

## **Webinar on "Foundations for Infrastructure Facilities: Principles and Sustainable Practices"**

The Department of Civil Engineering, Don Bosco College of Engineering, Fatorda, Goa organized Two Days Online National Webinar on "Foundations for Infrastructure Facilities: Principles and Sustainable Practices" from 2nd September to 3rd September 2021 in association with Indian Institute of Technology Madras, Chennai.

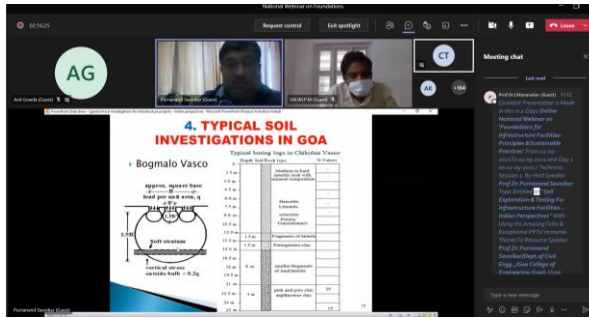
The Inaugural function was witnessed by the Chief Guest Mr. Rajesh Naik, Additional General Manager (Projects), Indian Port Rail & Ropeway Corporation Ltd., (A JV Company under Ministry of ports, shipping and Waterways, Government of India), Director Rev Fr. Kinley D' Cruz, Principal Dr. Neena Panandikar which was held on 2<sup>nd</sup> Sep 2021. Mr. Rajesh Naik mentioned that to celebrate 10 years of remarkable journey of DBCE the path initiated to conduct seminar is appreciable which would help participants to learn new concepts beyond syllabus content. He further stated that experience and challenges faced during construction shared by speakers from IIT, NIT and engineers from geotechnical field will be helpful for all. Knowledge of foundation for buildings major and minor bridges, reinforced earth structures, roads and railway infrastructure is vital as many challenges are faced in ground improvement due to erratic soil behavior.

The Convenor for the webinar was Dr. G. R Dodagoudar Prof IITM, Chennai and Dr. Shwetha Prasanna HOD, DBCE. The coordinators were Asst. Prof. Swaroopa Sail and Asst. Prof. Starina Dias.

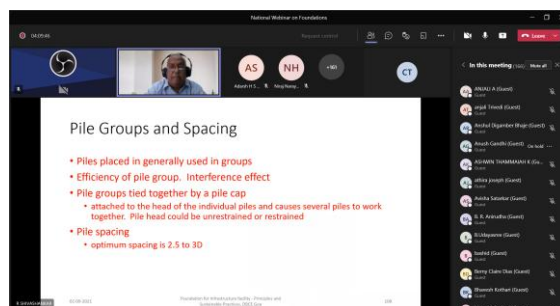


In total there were 6 sessions delivered by eminent speakers from various Institutions and organisations across India.

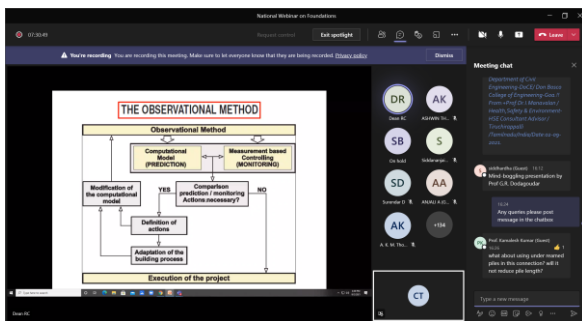
The first speaker was Dr. Purnanand P Savoikar, Professor in Civil Engineering, Goa College of Engineering, - Goa highlighted on need for geotechnical investigations, General guidelines for shallow and deep investigations, Equipment used, Invasive and Non-invasive investigations and Physical modeling.



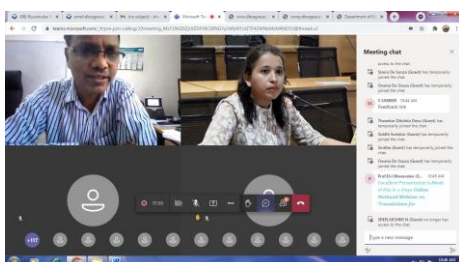
The second speaker was Prof. R. Shivashankar from NITK Surathkal covered topics on types of pile foundations, load bearing capacity, advantages of piles, liquefaction, mobilization of pile resistances and design aspects. He presented on amazing civil engineering structures, pile driving formulas, pile load tests, pile integrity tests and pile group analysis.



The third speaker was Prof. G. R. Dodagoudar from IITMadras, Chennai presented on design principles, Construction and Monitoring of combined pile raft foundation, finite element method, soil-structure interaction, case studies, recommendations for the design of CPRF and the observational method.



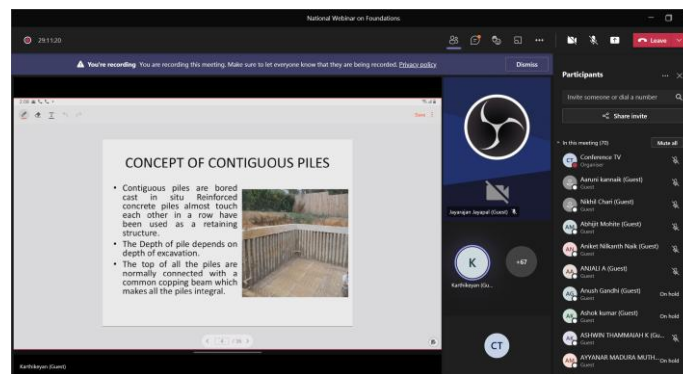
The second day, the first session was delivered by Prof. Vishwas Sawant from IIT Roorke who gave overview on the mechanism, types of liquefaction, evaluation of liquefaction potential, zone of liquefaction and modeling of liquefaction.



The next session was delivered by Ms. Sangeen Desai and Mr. Govind Raj from Keller Ground Engineering India Pvt. Ltd. Mumbai who highlighted on optimal foundation solution, choice of foundation systems, piling in seismic condition, alternative foundation techniques, innovation in foundations, challenges for geotechnical engineers, opportunities for ground improvement, types of ground improvement, vibro stone columns, vibro compaction and challenging projects carried out by Keller India Pvt., Ltd., Mumbai.



The last session for the day was by Mr. A. Karthikeyan Proprietor of Karthikeyan Associates, Chennai explained on contiguous piles, borelogs, earth pressure diagram, design of capping beam, structural drawing and site challenges.



The webinar concluded by the valedictory speech given by the Chief Guest Mr. Raj Kumar K. Dy. General Manager L & T Construction, Larsen & Toubro Limited, Mumbai. Mr. Rajkumar K mentioned that L & T had completed remarkable Mandovi bridge project and appreciated seminar topic as it meets present challenges to meet 17 basic sustainable goals given for world, two prominent being no poverty and home to live. Construction industry round the clock working for infrastructure projects for next generation. Mumbai coastal route project has adopted monopiles of diameter used 2.5m, 3.2m, 3.5m instead of group of piles as no pier and pile cap is required and pile itself acts as a pier.

Altogether 539 participants had registered from all around the world which included from Nigeria, South Africa, Nagaland, Bangladesh, Manipur, Orissa, Jammu & Kashmir, Uttar Pradesh, Andhra Pradesh, Rajasthan, Gujarat, Karnataka, Goa, Maharashtra, Tamil Nadu, Ranchi, Delhi, Telangana, Thiruvananthapuram, Pondicherry and Haryana.