



# PRAGATI ENGINEERING COLLEGE (Autonomous)

# 1-378, ADB Road, Surampalem, E.G.District, A.P. - 533 437  
(Approved by AICTE & Permanently Affiliated to JNTUK, Kakinada & Accredited by NAAC with 'A' Grade)  
(Recognised by UGC Under Sections 2 (f) and 12 (b) of UGC act, 1956)

Ph : 08852 - 252233, 252234, 252235, Fax : 252232, Website : www.pragati.ac.in

(Sponsored by Gayatri Educational Society)

D.No. 2-24-4/2, Ground Floor, Janmabhoomi Park Road, Srinagar, Kakinada - 3. Ph : 0884 - 2355900, Fax : 2363900

PEC/CE/Circular

Date: 26-12-2023

## CIRCULAR

This is to inform that Association of Consulting Civil Engineers (India), Kakinada centre cordially organizing an online Lecture on “Emerging Trends in Geotechnical Engineering” by “Assoc. Prof. Dr. K. SAROJA RANI, PRAGATI Engineering College, SURAMPALEM on Thursday 28<sup>th</sup> December, 02:00 Pm (IST) Onwards in MS-7 class room.

All the students and faculty members are requested to utilize this opportunity with your presence.

HOD-CE

Copy to...,

Dept. Notice Board.

Circulate among Faculty,

Class Rooms of II, III & IV years



Learning is Supreme Duty

# PRAGATI ENGINEERING COLLEGE

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#1-378, ADB Road, Surampalem – 533 437, Near Peddapuram, E.G.Dist., A.P.  
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## DEPARTMENT OF CIVIL ENGINEERING

### Report

## EMERGING TRENDS IN GEOTECHNICAL ENGINEERING

- Assoc. Prof. Dr. K. SAROJA RANI, PRAGATI Engineering College,  
SURAMPALEM

Date: 28<sup>th</sup> Dec, 2023

Association of Consulting Civil Engineers (India), PRAGATI Engineering College, SURAMPALEM organized a seminar on “EMERGING TRENDS IN GEOTECHNICAL ENGINEERING” by “Assoc. Prof. Dr. K. SAROJA RANI, PRAGATI Engineering College, SURAMPALEM” on Sunday 28<sup>th</sup> December, 2 Pm (IST) Onwards.

### Main topics:

- Groundbreaking Innovations Pushing the Boundaries of Geotechnical Engineering
- Revolutionizing Infrastructure: The Role of Geotechnical Engineering in Modern Construction
- Building on Solid Foundations: Advancements in Geotechnical Engineering Techniques
- Pioneering the Future: Exploring New Frontiers in Geotechnical Engineering

### The Future of Geotechnical Engineering

As geotechnical engineering continues to evolve, the future looks promising. Emerging technologies such as artificial intelligence (AI), machine learning, and automated monitoring systems hold great potential for revolutionizing the field further. These technologies will enable engineers to gather and analyze vast amounts of data more efficiently, leading to improved design accuracy, enhanced construction techniques, and optimized maintenance practices.

Key Take a ways:

- Artificial intelligence and machine learning will enhance data analysis.
- Automated monitoring systems will provide real-time insights.
- Improved design accuracy, construction techniques, and maintenance practices.

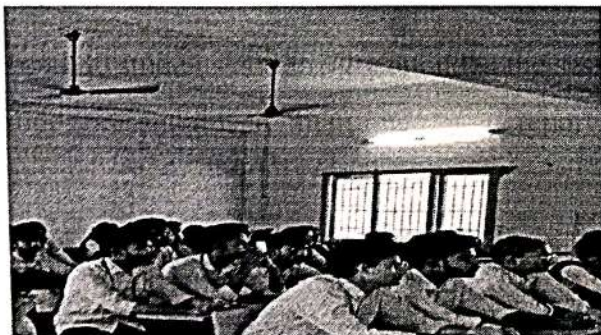
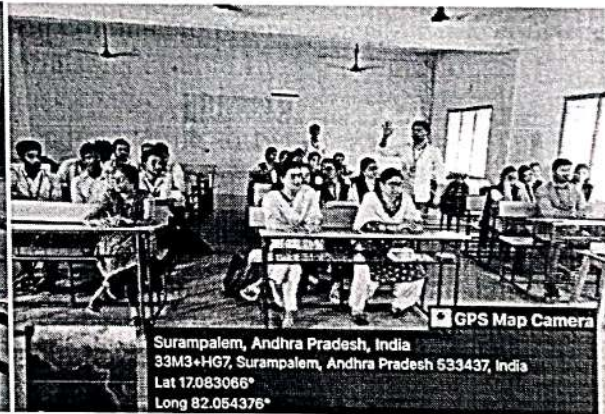
In conclusion, groundbreaking innovations in geotechnical engineering are revolutionizing the way we design, construct, and monitor structures. From advanced geotechnical instrumentation to geosynthetics and ground improvement techniques, these innovations offer numerous

advantages and improved outcomes. As technology continues to propel the field forward, the future of geotechnical engineering looks promising, with further advancements on the horizon.

- **Smart Infrastructure:** Geotechnical engineers will leverage emerging technologies such as the Internet of Things (IoT) and real-time monitoring systems. This data-driven approach will enhance the performance, safety, and sustainability of structures.
- **Climate Resilience:** Climate change poses significant challenges to infrastructure. Geotechnical engineers will play a vital role in assessing climate risks and designing resilient foundations capable of withstanding extreme weather events.
- **Green Construction:** Geotechnical solutions will continue to prioritize sustainable construction practices, including the use of eco-friendly materials, renewable energy integration, and implementing nature-based engineering techniques.
- **Advanced Modeling:** With the advent of advanced modeling software, geotechnical engineers will be able to simulate and predict the behavior of various ground conditions. This will enable more accurate designs and improved risk management.

In conclusion, geotechnical engineering revolutionizes infrastructure by ensuring the stability and sustainability of modern structures. From site investigations to foundation design and sustainable construction practices, its role is indispensable. By embracing new technologies and techniques, geotechnical engineers will shape the future of the construction industry, paving the way for safer, greener, and more resilient infrastructure.

Total 30 students and faculty attended the session. The pictures of the event and glimpses of slides presented were mentioned in the report stated.



**DEPARTMENT OF CIVIL ENGINEERING**  
**ACCE (I) STUDENT CHAPTER**  
**LIST OF STUDENTS ATTENDED**

Event: **EMERGING TRENDS IN GEOTECHNICAL ENGINEERING**

Date: 28-12-2023

S. No	Name of the student	Signature
1	K. Deviudaya bhanu (23A35A0101)	K. Deviudaya bhanu
2	M. Mounika (23A35A0107)	M. Mounika
3	D. Madhulatha (23A35A0102)	D. Madhulatha
4	A. Sushma (23A35A0101)	A. Sushma
5	G.H.L. Kalyani (23A35A0103)	G.H.L. Kalyani
6	S. Satya (23A35A0109)	S. Satya
7	K. Lohasi Venkateswara (23A35A0105)	K.L.V. Swaga
8	R. Vasavi (23A35A0108)	R. Vasavi
9	K. Lohasika Ratnam (23A35A0106)	K. Lohasika Ratnam
10	M. Annapurna (22A31A0106)	M. Annapurna
11	S. Jahnvi (22A31A0110)	S. Jahnvi
12	G. Poojitra Jahnvi (22A31A0104)	G. Poojitra Jahnvi
13	G. Ishwariya Ambika (22A31A0111)	G. Ishwariya
14	D. Sirisha (22A31A0102)	D. Sirisha
15	P. Mahanvitha (22A31A0108)	P. Mahanvitha
16	P. Tejaswini (22A31A0112)	P. Tejaswini
17	N. Harika Lakshmi (22A31A0107)	N. Harika Lakshmi
18	R. Nandini devi (22A31A0109)	R. Nandini devi
19	B. Bhavani (22A31A0101)	B. Bhavani
20	B. Lakshmi (22A31A0113)	B. Lakshmi
21	D. MAHESH (23A35A0113)	D. Mahesh
22	G. Shalem Raj (23A35A0115)	G. Shalem Raj
23	D. Sanyasankaranagasari (23A35A0114)	D. Sanyasankaranagasari
24	G.N. Venkateswara Rao (22A31A0116)	G.N. Venkateswara Rao
25	N. Radha chakradhar (22A31A0125)	N. Radha chakradhar
26	K.M.N. Balaram (22A31A0132)	K.M.N. Balaram
27	P. Mani Kumar (22A31A0128)	P. Mani Kumar
28	K.V.D. Jaghava (23A35A0118)	K.V.D. Jaghava
29	S.V.D. Jagan (23A35A0120)	S.V.D. Jagan
30	K. Jagadeeswarar (22A31A0118)	K. Jagadeeswarar

  
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