

INDIAN GEOTECHNICAL SOCIETY
AURANGABAD CHAPTER

Address: Civil Engineering Department,
Marathwada Institute of Technology,
Satara Parisar, Beed bypass road,
Aurangabad, Maharashtra – 431010
Tel: 0240-2375130/131
e-mail: igsaurangabad@gmail.com



EXPERT TALK REPORT

Topic of Expert talk: “Liquefaction Hazard Analysis and Mitigation”

Date of Expert talk: 11th May 2022

Time: 11.30am

Details of Speaker: - Prof. Mrs. Suman Jain.

Singhad College of Engineering, Lonavala, Maharashtra.

. An expert talk on the topic “**Liquefaction Hazard Analysis and Mitigation**” was arranged by Civil Engineering Department of Marathwada Institute of Technology, Aurangabad in association with IGS Aurangabad Chapter, on 11th May 2022 at 11.30am. Prof. Mrs. Suman Jain, Faculty of Civil Engineering Department, Singhad College of Engineering, Lonavala, Maharashtra, was the resource person. More than 80 participants were present during the talk.

Prof. Mrs. Suman Jain explained the theory behind the liquefaction of the soil, hazard associated with soil, and its mitigation. Er. Ramesh Kulkarni were also present during the talk, and he motivated the students to make a career in Geotechnical Engineering.

Prof. Mrs. Archana Pathak, carried the proceedings. Dr. Manish S. Dixit, (HCED, MIT and Hon. Secretary, IGS Aurangabad Chapter) and entire organizing team took efforts in successful completion of the webinar



Photo : Felicitation of Er. Ramesh Kulkarni

Tree Plantation Program

IGS Aurangabad Student Chapter organized Tree Plantation program on 11th May 2022.

Er. Ramesh Kulkarni Chairman & Managing Director, SoilTech India Pvt. Ltd., Pune and Prof. Suman Jain, Civil Engineering Department, Singhgad College of Engineering, Lonavala were present as guests for the activity. IGS student chapter members, volunteers and students of civil engineering department came together for the same.

Thought behind this activity was to create some awareness amongst the students regarding changing environment as well as giving our share to the society.

Dr. M. S. Dixit (Secretary, IGS Aurangabad Local Chapter and Head, Civil Engineering Department) and Prof. S G Quadri (Joint Secretary, IGS Aurangabad chapter and Faculty coordinator, IGS Aurangabad Student Chapter) and other members took effort for the activity. All faculty members and student volunteers were present during tree Plantation.

The photographs for same event are attached below:



IGS Aurangabad Student Chapter

Report of SANKALP-2K22

IGS Aurangabad Student Chapter and Civil Engineering Department, Marathwada Institute of Technology Aurangabad jointly organized Technical Event “SANKALP-2K22” for Diploma and Undergraduate students of Civil Engineering on Saturday, 21st May 2022. This event was sponsored by **Civil Engineering Software Academy (CESA), Pune.**

Shri. Parimal Marathe presided as Chief Guest for the inaugural function of “Sankalp-2k22”. He guided and motivated all the students and participants. Dr. Manish S. Dixit, Hon. Secretary, IGS Aurangabad Chapter, gave the preamble of the technical event. Dr. Uttam Kalwane, Chairman, IGS Aurangabad Local Chapter guided the students with his valuable words. Faculty coordinator Prof. S.G. Quadri, Joint Secretary, IGS Aurangabad Chapter, took efforts in organizing “SANKALP-2K22”. Vaishnavi Upadhye, Secretary, IGS Aurangabad Student Chapter delivered vote of thanks.

There were two events organized under “SANKALP-2K22” i.e. AutoCAD Competition and Technical Quiz Competition. More than 60 entries were received for both events. Three winners from each competition for declared by the judges. For Auto CAD Competition , Er. Zaid, Civil Engineering Software Academy, Pune was invited as judge. While, for Technical Quiz Competition, Prof. P. G. Sonar and Prof. D. S. Patil from CSMSS Chh. Shahu College of Engineering were invited as judges.

List of winners is as follows:

For AutoCAD Competition:

1. Onkar Raut, DIEMS Aurangabad
2. Pratik Mane, JNEC Aurangabad
3. Nikhil Padmavat, DIEMS Aurangabad

For Technical Quiz Competition:

1. Darshan Parab, Shivam Ghodke, DIEMS Aurangabad
2. Janvi Rajguru and SamrudhiVanwe, Marathwada Institute of Technology
3. Akshay Deshmukh, Vishal Mete, JNEC Aurangabad



A Brief Report of One Week STTP on “Advances in Deep Foundation” from 7th- 11th June 2022

Event Details: One Week STTP On Advances in Deep Foundation, jointly organized by Indian Geotechnical Society, Aurangabad Chapter, Civil Engineering Department, Marathwada Institute of Technology, Aurangabad, and Dr. Babasaheb Ambedkar Technological University, Lonere.

Dates: 7 to 11 June 2022

Venue: Marathwada Institute of Technology, Aurangabad.

Overview: The first problem facing the designer of a foundation is to determine whether or not the site conditions are such that piles must be used. Piles are used where upper soil strata are compressible or weak; where footings cannot transmit inclined, horizontal, or uplift forces; where scour is likely to occur; where future excavation may be adjacent to the structure; and where expansive or collapsible soils extend for a considerable depth. This STTP aimed to enhance the knowledge base of its participants in the field of deep/ pile foundations.

Objective:

- Increasing awareness about the recent advancement in Deep Foundations, more specifically in Pile Foundations
- To enhance and sharpen the skills of students and faculties
- To develop the basic understanding of design, resolving challenges faced on field related to Deep Foundation.
- To address the gaps between curriculum and real-life field.

Participation: 57 students 29 faculties participated in this STTP

Program:

Day 1: Inauguration: The One-week Short Term Training Program which was organized from 7th June to 11th June 2022 on “Advances in Deep Foundation” was designed to address the gaps between curriculum and real-life field challenges.

The One Week Short Term Training Program started with lighting of lamp by the chief guest Dr. A. P. Singh, Director Explore Engineering Consultant Pune, Faizan Khan, Metaroll Jalna, followed by the singing of the Saraswati Vandana. Later, Dr M.S.Dixit gave preamble of the event and Dr. U.B. Kalwane gave the message. Dr. N. G. Patil emphasized the need of such programs as they provide a unique opportunity to explore the boundaries of what is currently known in various domains of Engineering and Technology. In the last the chief guest delivered his speech appreciating the event organizers and encouraged the participants to take full advantage of the event.

The function ended with a Vote of Thanks presented by Ms. Archana Pathak, EC member, IGS Aurangabad chapter. Later after the inaugural session, expert lecture sessions started. Day 1 sessions were anchored by Assistant Professor Archana Pathak.

Day 1 Session 1: The first presentation of the STTP was delivered by Dr. A. P. Singh, Director Explore Engineering Consultant Pune. The presenter stated with a very logical concept that Human Population will lead to infrastructure growth which in-turn demand better foundation engineering as everything that we human do, needs a foundation to rest. He explains the importance of soil investigation within the domain of foundation engineering and added there are three major layers: Soil, the weakest. Rock, the strongest and then in between the IGM (Intermediate Geo Materials).

Day 1 Session 2: The second session of the day was conducted by Faizan Khan, Metaroll Jalna. He showed the process of manufacturing TMT steel bars and discussed about judging parameters for quality of TMT bars. He ended his session with 3 questions for students to test the improvement in their knowledge.

Day 2 was anchored by Assistant Professor Alka Wevhal. The sessions of this day were conducted in on-line mode.

Day 2 Session 1: The first session was conducted by Dr Chandresh Solanki from SVNI, Surat. His topic was “Susceptibility of Soil Liquefaction & Mitigations”

Day 2 Session 2: The second session of the day was conducted by Dr. Jaykumar Shukla, Principal Engineer, GeoDynamics, Vadodara. His topic was “Deep Foundations and Soil Structure Interactions- case Studies”. The topic covered case studies related to soil structure interaction and deep foundations. First case study was about ground improvement scheme to support stacker/reclaimer berm. The second case study was on use of deep foundation as settlement reducers. And the third case study described the one piled-raft foundation where piles were used to control the settlements.

Day 2 Session 3: The third session was on topic “Dynamic Soil Structure Interaction of Pile Raft Foundation”. This session was conducted by Dr. Neelima Satyam, IIT Indore. She talked about performance-based engineering for seismic evaluation and design. She also covered the time-domain displacement and stress histories for dynamic loading on the original pile configuration and the equivalent piers.

Day 3 was anchored by Assistant Professor Archana Pathak.

Day 3 Session 1: The first session of day 3 started with the expert talk by Dr. Vinil Kumar Gade, NIT Andhra Pradesh. His topic was Instrumentation & case studies on pile foundations. The talk was about use of sensors for precise assessment of structures and deep foundations actual behavior in real time. He also covered principle and calibration of sensors.

Day 3 Session 2: The second session was taken by Dr. Ravi S. Jakka, Associate Professor, IIT Roorkee, Earthquake Resistant Design of Pile Foundations. The presented lecture on earthquake – resistant design of pile foundations provided a detailed insight into implication of seismic loads.

Day 3 Session 3: Dr. Vinil Kumar Gade, NIT Andhra Pradesh, again gave another presentation. This one is on Significance of Geotechnical Investigations and NDT. And talked about the importations of geotechnical investigations in deciding whether particular structure can be constructed or not over a particular location.

Day 4 was again anchored by Assistant Professor Alka Wevhal. The sessions of this day were conducted in class-room mode.

Day 4 Session 1: The first session was conducted by Dr. Shrikant Shinde, VIIT Pune. He continued his lecture on “Principle & Practices of Deep Soil Stabilisation” from his earlier session from day 3. Continuing his presentation on how to stabilize soil at greater depths, he talked geomaterial composite form to carry vertical loads and shear forces

Day 4 Session 2: The second session was slightly different but equally important. It was on role of Yoga in reducing daily life stresses. The session was conducted by Dr. U. B. Kalwane, MIT Aurangabad. The title of his session was “Health is Wealth”.

Day 5, which was the last day of STTP, was anchored by Assistant Professor Archana Pathak.

Day 5 Session 1: The first presentation of the last day of STTP was taken by Dr. Sunil S. Basarkar, Afcons Infrastructures Limited, Mumbai. He shared his knowledge about bored cast-in-situ piles socketed in rock. He discussed about non-displacement piles which are profusely used as foundation for multistoried building, flyover and river bridges.

Day 5 Session 2: The last presentation on this STTP was on Deep Foundations Under Artesian Conditions by Er. Ravi Sundaram, Director, Cengrs Geotechnica Pvt Ltd, Noida. He shared his field experiences of geotechnical investigations, methodology for measure artesian pressures and discharge and the phenomenon on “multiple artesian layers” and “shifting of artesian points”.

Day 5 Validatory Function: The STTP program ended with the valedictory function which was graced with the presence of Dr. N. K. Samadhiya, Dr. J. T. sahu, Dr. Shivkumar Babu, Dr. N. G. Patil, Dr. U. B. Kalwane and Dr. M. S. Dixit. Dr. N. K. Samadhiya, Dr. J. T. sahu, and Dr. Shivkumar Babu addressed the gathering. They in their speeches appreciated the efforts taken by IGS, Aurangabad in organizing the STTP and hoped the participant have learned something new and stimulating. Towards the end, the certificates were distributed to the participant of the STTP and a souvenir was realized by the dignitary present on the daises.

The function ended with a Vote of Thanks presented by Ms. Archana Pathak, EC member, IGS Aurangabad. This event was equally supported by the volunteers from IGS Aurangabad student chapter.

Day 5 Executive Committee Meeting

231st Indian Geotechnical Society (IGS) Executive Committee (EC) meeting was conducted at IGS Aurangabad Chapter. The venue of the meeting was Marathwada Institute of Technology, Aurangabad. The meeting held on 11 June 2022 at 2:00 pm and was attended by 19 EC members. The meeting started with facilitation of the members and brief introduction of the meeting agenda. The EC members appreciated IGS Aurangabad Chapter for organizing the 5-day STTP and the EC meeting. The meeting ended at 7:30 pm with determination to continue work for the betterment of geotechnical science.

