



Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Workshop Report on RIVER DISCHARGE ESTIMATION USING NON- TRADITIONAL TECHNIQUES


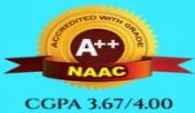
During from April 15, 2025 to April 19, 2025

Venue: Computer Lab, CED, SKITM&G, Jaipur

Date, Time and Venue of the event

Sr.No.	Date	Time	Venue	TOPICS
1	15-04-25 to 19-04-25	11:45 AM -02:45PM	Computer Lab, Ground Floor Civil Block	River discharge estimation Cross sectional area of river using EXCEL

NOTICE OF THE EVENT

CGPA 3.67/4.00

**Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur**
(Accredited with A++ Grade by NAAC)



Department of Civil Engineering
is Organizing

WORKSHOP ON

**RIVER DISCHARGE ESTIMATION BASED ON
NON-TRADITIONAL TECHNIQUES**

Objective of Workshop

- ✦ Understanding of Entropy Theory
- ✦ Understanding of Principle of Maximum Entropy
- ✦ Discharge Estimation based on Single point measurement
- ✦ Discharge Estimation during Night time flood events





**VENUE :COMPUTER LAB,GROUND FLOOR,
CIVIL BLOCK**

TIMING : 11:45 AM - 2:45 PM

DATE : 15 April - 19 April , 2025

FACULTY COORDINATOR
Dr. POOJA JAIN : 9694909018
Dr. J K VYAS : 9828521937



STUDENT COORDINATOR
HIMANSHU SAUGAT : 7878935763
BHUMIKA YOGI : 8003997884

FACULTY COORDINATOR

Dr. POOJA JAIN

Dr. J.K.VYAS

STUDENT COORDINATOR

HIMANSHU SAUGAT

BHUMIKA YOGI

Objective of the event:-


- Understanding of Entropy Theory
- Understanding of Principle of Maximum Entropy
- Discharge Estimation based on Single point measurement
- Discharge Estimation during Night time flood events

Details/List of student participants:-

Sr. No.	Name	Year	Branch
1	Aditya Garg	II-year	CE
2	Aman Kumar	II-year	CE
3	Anushka Meena	II-year	CE
4	Anushka Sharma	II-year	CE
5	Bhumika Yogi	II-year	CE
6	Chhaya	II-year	CE
7	Diksha	II-year	CE
8	Divyansh Sharma	II-year	CE
9	Garv Galhotra	II-year	CE
10	Gaurav Jangir	II-year	CE
11	Govind Choudhary	II-year	CE
12	Hariom Saraswat	II-year	CE
13	Harshini Gupta	II-year	CE
14	Harsh Badgurjar	II-year	CE
15	Himanshu Saugat	II-year	CE
16	Karan Singh	II-year	CE
17	Keshav Pandit	II-year	CE
18	Kuldeep Gurjar	II-year	CE
19	Kunal Saugan	II-year	CE
20	Lakshya Foujdar	II-year	CE
21	Lavish Vijay	II-year	CE
22	Manish Buri	II-year	CE
23	Meena Nitin Kumar	II-year	CE
24	Rawal Singh Chouhan	II-year	CE
25	Dhruv Sehgal	II-year	CE
26	Momeen Khan	II-year	CE
27	Mohd Tabish Siddiqui	II-year	CE
28	Puneet Kumar	II-year	CE

29	Pushpendra Singh Tanwar	II-year	CE
30	Rameshwar	II-year	CE
31	Shashank Jangid	II-year	CE
32	Shunham Aloria	II-year	CE
33	Siddharth Lawaniya	II-year	CE
34	Sumit Bharti	II-year	CE
35	Sumit Bharti	II-year	CE
36	Sumit Meena	II-year	CE
37	Tanishq Gupta	II-year	CE
38	Vash Singh	II-year	CE
39	Yuvraj Singh Jadaun	II-year	CE
40	Tanul Badliwal	II-year	CE

Attendance sheet of participants

<div>  <div> Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur DEPARTMENT OF CIVIL ENGINEERING WORKSHOP ON "RIVER DISCHARGE ESTIMATION based on Non-Traditional Techniques" (15 April to 19 April, 2025) ATTENDANCE SHEET & PARTICIPANTS LIST APPLICABLE FOR 4th SEMESTER STUDENTS </div> </div>								
Sl. No.	Name	Rtn Roll No	Section	15-04-2025	16-04-2025	17-04-2025	18-04-2025	19-04-2025
1	Aditya garg	23ESKCE005	A	<u>Aditya</u>	<u>Aditya</u>	<u>Aditya</u>	<u>Aditya</u>	<u>Aditya</u>
2	Anam Kumar	23ESKCE012	A					
3	Anushka meena	23ESKCE018	A	<u>Anushka</u>	<u>Anushka</u>	<u>Anushka</u>	AB	<u>Anushka</u>
4	Anushka Sharma	23ESKCE019	A	<u>Anushka</u>	<u>Anushka</u>	<u>Anushka</u>	<u>Anushka</u>	<u>Anushka</u>
5	Bhumika Yogi	23ESKCE021	A	<u>Bhumika</u>	<u>Bhumika</u>	<u>Bhumika</u>	AB	<u>Bhumika</u>
6	Chhaya	23ESKCE022	A	<u>Chhaya</u>	<u>Chhaya</u>	<u>Chhaya</u>	AB	<u>Chhaya</u>
7	Diksha	23ESKCE027	A	<u>Diksha</u>	<u>Diksha</u>	<u>Diksha</u>	AB	<u>Diksha</u>
8	Divyansh Sharma	23ESKCE031	A	<u>Divyansh</u>	<u>Divyansh</u>	<u>Divyansh</u>	<u>Divyansh</u>	AB
9	Garv Galhotra	23ESKCE032	A	<u>Garv</u>	<u>Garv</u>	<u>Garv</u>	AB	AB
10	Gaurav jangir	23ESKCE033	A	<u>Gaurav</u>	<u>Gaurav</u>	<u>Gaurav</u>	<u>Gaurav</u>	<u>Gaurav</u>
11	Govind choudhary	23ESKCE034	A	<u>Govind</u>	<u>Govind</u>	<u>Govind</u>	<u>Govind</u>	<u>Govind</u>
12	Harim sarswat	23ESKCE036	A	<u>Harim</u>	<u>Harim</u>	<u>Harim</u>	AB	<u>Harim</u>
13	Harsh b. d. gurjar	23ESKCE037	A	<u>Harsh</u>	<u>Harsh</u>	<u>Harsh</u>	<u>Harsh</u>	<u>Harsh</u>
14	Harshini Gupta	23ESKCE038	A	<u>Harshini</u>	<u>Harshini</u>	<u>Harshini</u>	<u>Harshini</u>	<u>Harshini</u>
15	Himanshu Saini	23ESKCE042	A	<u>Himanshu</u>	<u>Himanshu</u>	<u>Himanshu</u>	<u>Himanshu</u>	AB
16	Himanshu Saugat	23ESKCE043	A	<u>Himanshu</u>	<u>Himanshu</u>	<u>Himanshu</u>	<u>Himanshu</u>	<u>Himanshu</u>
17	Karan Singh	23ESKCE050	A	<u>Karan</u>	<u>Karan</u>	<u>Karan</u>	<u>Karan</u>	<u>Karan</u>
18	Keshav Pandit	23ESKCE051	A					
19	Kuldeep Gurjar	23ESKCE052	A	<u>Kuldeep</u>	<u>Kuldeep</u>	<u>Kuldeep</u>	AB	<u>Kuldeep</u>
20	Kunal saugan	23ESKCE053	A					
21	Lakshya Foujdar	23ESKCE054	A	<u>Lakshya</u>	<u>Lakshya</u>	<u>Lakshya</u>	AB	<u>Lakshya</u>
22	Lavish Vijay	23ESKCE055	A	<u>Lavish</u>	<u>Lavish</u>	<u>Lavish</u>	<u>Lavish</u>	<u>Lavish</u>
23	Manish Buri	23ESKCE059	A	<u>Manish</u>	<u>Manish</u>	<u>Manish</u>	<u>Manish</u>	<u>Manish</u>
24	Meena nitinkumar	23eske064	A	<u>Nitin</u>	<u>Nitin</u>	<u>Nitin</u>	AB	AB
25	Rawal Singh Chouhan	23ESKCE092	B	<u>Rawal</u>	<u>Rawal</u>	<u>Rawal</u>	<u>Rawal</u>	AB
26	Dhruv sehgal	23ESKCE026	A	<u>Dhruv</u>	<u>Dhruv</u>	<u>Dhruv</u>	AB	AB



Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

DEPARTMENT OF CIVIL ENGINEERING

WORKSHOP ON "RIVER DISCHARGE ESTIMATION based on Non-Traditional Techniques"

(15 April to 19 April, 2025)

ATTENDANCE SHEET & PARTICIPANTS LIST APPLICABLE FOR 4th SEMESTER STUDENTS

Sl. No.	Name	Rtu Roll No	Section	15-04-2025	16-04-2025	17-04-2025	18-04-2025	19-04-2025
1	MOMEEN KHAN	23ESKCE065	B	<u>Momeen</u>	<u>Momeen</u>	<u>Momeen</u>	<u>AB</u>	<u>Momeen</u>
2	MOHD TABISH SIDDIQUI	23ESKCE067	B	<u>Tabish</u>	<u>Tabish</u>	<u>Tabish</u>	<u>Tabish</u>	<u>Tabish</u>
3	NHAL SAXENA	23ESKCE070	B	*				*
4	PUNEET KUMAR SULANIYA	23ESKCE084	B	<u>Puneet</u>	<u>Puneet</u>	<u>Puneet</u>	<u>AB</u>	<u>AB</u>
5	PUSHPENDRA SINGH TANWAR	23ESKCE085	B	<u>Pushpendra</u>	<u>Pushpendra</u>	<u>Pushpendra</u>	<u>AB</u>	<u>AB</u>
6	RAMESHWAR	23ESKCE090	B	<u>Rameshwar</u>	<u>Rameshwar</u>	<u>Rameshwar</u>	<u>Rameshwar</u>	<u>AB</u>
7	SHASHANK JANGID	23ESKCE102	B	<u>Shashank</u>	<u>Shashank</u>	<u>Shashank</u>	<u>Shashank</u>	<u>Shashank</u>
8	SHUBHAM ALORIA	23ESKCE104	B	<u>Shubham</u>	<u>Shubham</u>	<u>Shubham</u>	<u>Shubham</u>	<u>Shubham</u>
9	SIDDHARTH LAWANIYA	23ESKCE107	B	<u>Siddharth</u>	<u>Siddharth</u>	<u>Siddharth</u>	<u>Siddharth</u>	<u>Siddharth</u>
10	SUMIT BHARTI	23ESKCE109	B	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>
11	SUMIT MEENA	23ESKCE111	B	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>Sumit</u>	<u>AB</u>
12	TANISHQ GUPTA	23ESKCE113	B	<u>Tanishq</u>	<u>Tanishq</u>	<u>Tanishq</u>	<u>Tanishq</u>	<u>Tanishq</u>
13	YASH SINGH	23ESKCE121	B	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>	<u>Yash</u>
14	YIVRAJ SINGH JADAUN	23ESKCE122	B	<u>Yivraj</u>	<u>Yivraj</u>	<u>Yivraj</u>	<u>Yivraj</u>	<u>Yivraj</u>
15	TANUL BADIWAL	24ESKCE201	B	<u>Tanul</u>	<u>Tanul</u>	<u>AB</u>	<u>Tanul</u>	<u>Tanul</u>

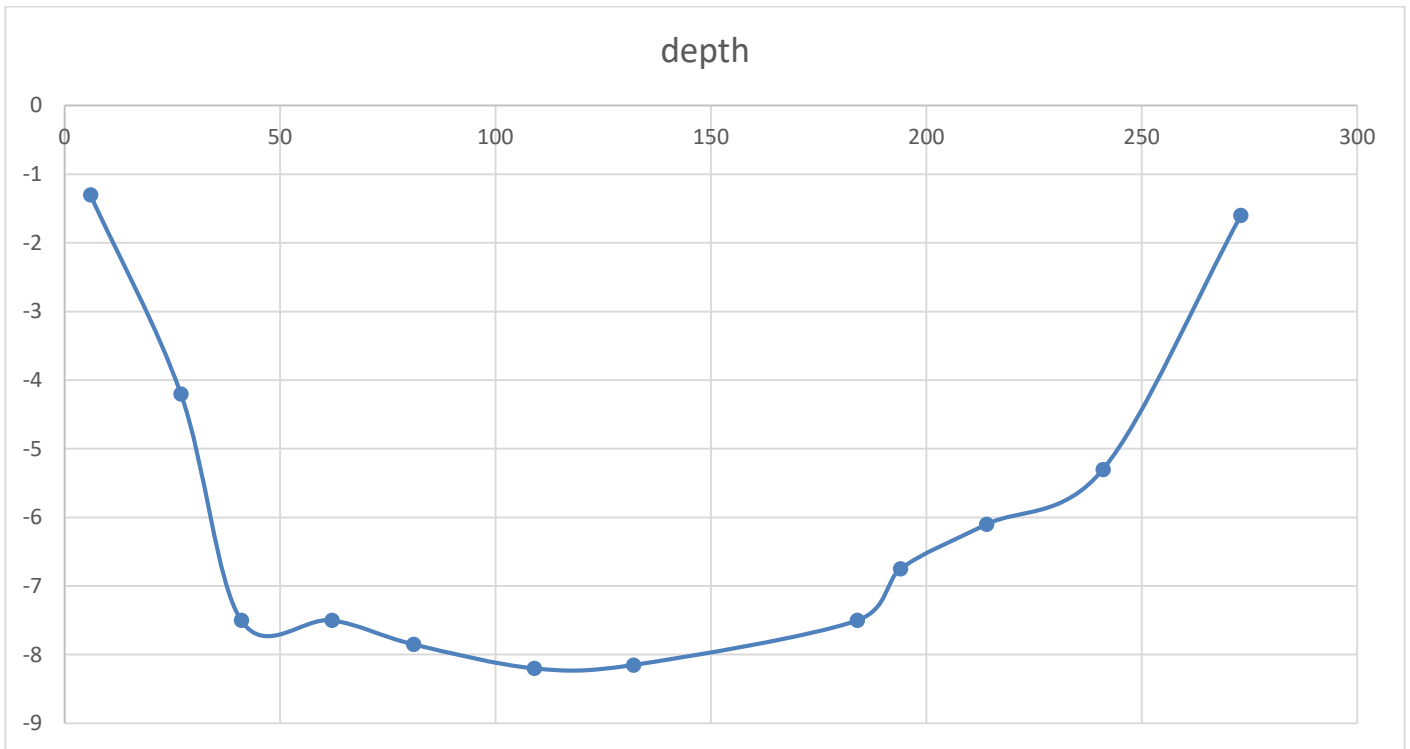
J.K.V.
Dr. J. K. Vyas

Pooja
Dr. Pooja Jain

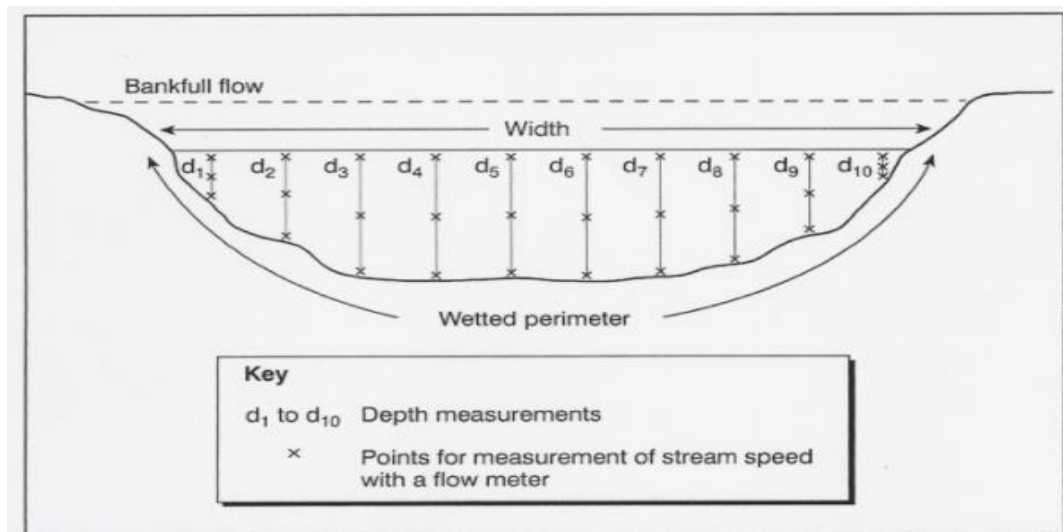
TOPICS COVERED IN THE WORKSHOP

Cross sectional area of river –Drawn the cross sectional area of river using the given data in excel

width	6	27	41	62	81	109	132	184	194	214	241	273
depth	-1.3	-4.2	-7.5	-7.5	-7.85	-8.2	-8.15	-7.5	-6.75	-6.1	-5.3	-1.6

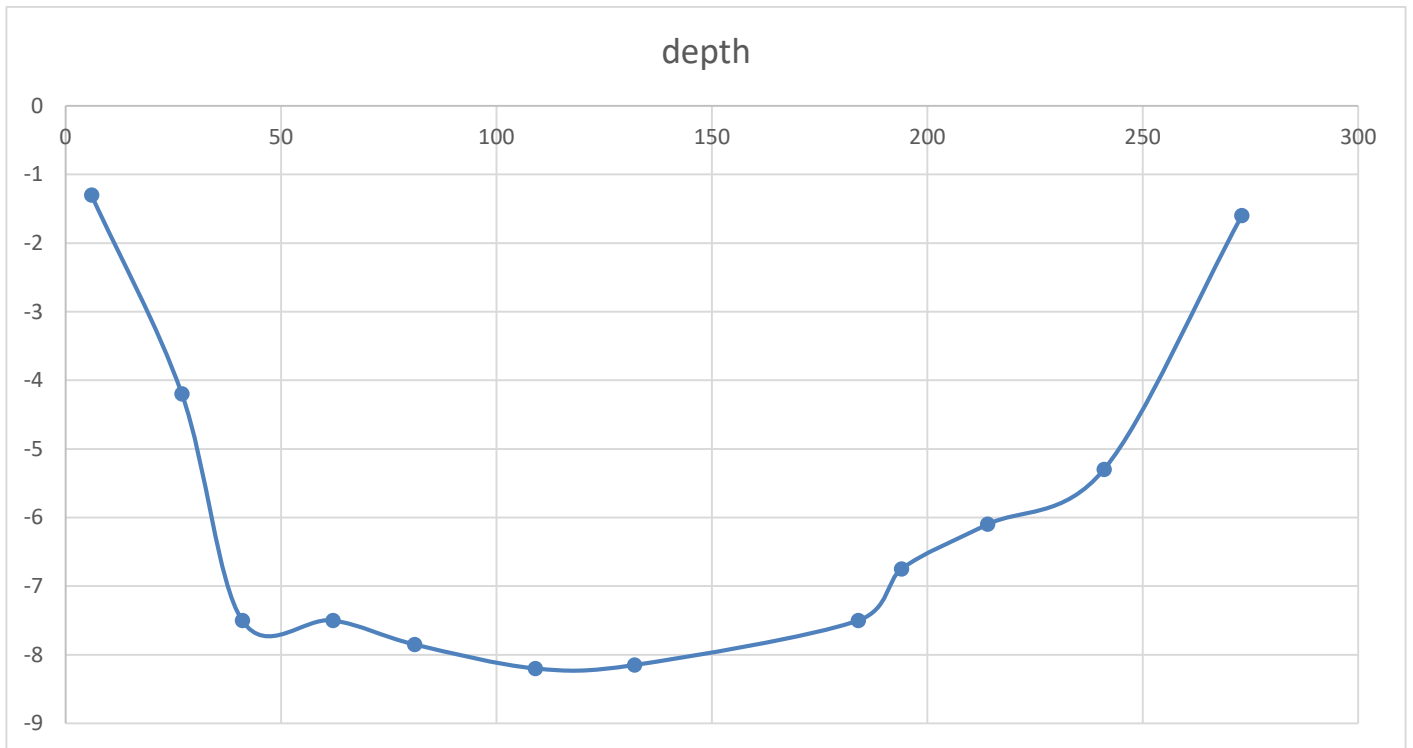


Po river numerical





- Using the depth and width of river we can make the cross section of the river in excel
- This was one of the illustrated example



width	6	27	41	62	81	109	132	184	194	214	241	273
depth	-1.3	-4.2	-7.5	-7.5	-7.85	-8.2	-8.15	-7.5	-6.75	-6.1	-5.3	-1.6




POSTER OF THE WORKSHOP (BY STUDENTS):



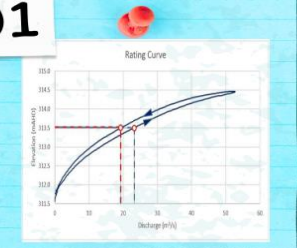
Swami Keshvanand Institute of Technology,
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HYDRAULICS WORKSHOP




01 Workshop Overview



The workshop commenced with an introduction to rivers, highlighting their importance in the water cycle, along with their characteristics and classification.


Participants explored river morphology, flow dynamics, and the vital role of rivers in irrigation, hydropower, and ecological systems.

02 Excel Cross-Sections



On the second day, participants were taught how to draw a river's cross-section using field measurements. They observed and recorded key parameters such as river width, depth at various points, and the shape of the riverbed to create an accurate cross-sectional diagram.


03 Velocity-Area Analysis



Participants applied traditional methods such as current meter readings at 0.6d, to calculate the river's mean velocity:

Using the formula $Q = A \times V$


04 Velocity-Index Analysis



On the fourth day, participants were introduced to the velocity index method, which involves approximating velocity at surface multiplying it by 0.85. This is a much faster method and used nowadays.

An introduction was also given on Gantt Chart and its importance.

05 Applied Learning



The final day included an examination to assess participants' understanding of the concepts and techniques covered throughout the workshop.

The examination consisted of both theoretical and practical components, ensuring a comprehensive evaluation of their knowledge and skill.



Hydraulic workshop

5 DAYS WORKSHOP FOR SECTION A

Day 1: Introduction of River

The workshop began with an introduction to rivers, including their importance in the water cycle, characteristics, and classification. Participants learned about river morphology, flow dynamics, and the role of rivers in irrigation, hydropower, and ecology.

Day 2: DRAW the Cross Section of River

On the second day, participants were taught how to draw the cross-section of a river using field measurements. They observed and recorded parameters such as river width, depth at various points, and shape of the riverbed to prepare an accurate cross-sectional diagram.

Day 3: Calculation of Mean Velocity and River Discharge (Traditional Method)

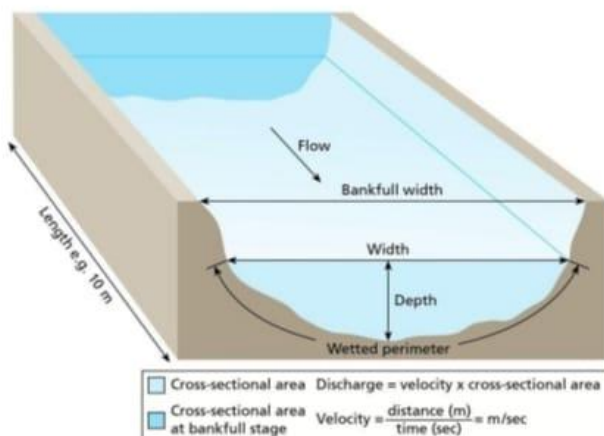
Participants used traditional methods like float technique and current meter readings to calculate the river's mean velocity. Using the formula $Q = A \times V$ (where Q = discharge, A = area, V = velocity), they calculated the river discharge.

Day 4: Calculation Using Velocity Index Method

On the fourth day, the velocity index method was introduced. This method involves measuring velocity at certain depths (e.g. $0.6D$) and using the average to estimate mean velocity more accurately. Participants then recalculated discharge using this improved method.

Day 5: Examination

The final day consisted of an examination to assess participants' understanding of the concepts and techniques learned throughout the workshop. It included both theoretical and practical components to ensure comprehensive evaluation.



Photos of the event

DAY 1



DAY 2



DAY 3



DAY 4



DAY 5

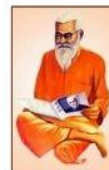


CERTIFICATES FORMAT



5 – Day Student Workshop on

River Discharge Estimation Based ON Non-Traditional Technique



Organised by

Department of Civil Engineering

Swami Keshvanand Institute of Technology, Management & Gramothan (SKIT), Jaipur

Certificate of Participation

This is to certify _____ that has successfully participated in 5 -
Day Student Workshop on “River Discharge Estimation based on Non-Traditional Technique” held from
April 15 to 19 , 2024 at Swami Keshvanand Institute of Technology, Management and Gramothan (SKIT),
Jaipur.

Prof. D. K. Sharma
HOD

Dr. J K Vyas
Coordinator

Dr. Pooja Jain
Co- Coordinator

NEWS OF THE EVENT:

एसकेआईटी में पांच दिवसीय छात्र केंद्रित कार्यशाला का हुआ सफलतापूर्वक आयोजन



(शुभ लहर तरंग नेटवर्क) जयपुर (श्रीराम इंदौरिया)। स्वामी केशवानंद इंस्टीट्यूट ऑफ टेक्नोलॉजी, मैनेजमेंट एंड ग्रामोथान (एसकेआईटी), जयपुर के सिविल इंजीनियरिंग विभाग ने 'रिवर डिस्चार्ज एस्टीमेशन यूजिंग नॉन ट्रेडिशनल टेक्नीक' पर पांच दिवसीय छात्र केंद्रित कार्यशाला का सफलतापूर्वक आयोजन किया गया। डॉ.जितेन्द्र कुमार व्यास और

डॉ.पूजा जैन ने नवीनतम नदी निर्वहन आकलन तकनीकों पर विशेषज्ञ व्याख्यान दिया। कार्यशाला के अंतिम दिन विद्यार्थियों ने कार्यशाला पर अपने विचार प्रोफेसर डीके शर्मा (विभागाध्यक्ष सिविल इंजीनियरिंग एसकेआईटी) के समक्ष प्रस्तुत किए। अंत में डॉ.डीके शर्मा ने छात्रों को उनके उज्ज्वल भविष्य के लिए शुभकामनाएं दी।

Students Coordinator:

1. Bhumika Yogi
2. Himanshu Saugat

Faculty Coordinator:

1. Dr. Jitendra K Vyas (8788359115) (Convener)
2. Dr. Pooja Jain (9694909018) (Organising Secretary)