



**Outreach & Dissemination Services Office
CSIR – Central Building Research Institute
Roorkee – 247667 (UK)**

**Skill Development Training Programme on
'Safe Construction Practices in Earthquake Engineering'- Batch II
September 02-06, 2024**

Outreach & Dissemination Services at CSIR-CBRI, Roorkee, organized a five-day skill development training program on 'Safe Construction Practices in Earthquake Engineering' under the aegis of the CSIR Integrated Skill Initiative sponsored by the Himachal Pradesh State Disaster Management Authority (HPSDMA), took place from September 02-06, 2024. This was the second batch of training for Junior Engineers (JE) and Technical Assistants (TA) from Panchayati Raj & Rural works department of H.P., with a total of 38 participants attending.

The program commenced with a welcome address by the Program Coordinator, Er. Ashish Pippal, who greeted the participants and guests on the dais, including Ar. S.K. Negi, Dr. Hemlata, Er. Mickey Dalbehera, Dr. H.K. Jain, Er. Ashish Kapoor, and other colleagues and staff members. The focus of the program was on promoting safe construction practices in the rural regions of Himachal Pradesh to enhance earthquake safety.

Er. S.K. Negi inaugurated the program with a warm welcome to the participants and provided an overview of the program. He highlighted CBRI's efforts over the past 15-16 years in collaboration with Himachal Pradesh to promote safe construction in rural areas. Dr. H.K. Jain spoke about the importance of constructing safe and earthquake-resistant buildings, particularly in this region. Er. Ashish Kapoor emphasized the need for safe construction practices in the rural areas of Himachal Pradesh. Er. Mickey Dalbehera concluded the inauguration with a vote of thanks.

The program featured a total of 12 technical sessions delivered by CBRI scientists and external experts in their respective fields. These included innovative technologies for rural housing, building planning and layout, and building bye-laws specific to Himachal Pradesh. The participants were also trained in geotechnical engineering aspects related to building foundations for various geo-climatic conditions and the significance of traditional construction systems in the region. The training further delved into structural design basics, codal provisions, quality assurance and control, and the design of earthquake-resistant buildings, supplemented with relevant case studies.

In addition to the theoretical knowledge, the program introduced participants to advanced tools and techniques such as the use of IoT in disaster resiliency and the importance of building components/services, particularly walling and roofing techniques. The training also provided practical insights into the preparation of DPR and included

technical visits to the CBRI laboratories and the Rural Technology Park. Here, participants observed demonstrations of earthquake safety features, pre-cast components, and construction techniques in the demonstration construction park.

The five-day training program ended with a feedback session, an open discussion, certificate distribution, and a valedictory ceremony. In the final session, participants had the chance to reflect on their experiences and share the knowledge they acquired during the training. The program successfully equipped Junior Engineers and Technical Assistants with the vital skills required to support the creation of safer infrastructure in Himachal Pradesh.

List of Participants

S. No.	Name, Designation & Address	Mobile No.
1.	Sh. Rajesh Sharma, JE BDO Ghumarwin, Bilaspur, (HP)	7018100725
2.	Sh. Rahul Kumar, TA BDO Karsog, Mandi (HP)	9817372223
3.	Sh. Devi Ram, TA BDO Balichowki, Mandi (HP)	9418066658
4.	Sh. Pankaj Kumar, TA BDO Balichowki, Mandi (HP)	7018242663
5.	Sh. Deepak Thakur, TA BDO Nadaun, Hamirpur (HP)	9418507661
6.	Sh. Parveen Kumar, TA BDO Nadaun, Hamirpur (HP)	9418115818
7.	Sh. Sanjeev Kumar Dhiman, TA BDO Nadaun, Hamirpur (HP)	9816743254
8.	Sh. Marshal, TA BDO Dharmpur, Solan (HP)	8700813044
9.	Sh. Vivek Gandhi, TA BDO Kunihar, Solan (HP)	7018188051
10.	Sh. Harsh Kumar Lath, TA BDO Amb, Una (HP)	9418490822
11.	Sh. Sarvjeet Singh, TA BDO Amb, Una (HP)	8894205240
12.	Sh. Vikas, TA BDO Lahaul Spiti (HP)	7018120006
13.	Sh. Kuldeep, TA BDO Lahaul Spiti (HP)	8219871199
14.	Sh. Vijay Kumar, TA BDO Lahaul Spiti (HP)	9459992319
15.	Sh. Sham Lal, JE	9418360184

	BDO Pangi (HP)	
16.	Sh. Rangeel Singh, TA BDO Paonta Sahib, Sirmour (HP)	8219835750
17.	Sh. Raghubir Singh, TA BDO Paonta Sahib, Sirmour (HP)	9805164377
18.	Sh. Akshay Kumar Attri, JE BDO Badoh (HP)	9418161424
19.	Sh. Bali Ram, TA BDO Kalpa, Kinnaur (HP)	8628884404
20.	Sh. Krishan Gopal, TA BDO Nichar, Kinnaur (HP)	7807217737
21.	Sh. Satish Kumar, TA BDO Rampur, Shimla (HP)	9816444732
22.	Sh. Sant Ram, TA BDO Kupvi, Shimla (HP)	9816866604
23.	Sh. Manohar Lal Thakur (JE) BDO Banjar, Kullu (HP)	9418729026
24.	Sh. Shishi Ram, JE BDO Rampur, Shimla (HP)	8219313550
25.	Sh. Dev Raj, TA BDO Banjar, Shimla (HP)	8219891669
26.	Sh. Suresh Kumar, TA BDO Chamba (HP)	7018372415
27.	Sh. Pardeep kaushal, JE DRDA Bilaspur (HP)	7018320030
28.	Sh. Sudarshan Kumar, JE DRDA Hamirpur (HP)	7018542696
29.	Sh. Rakesh Thakur, JE DRDA Shimla (HP)	9816183575
30.	Sh. Mohinder Singh, JE DRDA Shimla (HP)	6230007172
31.	Sh. Desh Raj, JE BDO Bhijri, Hamirpur (HP)	7018125775
32.	Sh. Rajiv Kumar, JE BDO Indora, Kangra (HP)	9816702931
33.	Sh. Paras Ram, JE BDO Seraj, Mandi (HP)	8219968838
34.	Sh. Ravinder Kumar, JE BDO Fatehpur, Kangra (HP)	9816653585
35.	Sh. Vidya Pal, TA BDO Kinnaur (HP)	6230467955

36.	Sh. Manish Thakur, JE DRDA Kullu (HP)	9817045816
37.	Ms. Sapna Thakur, TA BDO Jhandutta, Bilaspur (HP)	8219889715
38.	Sh. Raunak Negi, TA BDO Chhohara, Shimla (HP)	9805235922

Glimpses of Programme



Inauguration Function



Technical Sessions





R&D Labs & Demo Park Visit



Certificate Distribution

Course Content

 <p style="text-align: center;"> Training Programme for “Safe Construction Practices in Earthquake Engineering” Sponsored by: Himachal Pradesh State Disaster Management Authority (HPSDMA) September 02-06, 2024 Training Schedule </p> 					
<i>Hours</i>	<i>02.09.2024</i>	<i>03.09.2024</i>	<i>04.09.2024</i>	<i>05.09.2024</i>	<i>06.09.2024</i>
9:30 AM	Registration & Inauguration – <i>Director, CBRI</i>	<i>Recapitulation of 1st Day</i>	<i>Recapitulation of 2nd Day</i>	<i>Recapitulation of 3rd Day</i>	<i>Recapitulation of 4th Day</i>
10:00-11:00		Geotechnical Engineering Aspects in Building Foundations for different Geo-Climatic Conditions <i>Dr. Anindya Pain</i>	Quality Assurance & Control <i>Er. H.K. Jain</i>	Use of IoT in Disaster Resiliency <i>Er. Chandrabhan Patel</i>	DPR Preparation <i>Er. I.A. Siddiqui</i>
11:00	<i>High Tea Break</i>				
11:15-12:15	Innovative Technologies for Rural Housing – An Overview <i>Ar. S.K. Negi</i>	Importance of Traditional Construction systems in H.P. <i>Dr. P.K. Das</i>	Design of Earthquake-Resistant Buildings with Case Studies <i>Er. Ajay Chourasia</i>	Building Components/Services – Walling & Roofing Techniques <i>Er. H.K. Jain</i>	DPR Preparation <i>Er. I.A. Siddiqui</i>
12:15-13:15	Building Planning & Layout <i>Ar. Naveen Nishant</i>				Feedback, Discussion & Valediction
13:15-14:15	<i>Lunch Break</i>				
14:15-15:15	Building Bye-Laws for Himachal Pradesh <i>Ar. S.K. Negi</i>	Structural Designs of Buildings – Basic Concepts and Codal Provisions <i>Dr. Kishor S. Kulkarni</i>	Information & Discussion about KAVACH <i>Er. Ashish Pippal</i>	Information & Discussion about KAVACH <i>Er. Ashish Pippal</i>	*****
15:15	<i>High Tea Break</i>				
15:45-17:30	Visit to Laboratories & Rural Technology Park <i>Er. Namita</i>	Demonstration of EQ safety Features	Demonstration of Pre Cast Components	Visit to Demonstration Construction Park <i>Er. Namita</i>	*****