

Highlights of Five Day FDP cum Workshop on “**Water Resources Management & Fluvial Hydraulics in Steep Mountain Streams**” held from March 27th to March 31st, 2024 in which the first three days of the FDP was co-sponsored by ADK instruments and the last two days were co-sponsored by CRG SERB Govt of India Project Under SSR Activity (CRG/2021/002119).

Department of Civil Engineering, Dr B R Ambedkar National Institute of Technology hosted Five Day FDP cum Workshop on “**Water Resources Management & Fluvial Hydraulics in Steep Mountain Streams**” held from March 27th to March 31st, 2024 in which the first three days of the FDP was co-sponsored by ADK instruments that was conducted in online mode and the last two days were co-sponsored by CRG SERB Govt of India Project under SSR Activity (CRG/2021/002119) that was conducted in hybrid mode.

The objective of this FDP cum workshop is to empower faculty members from colleges and universities to explore hydraulics in Steep Mountain Streams and to collect field data using advanced, sophisticated instruments as mentioned Acoustic Doppler Velocimeter (ADV) Ultrasonic Ranging System (URS) These technologies are essential tools in Hydraulic Engineering and fluid mechanics, enabling precise measurements and analysis crucial for understanding and managing steep stream environments.

The experts were **Dr. P L Patel** Professor (HAG) in the Civil Engineering Department at SVNIT Surat, **Dr. Ashutosh Sharma**, Assistant Professor in the Civil Engineering Department at IIT Roorkee, **Dr Anurag Sharma**, Assistant Professor in the Civil Engineering Department at NIT Rourkela, **Dr. Manish Pandey**, Assistant Professor in the Civil Engineering Department at IIT Kharagpur, **Dr Ray Singh Meena**, Assistant Professor in the Civil Engineering Department at NIT Hamirpur, and **Dr. Abhijit D Lade** Assistant Professor in the Civil Engineering Department at VNIT Nagpur. The workshop was chaired by **Dr Arvind K Agnihotri**, acting Head of the Department, and coordinated by **Dr Mahesh Patel** and **Dr Kanish Kapoor**.

The FDP Cum workshop was inaugurated by Dr Arvind K Agnihotri acting Head of the Department and experts in the presence of the faculty of the Civil Engineering Department. In addition, Patron and Chief Coordinator Prof. Binod Kumar Kanaujia, Director, NITJ, has given his blessings to conduct this program.

The experts covered an in-depth exploration of the principles and practices related to Water Resources Management and Fluvial Hydraulics in Steep Mountain Streams. Water resources management for sustainability and resilience & introduction of steep stream hydraulics & techniques for field data collection, analysis and application.

In addition to the above the experts have shared their practical experiences and the challenges which they have faced during their careers. The total registration in the FDP Cum workshop exceeded more than **250+** which comprised faculty members, people from the industry, research scholars, and postgraduate students, who participated in large numbers from all over India. In addition to this two-day Workshop co-sponsored by CRG SERB Govt of India, 25 faculty members from nearby institutions were invited under the SERB Scientific Social

Responsibility policy. During the workshop, a field visit was conducted to the Sutlej River and the participants were given hands-on training and were trained using modern sophisticated hydraulic instruments like ADV, and URS, and a brainstorming discussion took place between experts and faculty members over field data collection and Steep channel Hydraulics to get an insight into new technology and their sustainability in practical life.

At the end of the FDP cum workshop the certificates to the participants were sent by email who have submitted the feedback form and attended most of the sessions. **Dr Mahesh Patel and Dr Kanish Kapoor** thanked the participants for attending this workshop. They also thanked the organizing team, Department of Civil Engineering faculty members, students coordinators, and staff for making this event successful.

There are the following glimpses during the online workshop

The screenshot shows a Google Meet presentation slide with the following content:

- Top Left:** A photograph of a channel bed with a stepped profile.
- Top Right:** A table of material properties for different mixtures.
- Bottom Left:** A sieve analysis graph showing Percent finer (by weight) vs. Sieve Size (mm) for mixtures SD2.5, SD3.0, SD3.5, SD4.0, and SD4.5.
- Bottom Right:** A photograph of a channel bed with a circular marker.

Mixture Name (Source of Data)	B	M	σ_x	σ_y (mm)
SD2.5 (Present Study)	0.91	0.24	2.41	3.82
SD3.0 (Present Study)	1.15	0.15	2.99	3.96
SD3.5 (Present Study)	1.82	0.094	3.48	3.46
SD4.0 (Present Study)	2.38	0.073	3.90	3.33
SD4.5 (Present Study)	2.74	0.052	4.51	3.05

The sieve analysis graph plots Percent finer (by weight) on the y-axis (0 to 100) against Sieve Size (mm) on the x-axis (75 to 4.75). Five curves represent mixtures SD2.5, SD3.0, SD3.5, SD4.0, and SD4.5, showing that as the sieve size decreases, the percent finer increases for all mixtures.

Meet - mqj-hszb-diz

meet.google.com/mqj-hszb-diz?authuser=0

Apps Gmail YouTube Maps IAHR google scholar - Go... Scopus preview - Sc... ERIC - Education Re... Academia.edu - Sha... Dr. B.R. Ambedkar... Latest News From K... Mendley - Referen...

Dr. Ray Singh Meena (Presenting)

Study Area

The figure displays three maps related to the study area. The top-left map shows the location of the study area within India. The top-right map shows the location within Himachal Pradesh. The bottom map is a detailed topographic map of the Larji Basin, with a legend indicating elevation values ranging from a high of 21140 to a low of 1220. The basin is outlined in black, and the elevation is color-coded from green (low) to red (high).

11:04 AM | Five Days Faculty Development Program cum Wor...

12°C Light rain

Meet - mqj-hszb-diz

meet.google.com/mqj-hszb-diz?authuser=0

Apps Gmail YouTube Maps IAHR google scholar - Go... Scopus preview - Sc... ERIC - Education Re... Academia.edu - Sha... Dr. B.R. Ambedkar... Latest News From K... Mendley - Referen...

The video thumbnails show the following participants:

- Mohd Aamir (Muted)
- SHAILZA SHARMA (Muted)
- Dr. Mahesh Patel (Active)
- Aditya Dubey (Muted)
- RAHUL DIWAKAR (Muted)
- Manish Pandey (Active)
- Ajaz Ahmad Mir (Muted)
- 51 others (Muted)
- SHAKEEL AHMAD RATHER (Muted)

4:01 PM | Five Days Faculty Development Program cum Work...

63°

Meet - mqg-hszb-diz

PREM LAL PATEL (Presenting)

Experimental Set-up for Data Collection

3:37 PM | Five Days Faculty Development Program cum Work...

Mr. Aditya Dubey, Hemamalini C.G, AJAZ AHMAD MIR, Deepak Sharma, Ajit Mathan, tarun sharma, 59 others, SHAKEEL AHMAD ...

meet.google.com/mqg-hszb-diz

Ashutosh Sharma (Presenting)

10:28 AM | Five Days Faculty Development Program cum Wo...

15°C Mostly cloudy

1028 27-03-2024

People

- NOOHI KHAN
- Prashant Sharma
- Praveen Singh
- Ranjeet Verma
- Ravi Gedam
- ravinder sandhu
- Safullah
- Safwan Kazi 20CE090
- Saumya Verma







