Overview

It has been observed that guite often Highway pavements constructed over weak foundations/sub soil/ fill material conditions miserably fail due to settlement and shear failure under heavy structural loads. In such situations, soil needs to be improved for overall safety and stability of Highway. Different techniques of ground improvement are used to modify and achieve the different geotechnical characteristics i.e. Increase in Bearing capacity; Increase in shear strength; Reduction in total and differential settlements: decrease in liquefaction potential of soil, reduction of swelling and cracking of soils; Improvement in drainage etc. Choice of a ground improvement technique depend on in situ geotechnical characteristics of sub soil, fill material; Drainage conditions and most importantly, the cost and time available to complete the project. This webinar focusses on different types of Ground improvement techniques viz. Stone columns: Prefabricated Vertical Drains. vacuum consolidation; and TAM Grouting. It also covers ground stabilization with soil nailing and Reinforced Earth Wall techniques.

Registration

Registration is free but limited to 500 participants only. Visit https://forms.gle/nRy4wGov7EcVvbDt5 to fill up the form for registration. You may also get the link for this form by scanning the adjacent QR code.



In case of any technical difficulty, the details for registration can be send to gtewebinar@gmail.com for completing the registration. Certificate of Participation will be issued to all the attendees.

INTERNATIONAL WEBINAR

Ground Improvement Techniques for Highway Construction

> MAY 29 – 30, 2020 10.00 -14.00 (IST)



Organized by
Geotechnical Engineering Division
CSIR-Central Road Research Institute
New Delhi, India

Supporters



















CONTACT DETAILS

Dr. Vasant Havanagi Chief Scientist, GE Division, CSIR-CRRI Mob: +91 9911378492 Email: <u>gtewebinar@gmail.com</u> vasanthavanagi64@gmail.com

Ms. Parvathi G S
Senior Scientist, GE Division, CSIR-CRRI
Mob: +91 8171503754
Email: gtewebinar@gmail.com
parvathigsengg@gmail.com

Lecture Schedule

| 29 th May 2020 | Time (IST) | SESSION 1 <u>Panelists</u> Sh. Anant Kumar (ADG, Technical, CPWD, New Delhi) Sh. Ravi Sundaram (Director, Cengrs India Pvt. Ltd.) |
|---------------------------------|-----------------------------|--|
| | 10.00-10.05 | Welcome address - Prof. Satish Chandra, Director, CSIR-CRRI |
| | 10.05-10.10 | Introduction - Shri. U. K. Guru Vittal, Chief Scientist, CSIR-CRRI |
| | 10.10-10.55 | Road/Rail Underpass Construction by Box Jacking with Soil Nailing - Dr. Kanwar Singh, Senior Principal Scientist, CSIR-CRRI |
| | 10.55-11.05 | Panel discussion & Q&A |
| | 11.05-11.50 | Construction and monitoring of PVD installed high embankment on soft sub soil - Dr. A.K. Sinha, Principal Scientist, CSIR-CRRI |
| | 11.50-12.00 | Panel discussion & Q&A |
| | 12.00-12.45 | Vacuum consolidation: Design and case studies - Er. Jerome Racinais, Engineering Director, Menard, Nozay, France |
| | 12.45-12.55 | Panel discussion & Q&A |
| | 12.55- 13.40 | Design, construction and specifications for stone columns – Er. Vetriselvan Arumugam, Chief Engineering Manager, L&T GeoStructure, Chennai, India |
| | 13.40 -13.50 | Panel discussion & Q&A |
| 30 th May 2020 | Time (IST) | SESSION 2 <u>Panelists</u> Dr. Rajesh Sathiyamoorthy (Associate Prof., IIT Kanpur) Sh. Shahrokh Bagli, (CTO, Strata Geosystems India Pvt. Ltd.) |
| | 10.00-10.05 | Introduction - Dr Vasant G Havanagi, Chief Scientist, CSIR-CRRI |
| | 10.05-10.45 | Analysis and design of remedial measures for distressed Reinforced earth Wall: Case studies - Smt. Parvathi G.S., Senior Scientist, CSIR-CRRI |
| | 10.45 -10.55 | Panel discussion & Q&A |
| | 10.55-11.40 | Challenges in Design and Construction of Tam Grouted Micropile Bridge - Shri. Nitin Goyal, Managing director, Spar Geo infra Pvt. Ltd., New Delhi, India |
| | 11.40 -11.50 | Panel discussion & Q&A |
| | 11.50-12.35 12.35- 12.45 | Case Studies of Ground Improvement –CRRI's Experiences- Dr. P. S. Prasad, Senior Principal Scientist, CSIR-CRRI Panel discussion & Q&A |
| | 12.45- 12.50 | Vote of thanks: Dr Pankaj Gupta, HOD (Geotechnical Division), CSIR- CRRI |



Organizing Committee

Patron & Chairman

Prof. Satish Chandra Director, CRRI

Organizing Secretary

Dr. Vasant Havanagi Chief Scientist, CRRI

Co-Organizing Secretary

Smt. Parvathi G. S. Sr. Scientist, CRRI

HOD (GE Division)

Dr. Pankaj Gupta Sr. Pr. Scientist, CRRI

Members

Shri. U. K. Guru Vittal, Chief Scientist, CRRI

Dr. Kanwar Singh, Sr. Pr. Scientist, CRRI

Scientist, CRRI

Dr. P. S. Prasad, Sr. Pr. Scientist, CRRI

Scientist, CRRI

Dr. Ambrish Saurikhia, Pr. Scientist, CRRI

Dr. A.K. Sinha, Pr.

Scientist, CRRI

Shri. Mariyappan, Sr. T.O.

 ${\rm HOD}\;({\rm CCN}),\,{\rm CRRI}$