways), Lucknow, Nominating Shri S. K. Awasthi and Shri Sanjiv Kumar as their Principal member and Alternate member respectively.*

The Committee reviewed the Composition of the Panels as given in the Agenda and decided to constitute Working Groups for revision/formulation of standards where earlier there were panels. The panels were decided to be disbanded after constitution of the Working Groups. The Committee also noted the progress of the Working Groups and their timeline for draft completion. The Composition of the Working Groups is given in **Annex 1**.

Item 3 PROGRAMME OF WORK.

3.1 The Committee noted its present position of work as given in the Agenda.

3.2 and 3.3 The Committee noted the information as given in the Agenda.

Item 4 DRAFT INDIAN STANDARDS FOR FINALIZATION

4.1 Finalization of standards for Test Equipment

The Committee noted the following 17 drafts for revision of standards for test equipment which were reviewed by the Committee members. The drafts were modified based on the comments received from the members and attached in the Agenda. The Committee suggested a few minor editorial modifications in few standards which are star marked and with those modifications, approved them for **ADOPTION** and **PRINTING**.

SI No.	Title and Document No.
1	DOC : CED 43 (20812)WC Draft Indian Standard for Casagrande Apparatus for Determination of Liquid Limit of Soils by Impact Method — Specification (First Revision of IS 9259)
2	DOC : CED 43 (20693)WC Draft Indian Standard for Earth Augers (Spiral Type) — Specification (First Revision of IS 10442)
3	DOC : CED 43 (20670)WC Draft Indian Standard for CBR Moulds and its Accessories — Specification (First Revision of IS 9669)
4	DOC : CED 43 (20668)WC Draft Indian Standard Equipment for Determination of Shrinkage Factors — Specification (First Revision of IS 10077)
5	DOC : CED 43 (21048)WC Draft Indian Standard for Mould Assembly for Determination of Permeability of Soils — Specification (First Revision of IS 11209)
6	DOC : CED 43 (21137)WC Draft Indian Standard for Compaction Rammers for Soil Testing — Specification (First Revision of IS 9198)*(Correction in Fig.3)
7	DOC : CED 43 (20669)WC Draft Indian Standard for Equipment for Determination of Liquid Limit of Soil by Cone Penetration Method — Specification (First Revision of IS 11196)
8	DOC : CED 43 (21138)WC Draft Indian Standard for Mild Steel Thin Walled Sampling Tubes and Sampler Heads — Specification (First Revision of IS 11594)
9	DOC : CED 43 (21162)WC Draft Indian Standard for Mould for Determination of Linear Shrinkage of Soil — Specification (First Revision of IS 12979)
10	DOC : CED 43 (21226)WC Draft Indian Standard for Apparatus for Determination of Dry Density of Soil by Core Cutter Method — Specification (First Revision of IS 13468)
11	DOC : CED 43 (21227)WC Draft Indian Standard for Compaction Mould Assembly for Light and Heavy Compaction Test of Soil — Specification (First Revision of IS 10074)

12	DOC : CED 43 (21298)WC Draft Indian Standard for Consolidometer for Determination of Consolidation Properties of Soil — Specification (First Revision of IS 12287)
13	DOC : CED 43 (21232)WC Draft Indian Standard for Shear Box (Large) for Testing of Soils — Specification (First Revision of IS 11593)
14	DOC : CED 43 (21297)WC Draft Indian Standard for Moulds and Accessories for Determination of Density Index (Relative Density) of Cohesionless Soil — Specification (First Revision of IS 10837)
15	DOC : CED 43 (22265)WC Draft Indian Standard for Split Spoon Sampler for Standard Penetration Test of Soil — Specification (First Revision of IS 9640)* (Correction in Fig 1, 2 and 4)
16	DOC : CED 43 (21049)WC Draft Indian Standard Shear Box for Testing of Soils — Specification (First Revision of IS 11229)
17	DOC : CED 43 (21050)WC Draft Indian Standard Rapid Moisture Meter for Rapid Determination of Water Content for Soil — Specification (First Revision of IS 12175)* <ol style="list-style-type: none"> 1 Ref to IS 1040 year to be updated and reference to be removed from table and added in clause. 2 Clause 5.4 “with a” in place of “and”)

The Committee requested the BIS Secretariat to send the modified drafts in for **ADOPTION** and **PRINTING** and approved the BIS Secretariat to make any other editorial corrections as may be needed for publication of the standard.

4.2 Draft Indian Standard for Standard Penetration Test of Soil — Method of Test (Second Revision of IS 2131) DOC : CED 43 (21115)WC

The Committee noted that the Working Group had discussed the comments received on the WC draft and noted the modified draft as attached in Annex 21 of the Agenda. However, upon much discussion on the parameters for termination of SPT a consensus could not be reached. The Committee therefore decided that a special meeting of the Committee would be held in starting of October with a single point Agenda to discuss and finalize the draft for revision of IS 2131.

(In Consultation with the Convener of the Working Group, CED 43/WG 4 and the Chairperson of CED 43, the special meeting for finalization of IS 2131 has been scheduled on Friday, 27 September 2024 from 10:30 AM Onwards).

4.3 Draft Indian Standard for Design and Construction of Combined Piled Raft Foundations – Code of Practice [DOC : CED 43 (21409)WC]

The Committee noted that the Working Group, CED 43/WG 17 had discussed the comments received on the WC draft and noted the modified draft as attached in Annex 22 of the Agenda. The Committee provided a few minor editorial corrections in the draft and appreciated the work done and thanked the Convener and the members of

the Working Group for their contributions. The Committee requested the BIS Secretariat to send the modified drafts in for **ADOPTION** and **PRINTING** and approved the BIS Secretariat to make any other editorial corrections as may be needed for publication of the standard.

Item 5 ISSUES ARISING OUT OF THE PREVIOUS MEETING

5.1 Draft Indian Standard for Continuous Flight Auger Piles

The Committee noted that the draft for formulation of the standard has been prepared by the Working Group and decided to circulate it as **P-draft** for getting comments from the Committee members first. The Committee also authorized the Working Group to take a decision on the Comments received and provide the modified draft in the next meeting of the Committee.

5.2 Draft Indian Standard for Method for subsurface sounding for soils

The Committee noted that the draft for revision of the Part 1 and new standard on Part 4 have been prepared by the Working Group, CED 43/WG 14 and decided to circulate both drafts as **P-draft** for getting comments from the Committee members first. The Committee also authorized the Working Group to take a decision on the Comments received and provide the modified draft in the next meeting of the Committee. The Committee also requested the Working Group to provide the drafts for revision of Parts 2 and 3.

Item 6 INTERNATIONAL ACTIVITIES

The Committee noted that India is represented as P (Participating) member on the ISO/TC 182 'Geotechnics'. In order to timely provide the Comments on various drafts and other proposals received from ISO, the Committee decided to constitute a Working Group for ISO related matters. The Composition of the Working Group is as below:

Composition of the Working Group for ISO, CED 43/WG 21

SI No.	NAME OF THE ORGANISATION	REPRESENTED BY
1.	In Personal Capacity, New Delhi	Shri C. Pushpakaran (Convener)
2.	Cengrs Geotechnica Pvt Ltd, Noida	Shri Sanjay Gupta
3.	Geodynamics Ltd, Vadodara	Dr Jaykumar Shukla
4.	Indian Institute of Technology Bombay, Mumbai	Prof Deepankar Choudhury
5.	Nagadi Consultants Pvt Limited, New Delhi	Shri N. Santosh Rao

6.	In Personal Capacity, Chennai	Dr V. Balakumar
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Item 7 ANNUAL CALENDAR OF MEETINGS

In view of the Annual Calendar of meetings, the Committee decided that the next meeting of the Committee would be held on Friday, 10 January 2025 from 10:30 AM Onwards. The further details of the meeting would be shared later.

Item 8 ANY OTHER BUSINESS

8.1 The Committee noted the timelines for preparation of drafts of working groups as follows:

Working Group Number and Title	Recommendation of Committee
Working Group for Revision of IS 2911 “Design and construction of pile foundations — Code of practice” (Part 1/Sec 1 to 4), IS 2911 (Part 2), IS 2911 (Part 4) and IS 14593 “Design and construction of bored cast-in-situ piles founded on rocks — Guidelines”, CED 43/WG 3	The Committee noted that there are several provisions like bored pile, load test etc on which a consensus it to be obtained. The Committee requested the Working Group to hold meetings to discuss and give its recommendations on the way forward to the Committee in the next meeting of CED 43.
Working Group for Revision of IS 2720 Soils — Methods of test (Parts 1 to 41), CED 43/WG 5	The Committee noted the Part 1 and 2 of the series have been issued in Wide Circulation and requested the Working Group to expedite the preparation of draft for revision of other parts as well.
Working Group for Formulation of Standard for Cross-hole sonic logging of piles, CED 43/WG 9	The Committee requested the Working Group to expedite the draft document and decided to circulate the same as P-draft for getting comments from the Committee members first. The Committee also authorized the Working Group to take a decision on the Comments received and provide the modified draft in the next meeting of the Committee. BIS Secretariat was authorized to make any other editorial corrections as may be needed for the same.

Working Group for Preparation of Draft for Method for High Strain Dynamic Testing of Piles, CED 43/WG 10	The Committee requested the Working Group to expedite the draft document and decided to circulate the same as P-draft for getting comments from the Committee members first. The Committee also authorized the Working Group to take a decision on the Comments received and provide the modified draft in the next meeting of the Committee. BIS Secretariat was authorized to make any other editorial corrections as may be needed for the same.
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The Committee requested the other Working Groups to also expedite the preparation of drafts and provide the progress update in the next meeting.

8.2 The BIS Secretariat and the participants to the meeting complimented the Chairperson, Shri C. Pushpakaran for excellently conducting the meeting and providing leadership and guidance during the meeting. Shri C. Pushpakaran formally thanked all the members for their dedication and commitment towards National Standardization leading to useful deliberations and sought their continued interest in the working of the Committee.

8.3 There being no other business to transact, the meeting ended with a hearty vote of thanks to the Chair.

End of Minutes
