

**Resolutions of the Fifth meeting of the  
Panel for Soils and Foundations, CED 46:P5  
held in hybrid mode on 13 March 2024**

<b>Resolution No.</b>	<b>Resolution/Decision</b>
<b>1</b>	<p>Shri Ajay Kumar Sinha and Shri Aman Garg to represent Military Engineer Services, New Delhi.</p> <p>To write to HoD (Civil Engineering) of IIT Madras, Chennai for their fresh nomination.</p> <p>To co-opt M/s National Capital Region Transport Corporation, New Delhi on the Panel.</p> <p>To co-opt Dr Chandan Ghosh (Fuidyn–India, Bengaluru) in view of his superannuation from NIDM, New Delhi.</p> <p>Shri Mani Bhushan, NTPC Ltd to formally arrange a communication of revised nominations on the Panel.</p> <p>Shri T Madhusudhan Rao to represent BHEL as their alternate representative.</p>
<b>2</b>	<p>The following organizations to send their fresh nominations in 15 days through email to <a href="mailto:ced46@bis.gov.in">ced46@bis.gov.in</a> for BIS' records:</p> <ul style="list-style-type: none"> <li>• DDA, New Delhi</li> <li>• ITD Cementation Pvt Ltd, Mumbai</li> <li>• The Institution of Engineers (India), Kolkata</li> <li>• AFCONS Infrastructure Limited, Mumbai</li> </ul>
<b>3</b>	<p>To address the following aspects also in the revision:</p> <ul style="list-style-type: none"> <li>• Briefly address the typical contents of the Report of Geotechnical Investigation (to aid in uniformity in reporting)</li> <li>• Deep excavation related provisions considering the accident involved</li> <li>• Subsurface geotechnical investigation</li> <li>• Detailed provisions on ground improvement techniques</li> <li>• Testing on piles</li> <li>• Foundations on rocks</li> <li>• Provisions on instrumentation and observation from the foundation (post construction and during usage of a building) particularly for those housing over 600 occupants</li> </ul>

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	<ul style="list-style-type: none"> <li>• To cover all the recent developments in the new and revision of standards of CED 43</li> <li>• To include provisions regarding piled raft foundation and combined raft foundation</li> <li>• To define 'Building' considering the same may be in residential, business, educational, industrial scenario, etc.</li> <li>• Precautions regarding expansive soils and liquefiable soils for both shallow foundations and deep foundations.</li> <li>• Settlement due to urban tunnelling (<i>CBRI agreed to send the write up.</i>)</li> <li>• Aspects of Micro Piles in the Chapter of Pile foundation</li> </ul>																
4	Members to send in writing ( <b>by 01 April 2024</b> ) their inputs/comments/suggestions on the Working Draft of Part 6/Sec 2 circulated to email dated 04 March 2024.																
5	<p>Expert Groups as below were constituted to consider the inputs to be received and prepare the modifications/changes to the existing chapter and include new clauses/provisions of the Code:</p> <table border="1" data-bbox="432 1099 1331 1973"> <tbody> <tr> <td data-bbox="432 1099 884 1137">1 Scope</td> <td data-bbox="884 1099 1331 1137">BIS</td> </tr> <tr> <td data-bbox="432 1137 884 1176">2 Terminology</td> <td data-bbox="884 1137 1331 1176">Dr Aditya Singh, IGS</td> </tr> <tr> <td data-bbox="432 1176 884 1285">Clauses 3, 4 &amp; 5</td> <td data-bbox="884 1176 1331 1285">Shri Jitendra, NCRTC Shri Mani Bhushan, NTPC Shri TMS Rao, BHEL</td> </tr> <tr> <td data-bbox="432 1285 884 1435">Clause 6</td> <td data-bbox="884 1285 1331 1435">Dr Abhay Gupta, IAStructE Shri Aman Deep CSIR-CBRI Shri Manish Gupta</td> </tr> <tr> <td data-bbox="432 1435 884 1509">Clause 7</td> <td data-bbox="884 1435 1331 1509">Shri Aman Deep CSIR-CBRI</td> </tr> <tr> <td data-bbox="432 1509 884 1644">Clauses 8 to 12 <i>(to be merged as one Chapter under the title Pile foundation)</i></td> <td data-bbox="884 1509 1331 1644">Dr A. P. Singh, IGS Dr Ayothiravan, IIT Delhi Dr Aditya Singh, IGS</td> </tr> <tr> <td data-bbox="432 1644 884 1868">Clause 13</td> <td data-bbox="884 1644 1331 1868">Dr Abhay Gupta, IAStructE Shri Aman Deep CSIR-CBRI Shri Sorabh Gupta, Cengrs Geotechnica Pvt Ltd, Noida</td> </tr> <tr> <td data-bbox="432 1868 884 1973">Clause 14</td> <td data-bbox="884 1868 1331 1973">Ms Neelima Satyam, IGS M/s Keller Shri TMS Rao, BHEL</td> </tr> </tbody> </table>	1 Scope	BIS	2 Terminology	Dr Aditya Singh, IGS	Clauses 3, 4 & 5	Shri Jitendra, NCRTC Shri Mani Bhushan, NTPC Shri TMS Rao, BHEL	Clause 6	Dr Abhay Gupta, IAStructE Shri Aman Deep CSIR-CBRI Shri Manish Gupta	Clause 7	Shri Aman Deep CSIR-CBRI	Clauses 8 to 12 <i>(to be merged as one Chapter under the title Pile foundation)</i>	Dr A. P. Singh, IGS Dr Ayothiravan, IIT Delhi Dr Aditya Singh, IGS	Clause 13	Dr Abhay Gupta, IAStructE Shri Aman Deep CSIR-CBRI Shri Sorabh Gupta, Cengrs Geotechnica Pvt Ltd, Noida	Clause 14	Ms Neelima Satyam, IGS M/s Keller Shri TMS Rao, BHEL
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	New clause on Deep Excavation	Dr Abhay Gupta, IAStructE Shri Aman Deep CSIR-CBRI IGS Shri Sorabh Gupta, Cengrs Geotechnica Pvt Ltd, Noida
	New clause on Piled Raft	CSIR-CBRI Dr Dipankar Chaudhary, IITB NPCIL
	New clause on instrumentation & monitoring (preloading & post loading)	CSIR-CBRI M/s Geo Dynamics AIMIL India Shri Jaydeep Wagh, Geocon Intl Pvt Ltd
6	Next meeting shall be in physical mode in <b>May 2024</b>	
7	To issue the wide circulation of revision of this chapter by <b>October &amp; November 2024</b>	

Formal minutes of the meeting will be sent separately.

**PS: All members are encouraged to visit the BIS' Standardization Portal, <https://www.manakonline.in/MANAK/login>**

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and reset their password (using FORGOT PASSWORD) before accessing **for the first time** the interactive portal.

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