GROUND IMPROVEMENT

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TYPE OF COURSE : New | Elective | UG/PG
COURSE DURATION : 12 Weeks (26-Jul' 21 - 15-Oct' 21)
EXAM DATE : 24 Oct 2021

PRE-REQUISITES : Final year B Tech/BE students with knowledge of Soil Mechanics and Foundation engineering, any ME/M tech students

INTENDED AUDIENCE : B Tech/BE Final year and M Tech/ME students

COURSE OUTLINE :
Ground improvement is a very essential activity in geotechnical engineering when construction occurs in problematics soils and under difficult geotechnical conditions. The state of the practice for ground improvement technologies is ahead of theory.

ABOUT INSTRUCTOR :
Presently Professor in Civil Engineering at IIT Kharagpur, graduated in Civil Engineering in 1987 from Bengal Engineering College Sibpur and obtained ME and Ph D from IISc Bangalore in the year 1989 and 93, respectively. Have 25 years of experience in teaching and research and guided more than 25 M Tech dissertations and 7 Ph D thesis on Geotechnical Engineering.

COURSE PLAN :
Week 1: Introduction
Week 2: Shallow Densification
Week 3: Deep Dynamic Compaction
Week 4: Rrapid Impact Compaction
Week 5: Vibrocompaction
Week 6: Drainage And Dewatering
Week-7: excavation and replacement
Week-8: preloading and vertical drain for densification
Week-9: grouting methods
Week-10: chemical stabilisation
Week-11: soil nailing and ground anchors
Week-12: use of geosynthetics in various ground improvement problems