



**Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur**



**A
Report
on
Five-day Student Workshop
“Advanced Geotechnical Testing in Laboratory and
Field”
held
on
02nd – 06th April 2024**

Organized by:

Department of Civil Engineering, SKIT M&G, Jaipur



**SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN JAIPUR-302017**

DEPARTMENT OF CIVIL ENGINEERING

Ref. : SKIT/CE/2023-24 / 1663

14/03/2024

NOTICE

The student workshop for third year B. Tech. Civil Engineering students on "Advanced Geotechnical Testing in Laboratory and Field" is scheduled from April 02, 2024 to April 06, 2024.

Dr. Pooja Gupta

Event Co-ordinator

Dr. Bharathi M.

Organising Secretary

Prof. D.K. Sharma

HoD

Copy to:

- i. Director (Academics)
- ii. Principal
- iii. Dean
- iv. All Faculty Members of CE
- v. All Notice Board
- vi. NBA/ NAAC File

**Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur**



**Department of Civil
Engineering**



**Five Day Student Workshop
on
Advanced Geotechnical Testing in
Laboratory and Field
(April 02 – 06, 2024)**

HIGHLIGHTS

**Shear Strength Test
Standard Penetration Test
Visit to Landmark Material Testing and
Research Pvt. Ltd.**

**Only 25 seats. 80% attendance in the Workshop is
Mandatory to receive Completion Certificate.**

Faculty Coordinators:

Dr. Bharathi M. (90018 02752)

Dr. Pooja Gupta (98288 89752)

Technical Assistant:

Mr. Suresh Kumar Yadav

Join us at





SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN, JAIPUR-302017

DEPARTMENT OF CIVIL ENGINEERING

01.04.2024

The Principal

SKITM&G

Jaipur

Sub: Availing Bus Facility for students workshop on 02.04.2024

Respected Sir,

With due regards, we wish to inform you that a student workshop on "**Advanced Geotechnical Testing in Laboratory and Field**" is planned from 02.04.2024 to 06.04.2024 for B.Tech. III year Civil Engineering students.

As a part of the workshop we have planned to conduct a lab visit on 02.04.2024 where the students will be visiting "**Landmark Material Testing & Research Laboratory**" located at RIICO Industrial Area, Mansarovar, Jaipur.

For this we require Institutes Bus Facility on **02.04.2024 from 11 am to 02 pm**. The participants will be accompanied by the faculty members. [Seating capacity 35]

Thanking You.

With best regards,

Dr. Pooja Gupta *Pooja*

Dr. Bharathi M. *Bharathi*

(Faculty Co-ordinators)

RG

H.O.-C.E

yes permitted.
Rh



**SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN JAIPUR-302017**

DEPARTMENT OF CIVIL ENGINEERING

5 - Day Student Workshop on

Advanced Geotechnical Testing in Laboratory and Field

Tentative Schedule

April 02, 2024	
11.30 to 2.30 pm	Lab Visit to "Landmark Material Testing and Research Pvt. Ltd."
April 03, 2024	
11.30 to 2.30 pm	California Bearing Ratio Test
April 04, 2024	
11.30 to 2.30 pm	Tri-axial Test
April 05, 2024	
08.00 to 11.00 am	Standard Penetration Test (Field Test)
April 06, 2024	
11.30 to 2.00 pm	Direct Shear Test
2.30 to 3.00 pm	Valedictory Program

H. Bharti

Event Coordinators



**SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN, JAIPUR-302017**

DEPARTMENT OF CIVIL ENGINEERING

**Student Workshop on
"Advanced Geotechnical Testing in Laboratory and Field"
(02 – 06, April 2024)**

LIST OF PARTICIPANTS

S. No.	Name of Student	RTU Roll no.	Email Id	Contact Number
1	Abhishek Meena	21ESKCE002	akmeena857@gmail.com	9351426835
2	Aditya Poonia	21ESKCE003	adityapoonia.com@gmail.com	8302367735
3	Almazim Akhtar	21ESKCE008	b210940@skit.ac.in	8239636276
4	Chandraprakash Meena	21ESKCE012	b210300@skit.ac.in	6377501529
5	Daksh Meena	21ESKCE013	thedaksh9719@gmail.com	7014225306
6	Darshit Mathur	21ESKCE014	darshitmathur@gmail.com	9983347179
7	Jaswant Jangid	21ESKCE035	b210430@skit.ac.in	8955878096
8	Kanishk Patidar	21ESKCE040	b210725@skit.ac.in	8107157312
9	Lavish Ahuja	21ESKCE046	lavishahuja262@gmail.com	9887768129
10	Mahendra Chhaba	21ESKCE047	b211140@skit.ac.in	8290313139
11	Manas Sharma	21ESKCE048	b210425@skit.ac.in	9782703861
12	Meet Khandelwal	21ESKCE051	meetkhandelwal2801@gmail.com	7375080955
13	Namasya Choudhary	21ESKCE055	namasya2970@gmail.com	8385077110
14	Neeraj Singh Meena	21ESKCE057	neerajkmr148@gmail.com	9413742543
15	Nikhil Garg	21ESKCE059	gargnikhil4047@gmail.com	9351127218
16	Pawan Kumar Dhakar	21ESKCE063	dhakarpawan09@gmail.com	8000384647
17	Puneet Dadhich	21ESKCE070	puneet.dadhich15@gmail.com	8619106882
18	Renu Kumari	21ESKCE077	b210366@skit.ac.in	6375338534
19	Reva Verma	21ESKCE078	rupalverma547@gmail.com	7878815275
20	Ritika Meena	21ESKCE080	ritikameena061002@gmail.com	88905 46859
21	Saarthak Chopra	21ESKCE084	sarthakchopra130@gmail.com	9571285091
22	Urvashi Gautam	21ESKCE098	b210988@skit.ac.in	8302857774
23	Khan Mosim Wahid	21ESKCE043	b210767@skit.ac.in	9998414248
24	Kamlesh Gujjar	21ESKCE038	b210708@skit.ac.in	7240144026
25	Karan Moond	21ESKCE042	b210707@skit.ac.in	9672661777
26	Dinesh Sharma	21ESKCE019	b210772@skit.ac.in	8000369627
27	Shreyansh Nagarwal	21ESKCE092	b210531@skit.ac.in	6376171384
28	Jitendra Saini	21ESKCE036	b211178@skit.ac.in	8905596722
29	Purva Kumavat	21ESKCE071	b210612@skit.ac.in	7014943487
30	Jugal Kishor Choudhary	21ESKCE037	jjugalkishor708@gmail.com	9352058839



DEPARTMENT OF CIVIL ENGINEERING

Student Workshop "Advanced Geotechnical Testing in Laboratory and Field"

Attendance

S. No.	Name of Student	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024
1	Abhishek Meena	Abhishek	Abhishek	AB	Abhishek	Abhishek
2	Aditya Poonia	Aditya	Aditya	Aditya	Aditya	Aditya
3	Almazim Akhtar	Almazim	Almazim	Almazim	Almazim	Almazim
4	Chandraprakash Meena	Chandraprakash	Chandraprakash	Chandraprakash	Chandraprakash	Chandraprakash
5	Daksh Meena	Daksh	Daksh	Daksh	Daksh	Daksh
6	Darshit Mathur	Darshit	Darshit	Darshit	Darshit	Darshit
7	Jaswant Jangid	Jaswant	Jaswant	Jaswant	Jaswant	Jaswant
8	Kanishk Patidar	AB	Kanishk	Kanishk	Kanishk	Kanishk
9	Lavish Ahuja	Lavish	Lavish	Lavish	Lavish	Lavish
10	Mahendra Chhaba	Mahendra	Mahendra	Mahendra	Mahendra	Mahendra
11	Manas Sharma	Manas	Manas	Manas	Manas	Manas
12	Meet Khandelwal	Meet	Meet	Meet	Meet	Meet
13	Namasya Choudhary	AB	Namasya	Namasya	Namasya	Namasya
14	Neeraj Singh Meena	AB	Neeraj	Neeraj	Neeraj	Neeraj
15	Nikhil Garg	Nikhil	Nikhil	Nikhil	Nikhil	Nikhil
16	Pawan Kumar Dhakar	Pawan	Pawan	Pawan	Pawan	Pawan
17	Puneet Dadhich	Puneet	Puneet	Puneet	Puneet	Puneet
18	Renu Kumari	Renu Kumari	Renu Kumari	Renu Kumari	Renu Kumari	Renu Kumari
19	Reva Verma	Reva	Reva	Reva	Reva	Reva
20	Ritika Meena	AB	Ritika	Ritika	Ritika	Ritika
21	Saarthak Chopra	Saarthak	Saarthak	Saarthak	Saarthak	Saarthak
22	Urvashi Gautam	Urvashi	Urvashi	Urvashi	Urvashi	Urvashi
23	Khan Mosim Wahid	Khan	Khan	Khan	Khan	Khan
24	Kamlesh Gujjar	Kamlesh	Kamlesh	Kamlesh	Kamlesh	Kamlesh
25	Karan Moond	Karan	Karan	Karan	Karan	Karan
26	Dinesh Sharma	Dinesh	Dinesh	Dinesh	Dinesh	Dinesh
27	Shreyansh Nagarwal	Shreyansh	Shreyansh	Shreyansh	Shreyansh	Shreyansh
28	Jitendra Saini	Jitendra	Jitendra	Jitendra	Jitendra	Jitendra
29	Purva Kumavat	Purva	Purva	Purva	Purva	Purva
30	Jugal Kishor Choudhary	Jugal	AB	Jugal	Jugal	Jugal

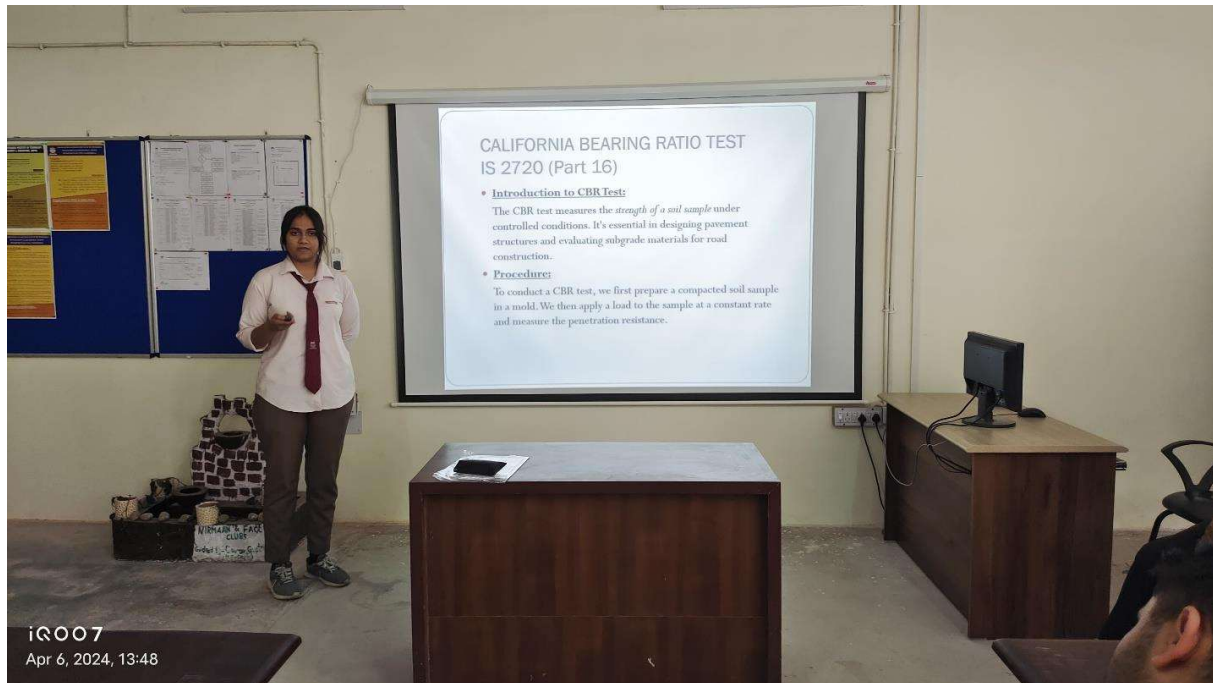
Photographs of the Event



Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India



Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India





Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India

Sample Certificate



5 - Day Student Workshop on

Advanced Geotechnical Testing in Laboratory and Field



Organised by

Department of Civil Engineering

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

Certificate of Participation

This is to certify that Saarthak Chopra (21ESKCE084) has successfully participated in 5 - Day Student Workshop on "Advanced Geotechnical Testing in Laboratory and Field" held from April 02 to 06, 2024 at Swami Keshvanand Institute of Technology, Management and Gramothan (SKIT), Jaipur.

Prof. D. K. Sharma
HoD

Dr. Bharathi M.
Coordinator

Dr. Pooja Gupta
Coordinator

Feedback Form

Student Workshop Feedback Form

Workshop on "Advanced Geotechnical Testing in Laboratory and Field"

April 02 to 06, 2024

* Indicates required question

1. Email *

2. The lab visit to Landmark Material Testing and Research Laboratory was useful. It provided valuable additional information about the field of Geotechnical Engineering. *

Mark only one oval.

1 2 3 4 5

Strongly ☐ ☐ ☐ ☐ ☐ Strongly Agree

3. The experiments performed in the workshop were useful. It provided additional valuable information and practical exposure. *

Mark only one oval.

1 2 3 4 5

Strongly ☐ ☐ ☐ ☐ ☐ Strongly Agree

4. The workshop was interesting/ engaging. *

Mark only one oval.

1 2 3 4 5

Strongly ☐ ☐ ☐ ☐ ☐ Strongly Agree

5. Instructors were knowledgeable about the topic. *

Mark only one oval.

1 2 3 4 5

Strongly ☐ ☐ ☐ ☐ ☐ Strongly Agree

Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India

6. Instructors' style of teaching was good. *

Mark only one oval.

1 2 3 4 5

Strongly Dislike ☐ ☐ ☐ ☐ ☐ Strongly Agree

7. What did you like BEST about the workshop? *

8. What did you like LEAST about the workshop? *

9. Any other suggestions for similar future workshop? *

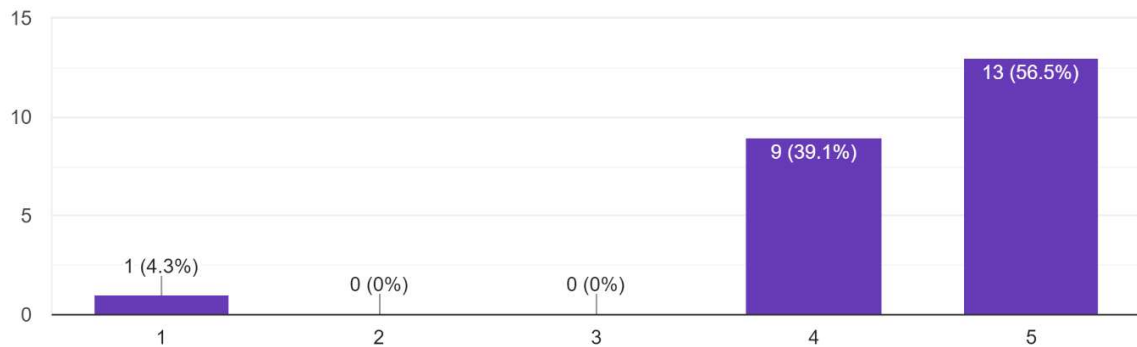
This content is neither created nor endorsed by Google.

Google Forms

Feedback Summary

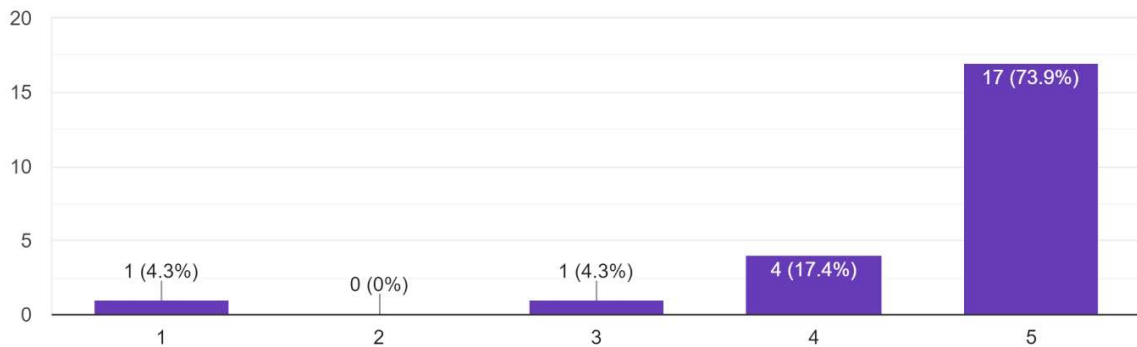
The lab visit to Landmark Material Testing and Research Laboratory was useful. It provided valuable additional information about the field of Geotechnical Engineering.

23 responses



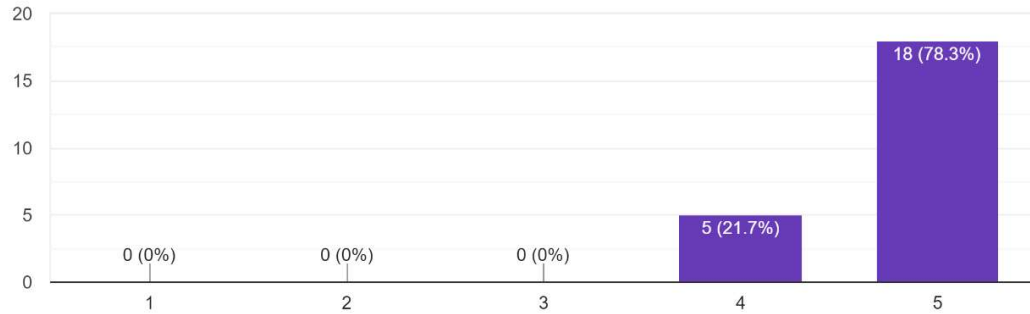
The experiments performed in the workshop were useful. It provided additional valuable information and practical exposure.

23 responses



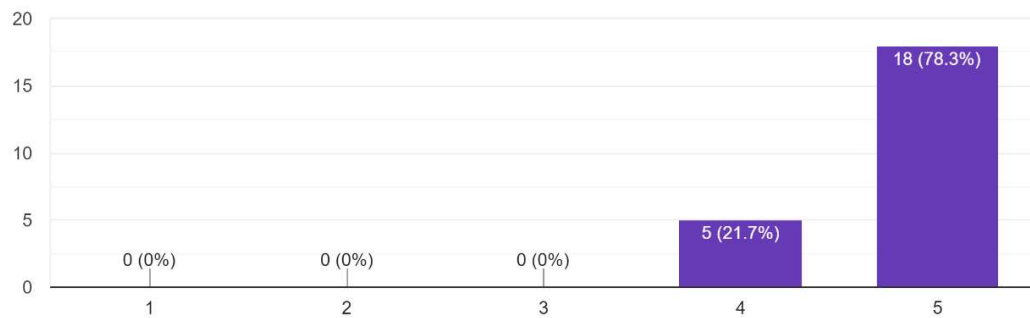
The workshop was interesting/ engaging.

23 responses



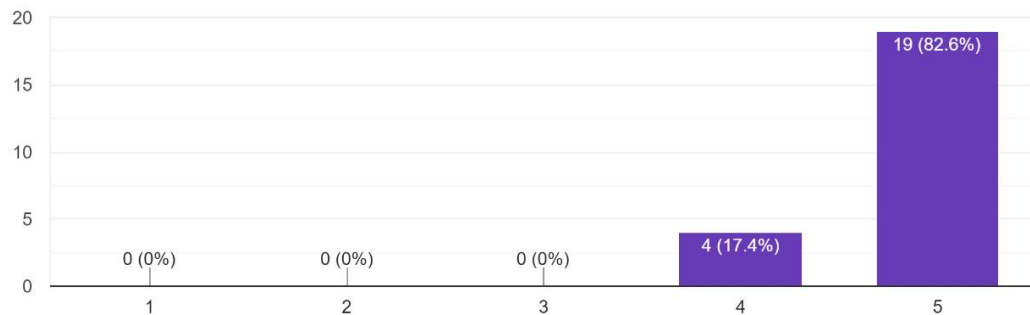
Instructors were knowledgeable about the topic.

23 responses



Instructors' style of teaching was good.

23 responses



Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India

What did you like BEST about the workshop?

- We could perform those experiments which we weren't able to perform during regular practical class. Even we got the knowledge about various other equipment during the visit to landmark material testing lab.
- The way faculties explained the experiment was amazing. We got the chance to perform test which we can't perform during our geotech. lab.
- The lab visit to Landmark Material Testing and Research Laboratory was very useful and informative, new and advanced machine were there.
- The lab visit to Landmark Material Testing and Research Laboratory was useful.
- Accuracy and relevancy of the workshop with practicals performed
- It's interesting to know more about geotechnical engineering
- The knowledge we gained about the practical.
- Overall workshop was very informative
- The experience and the experiments
- Interesting to know more soil test
- Experimental experience SPT test
- All over performance in workshop
- Practical Knowledge SPT Test
- Punctuality and informative
- Standard Penetration Test
- Different and innovative
- Field work experience
- The teacher was good
- New experience
- Interactive
- Everything
- Lab visit
- SPT Test

What did you like LEAST about the workshop?

- Nothing **8 responses**
- Nil 6 responses
- There should be more lab visit outside the campus
- Less lab visit outside the campus.
- Only one field experiment is held
- There should be more lab visit
- Field work should be more


Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India






- Only 1 day on-field work
- The field work is less.
- Least interaction
- One to one convo


Any other suggestions for similar future workshop?


- Nil **3 responses**
- More field work as per civil engineering prospects.
- Further this type of workshop should be held.
- More such workshops should be conducted.
- No
- Timing of landmark lab visit should be more.
- More experiments.
- More practical knowledge
- Should organize more workshops like this
- There should be more lab visit like Landmark material testing.
- More field work
- Practicals outside the campus
- Practical knowledge
- Outside campus visit should be more
- More field tests
- There should be more lab visit
- Expert lecture in respective field from industries.
- Increase these types of workshop
- One should conduct more such workshop
- Yes, need more future workshop and ongoing site visited also
- Workshop should be on regular basis

Media Coverage





 Home  My Network  Jobs  Messaging  Notifications



Landmark Material Testing and Research Pvt. Ltd.
554 followers
1mo • 

This Tuesday, we had the pleasure of having students of SKIT University under the guidance of Dr. Bharathi M and Ast. Prof. Nishant Sachdeva for lab visit to gain insights on laboratory material testing.
[#labtesting](#) [#materialtesting](#) [#labvisit](#) [#studentsvisit](#) [#skituniversity](#) [#landmarklab](#)



 You and 25 others 4 reposts

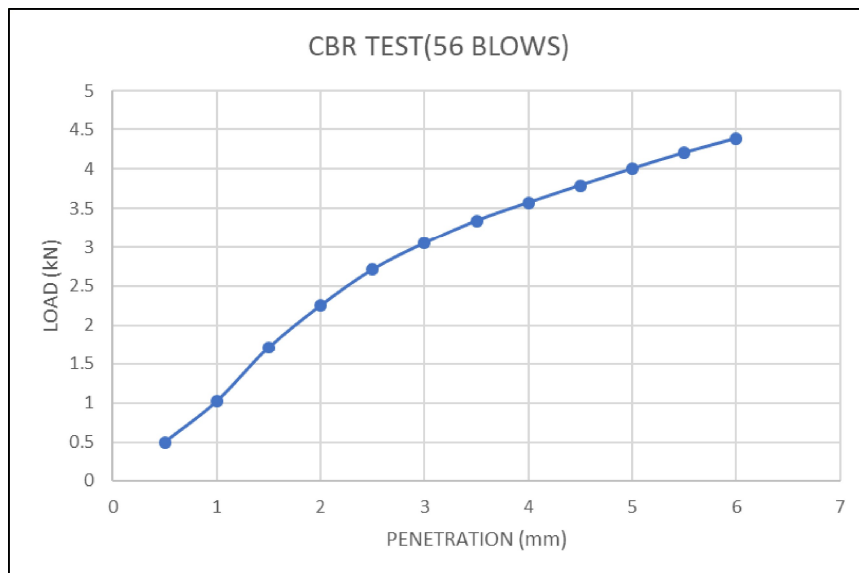
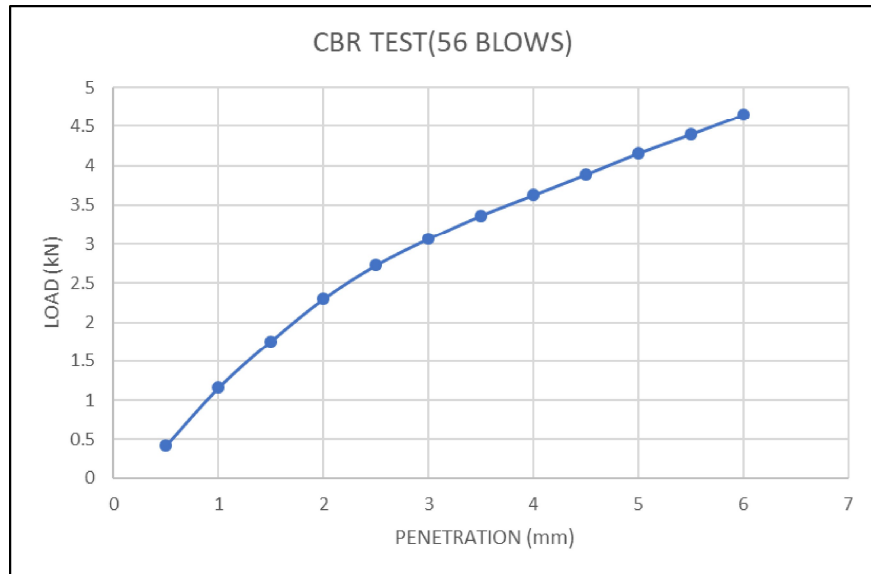
Swami Keshvanand Institute of Technology Management & Gramothan
Ramnagar, Jagatpura, Jaipur-302 017, Rajasthan, India

Technical Report

Civil Engineering Department conducted a 5-Day Student Workshop on "Advanced Geotechnical Testing in Laboratory and Field" from April 02, 2024, to April 06, 2024. The workshop was exclusively organized for III year B.Tech. Civil Engineering students. During the workshop, the students were trained to perform laboratory and field investigations and visited a material testing facility.

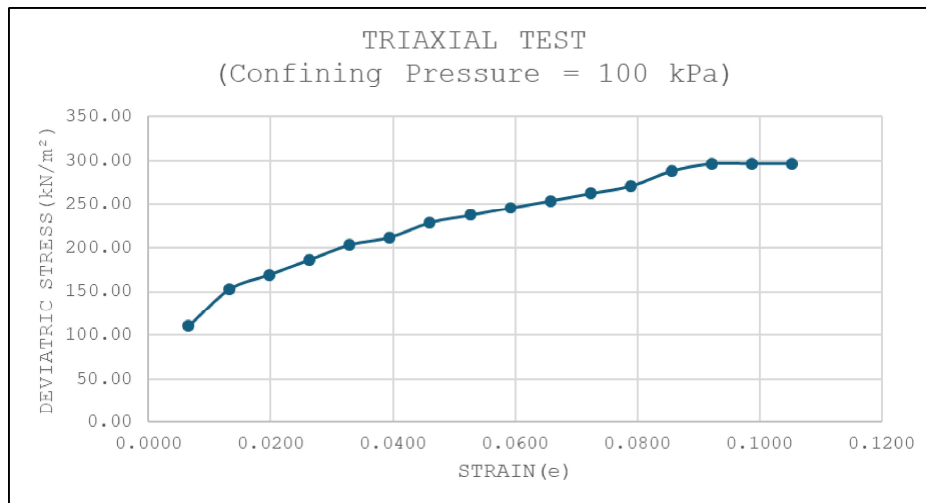
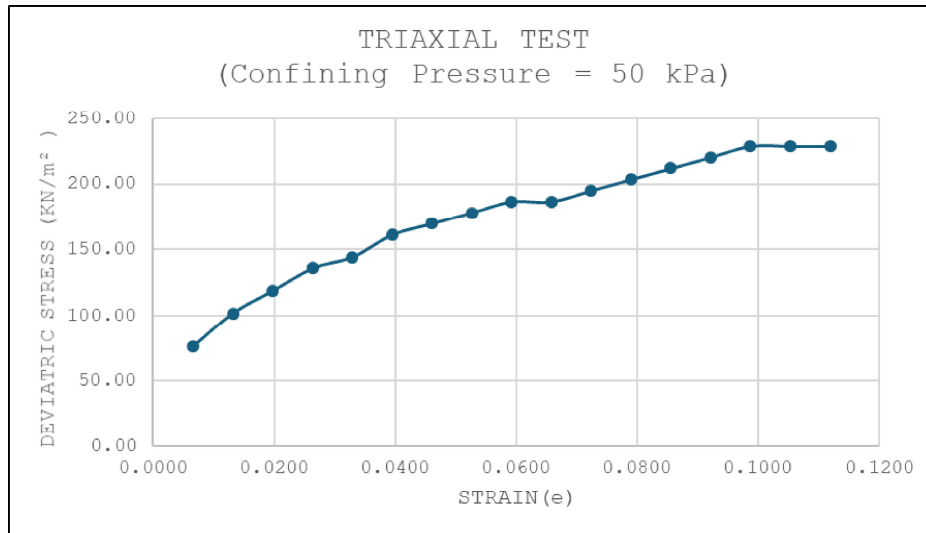
On Day 1, Dr. Bharathi M. and Dr. Pooja Gupta gave an introduction of the 5- days workshop. After the introduction to the workshop the team proceeded to **Landmark Material Testing and Research Laboratory**. The testing facility had equipments to evaluate the mechanical, hydraulic, and durability properties of geosynthetic materials such as geotextiles, geomembranes, and geogrids. These properties are essential for assessing suitability of geosynthetics in civil engineering applications such as soil stabilization, erosion control, and drainage systems. These tests are conducted to ensure proper selection and design of geosynthetic materials to enhance the performance, longevity, and sustainability of infrastructure projects while minimizing environmental impact.

Day 2 began with the description of **California Bearing Ratio Test**. The California Bearing Ratio (CBR) test is a penetration test used to evaluate the mechanical strength of natural ground, subgrades, and base courses beneath pavements. The CBR value provides an indication of the relative strength of the soil compared to the standard material. Higher CBR values indicate stronger, more resilient soil that can support loads better without excessive deformation.



For Sample 1, the CBR (2.5 mm) = 20.31 and CBR (5.0 mm) = 20.64 was obtained and for sample 2, CBR (2.5 mm) = 20.16 and CBR (5.0 mm) = 19.84 was obtained.

On Day 3, Tri-axial test was performed to determine the strength parameters c and ϕ in **Unconsolidated – undrained (UU)** conditions.



For a confining pressure = 50 kN/m² a deviator stress of 228.91 kN/m² was obtained. Similarly, for a confining pressure = 100 kN/m² a deviator stress of 296.74 kN/m² was obtained.

On Day 4, Standard Penetration test (SPT), an in-situ test was conducted. SPT was carried out in borehole. The resistance of the soil strata to the penetration undergone was measured. The test is extremely useful for determining the relative density and the angle of shearing resistance of cohesionless soils.

Depth (m)	Drive	No. of Blows	SPT N Value
1.2	150 mm Seating Drive	2	
	150 mm	2	
	150 mm	3	5
1.6	150 mm Seating Drive	2	
	150 mm	1	
	150 mm	1	2
2	150 mm Seating Drive	2	
	150 mm	1	
	150 mm	2	3

SPT N value represents Very Loose or Loose sand (As per IS 2911 – Annexure C)

The 5th Day began with the description of **Direct Shear Test** conducted to determine the c and ϕ values of the soil sample. Calculation was shared to students for convenience of students. Students learned about the interpretation of results. The direct shear test was followed by the valedictory function. In the valedictory function, student participants presented the day wise learnings in the workshop and delivered a presented to the fellow students and faculties. Prof. D.K. Sharma, HoD, Civil Engineering Department, SKIT appreciated the interest taken by the students in the workshop and the coordinators' efforts. He also highlighted the importance of such practical experience along with the theoretical background. The certificates were distributed to all the participants, coordinators (Dr. Bharathi M. and Dr. Pooja Gupta) and the technical assistant (Mr. Suresh Kumar Yadav). The coordinators collected the feedback on the workshop from all the participants.

Objective and Outcome of the Workshop

Objectives

- To provide hands on experience on few experiments to obtain important engineering properties of soil.
- To provide hands on experience on performing field test like standard penetration test (SPT) which is widely used in industry.
- To make student aware of different testing facilities available for Geosynthetics.

Outcomes

- The participants of the workshop will be able to conduct tests including direct shear test, tri-axial test, California bearing ratio test and standard penetration test (SPT).
- The participants will be able to perform the tests, analyze and report the findings based on the tests conducted.
- They will be aware about the tests to be conducted on different types of Geosynthetics.

Relevance to PO's and PSO's

S. No.	Name of Activity	Resource Person	Related POs and PSOs
1.	" Advanced Geotechnical Testing in Laboratory and Field "	Dr. Bharathi M and Dr. Pooja Gupta	PO (1.3.1, 1.4.1, 3.1.1, 3.1.4, 3.1.6, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.2.1, 4.3.1, 5.1.1, 5.1.2, 5.2.2, 5.3.2, 6.1.1, 6.2.1, 12.1.1, 12.2.1, 12.2.2), PSO (1.1.1, 1.1.2, 1.1.3, 2.1.1, 2.1.2)
2.	"Landmark Material Testing and Research Pvt. Ltd."	Mr. Harsh Chittora	PO (1.3.1, 1.4.1, 3.1.1, 3.1.4, 3.1.6, 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.2.1, 4.3.1, 5.1.1, 5.1.2, 5.2.1, 5.2.2, 5.3.1, 5.3.2, 6.1.1, 6.2.1), PSO (1.1.1, 1.1.2, 1.1.3, 2.1.1, 2.1.2)