A Post Report

TEQIP-III RTU (ATU) SPONSORED

One Week Online Faculty

Development Programme

On

"Geotechnical Assessment with Industrial Exposure"

February 15-19, 2021

RTU Event Coordinators

Dr. Vaibhaw Garg, Associate Professor,
Department of Civil Engineering, RTU, Kota.
Prof. J.K. Sharma, Professor,
Department of Civil Engineering, RTU, Kota.

Host Institute Coordinator

Dr. Pooja Gupta, Associate Professor
Department of Civil Engineering, PIET, Jaipur

Host Institute Co-Coordinator

Mr. Mahendra Kumar Singar, Assistant Professor
Department of Civil Engineering, PIET, Jaipur

Organized by

Department of Civil Engineering

POORNIMA
INSTITUTE OF ENGINEERING & TECHNOLOGY

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • Accredited by NAAC and NBA

Rajasthan Technical University, Kota
Rajasthan- (India)

Contents

About the Faculty Development Programme:

Brief Statement of Objectives of One week FDP:

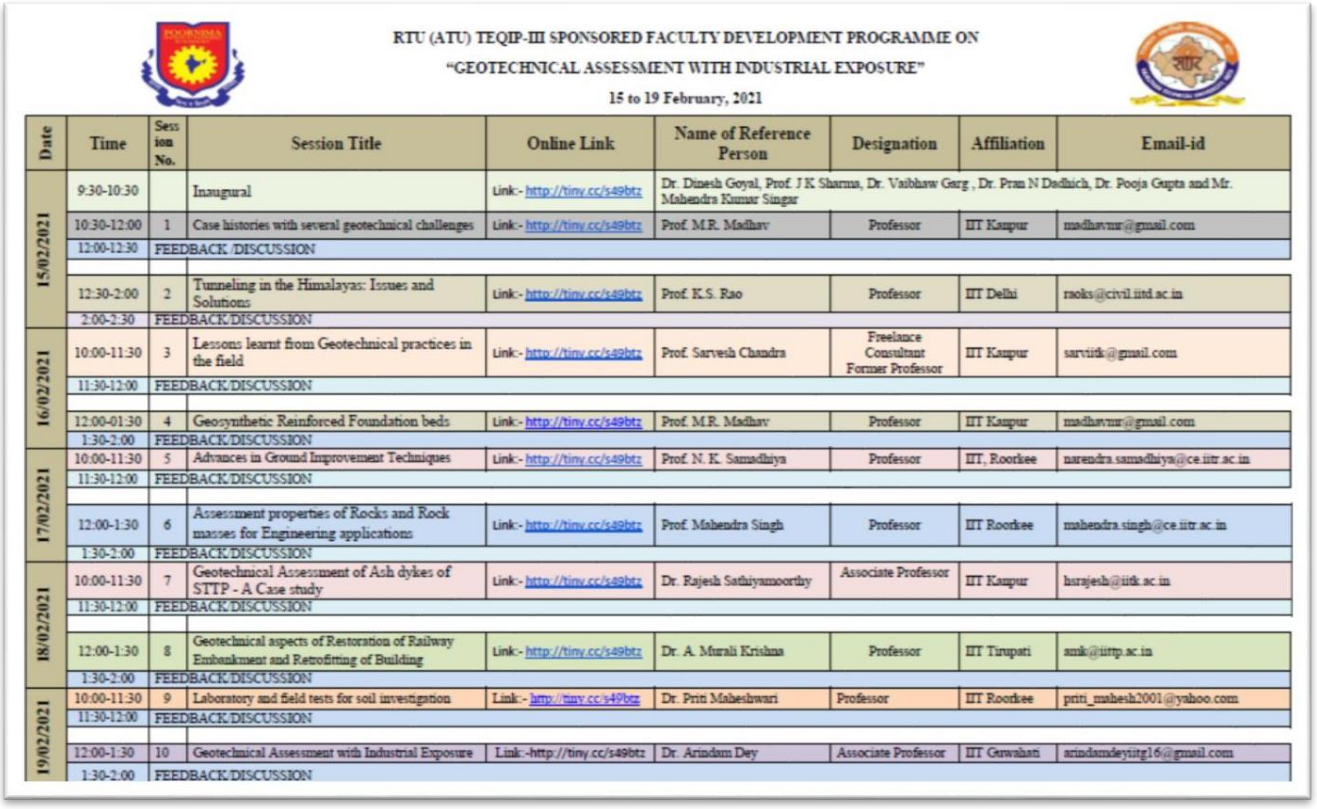
This program is organized to bring a positive transformation among the faculty members, research scholars and participants from industries towards research work, and enabling participants to develop competence in understanding recent advances in the proposed topic. From this FDP it is clearly understood that a geotechnical assessment is often needed to identify the type of earth that exists below the ground. This FDP really helped in determining the best foundation for the structure. This course promoted interaction with professionals working in specific areas of research in Academic Institutions, Research Labs, and Industries. Also, exposure is provided to the audience from renowned speakers on the latest developments in Academia, Research and Industry.

The major focus areas covered are:

.

- Assessment of Properties of Rocks and Rock masses
- Laboratory testing and in-situ testing
- Manage impacts from mine subsidence and other geotechnical risks.
- Consideration of future land use zones to reflect appropriate levels of protection for ridges, waterways and other natural features.
- Foundations and Soft Ground Engineering Challenges
- Industrial exposure

Experts Details with Session Plan:



RTU (ATU) TEQIP-III SPONSORED FACULTY DEVELOPMENT PROGRAMME ON
"GEOTECHNICAL ASSESSMENT WITH INDUSTRIAL EXPOSURE"
15 to 19 February, 2021

Date	Time	Session No.	Session Title	Online Link	Name of Reference Person	Designation	Affiliation	Email-id
15/02/2021	9:30-10:30		Inaugural	Link:- http://tiny.cc/s49btz	Dr. Dinesh Goyal, Prof. J K Sharma, Dr. Vaibhaw Garg , Dr. Pran N Dadhich, Dr. Pooja Gupta and Mr. Mahendra Kumar Singar			
	10:30-12:00	1	Case histories with several geotechnical challenges	Link:- http://tiny.cc/s49btz	Prof. M.R. Madhav	Professor	IIT Kanpur	madhavmr@gmail.com
	12:00-12:30	FEEDBACK /DISCUSSION						
	12:30-2:00	2	Tunneling in the Himalayas: Issues and Solutions	Link:- http://tiny.cc/s49btz	Prof. K.S. Rao	Professor	IIT Delhi	raoks@civil.iitd.ac.in
	2:00-2:30	FEEDBACK/DISCUSSION						
16/02/2021	10:00-11:30	3	Lessons learnt from Geotechnical practices in the field	Link:- http://tiny.cc/s49btz	Prof. Sarvesh Chandra	Freelance Consultant Former Professor	IIT Kanpur	sarvitk@gmail.com
	11:30-12:00	FEEDBACK/DISCUSSION						
	12:00-01:30	4	Geosynthetic Reinforced Foundation beds	Link:- http://tiny.cc/s49btz	Prof. M.R. Madhav	Professor	IIT Kanpur	madhavmr@gmail.com
	1:30-2:00	FEEDBACK/DISCUSSION						
17/02/2021	10:00-11:30	5	Advances in Ground Improvement Techniques	Link:- http://tiny.cc/s49btz	Prof. N. K. Samadhiya	Professor	IIT, Roorkee	narendra.samadhiya@ce.iitr.ac.in
	11:30-12:00	FEEDBACK/DISCUSSION						
	12:00-1:30	6	Assessment properties of Rocks and Rock masses for Engineering applications	Link:- http://tiny.cc/s49btz	Prof. Mahendra Singh	Professor	IIT Roorkee	mahendra.singh@ce.iitr.ac.in
	1:30-2:00	FEEDBACK/DISCUSSION						
18/02/2021	10:00-11:30	7	Geotechnical Assessment of Ash dykes of STTP - A Case study	Link:- http://tiny.cc/s49btz	Dr. Rajesh Sathiyamoorthy	Associate Professor	IIT Kanpur	hsrajesh@iitk.ac.in
	11:30-12:00	FEEDBACK/DISCUSSION						
	12:00-1:30	8	Geotechnical aspects of Restoration of Railway Embankment and Retrofitting of Building	Link:- http://tiny.cc/s49btz	Dr. A. Murali Krishna	Professor	IIT Tirupati	amk@iittp.ac.in
	1:30-2:00	FEEDBACK/DISCUSSION						
19/02/2021	10:00-11:30	9	Laboratory and field tests for soil investigation	Link:- http://tiny.cc/s49btz	Dr. Priti Maheshwari	Professor	IIT Roorkee	priti_mahesh2001@yahoo.com
	11:30-12:00	FEEDBACK/DISCUSSION						
	12:00-1:30	10	Geotechnical Assessment with Industrial Exposure	Link:-http://tiny.cc/s49btz	Dr. Arindam Dey	Associate Professor	IIT Guwahati	arindamdeyiitg16@gmail.com
	1:30-2:00	FEEDBACK/DISCUSSION						

1. DETAILS OF ONLINESESSION

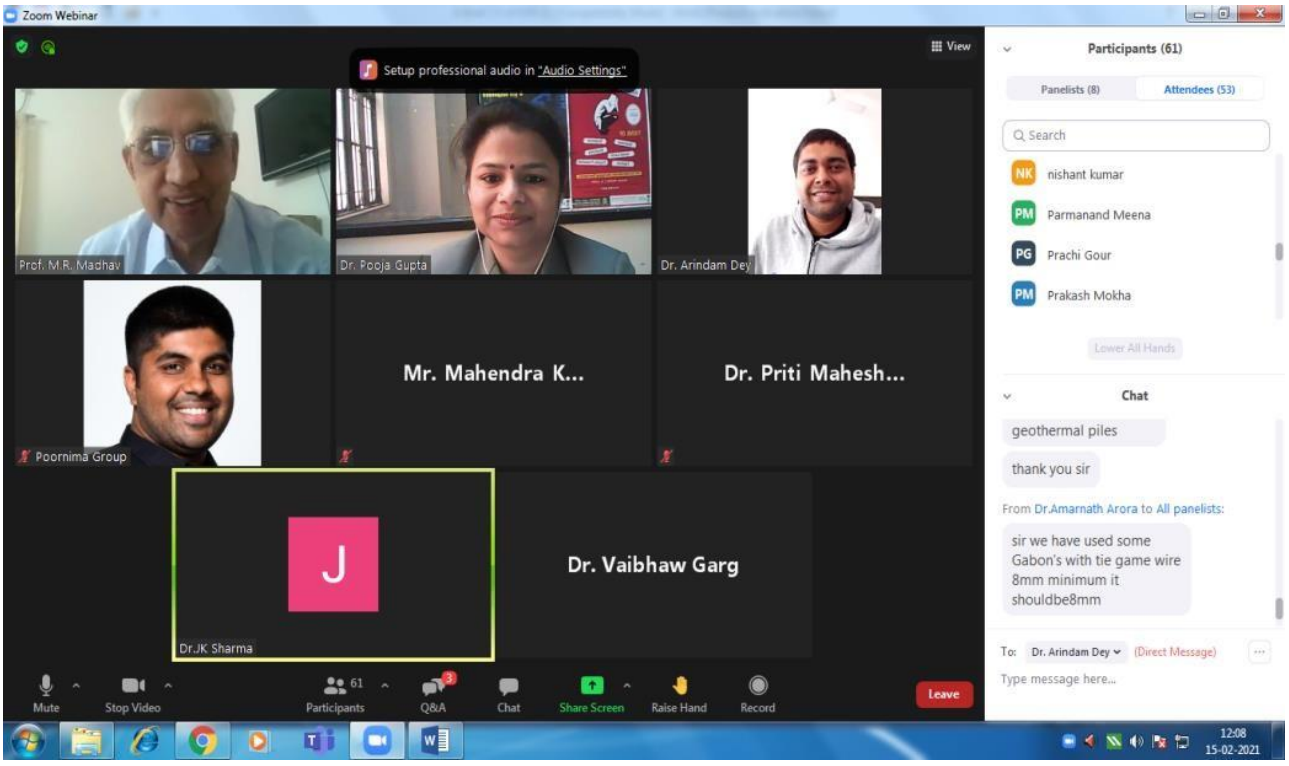
Session-1 Day-1 Date: - 15 February2021

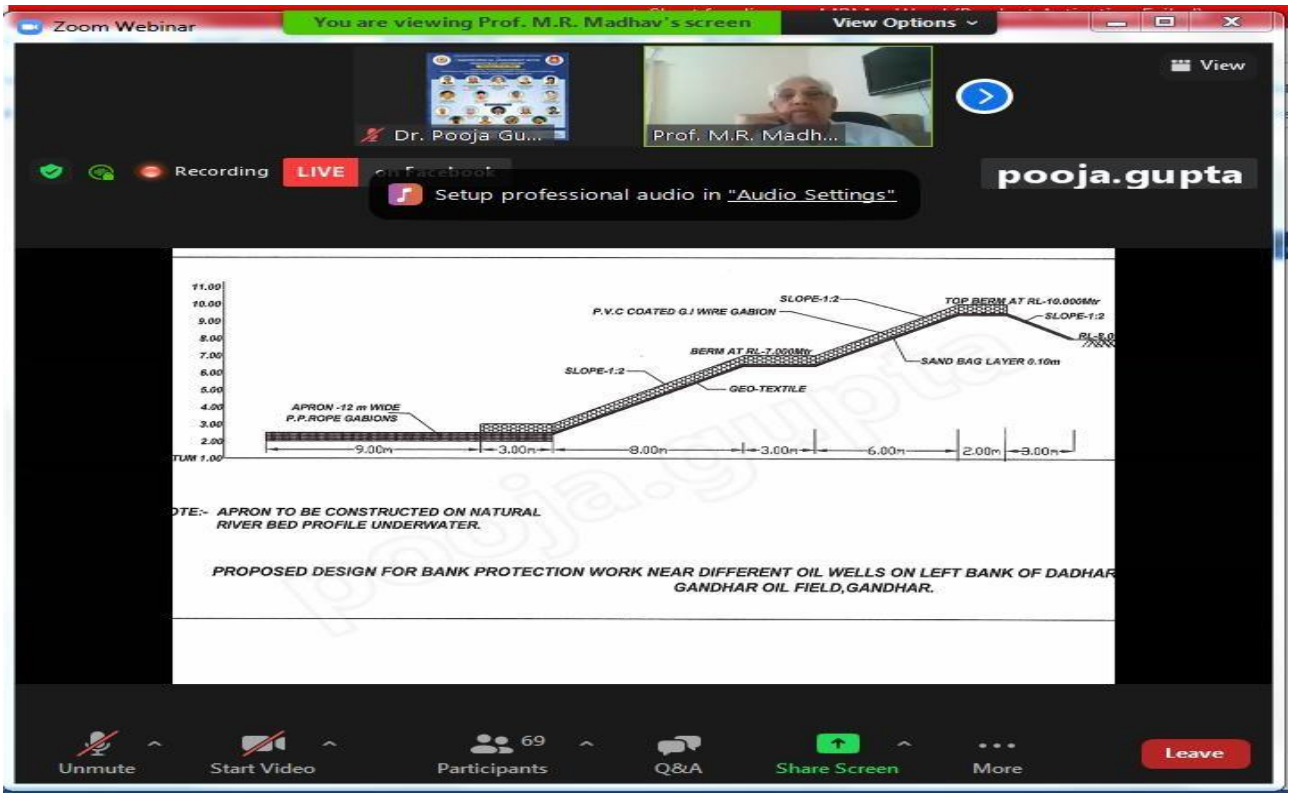
Session Title: Case histories with several geotechnical challenges

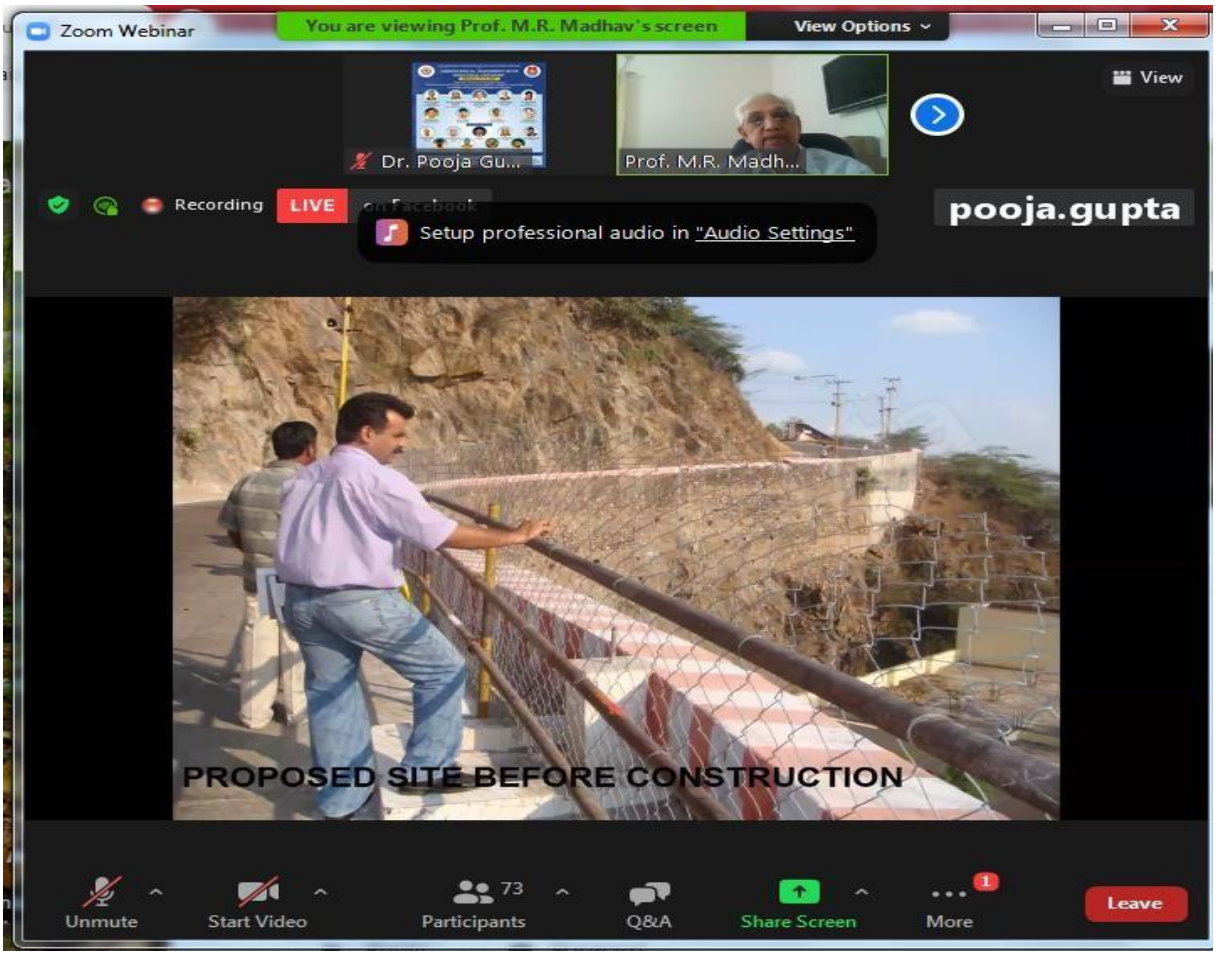
Name of Expert: -Prof. M. R. Madhav

Biography

Prof. M. R. Madhav, Institute Fellow, IIT, Kanpur, AICTE-INAE Distinguished Visiting Professor, Visiting Professor, IIT, Hyd. & Professor Emeritus, J.N.T.U, Hyderabad, Resource Person, RGUKT, and Advisor/Consultant to several organizations, is well known internationally as Researcher, Teacher and Consultant and has contributed significantly to the Practice of Geotechnical Engineering over the last five decades. worked at several universities abroad – Australia, Canada, Japan, Belgium, UK, etc. Prof. Madhav's research interests span the whole gamut of Geotechnical Engineering. He guided more than 45 doctoral and several master's theses and final year projects. He co-edited books entitled 'Lowlands - Development and Management' and 'Foundations and Soft Ground Engineering Challenges in Mekong Delta', and authored more than 600 publications in refereed international and national journals and conferences. Prof. Madhav is Fellow of Ind. National Academy of Engrg, Ind. Geotechnical Soc. &Instn. of Engrs (India), President, Int. Assoc. of Lowland Tech. (2010-18), Vice President for Asia, Int. Soc. of Soil Mech. &Geotech. Engrg., (2005-2009) recipient of Keucklemann, Prof. Mehra Research, Pundit Jawaharlal Nehru Birth Centenary Research Awards, and Doctor of Science of the Indian Institute of Science, Distinction in Engineering Technology from the Central Board of Irrigation and Power, Bharat Ratna M Visweswaraya Award, Gopal Ranjan Research Award of IIT, Roorkee, IGS – M S Jain award, Vishwakarma Award for Academic Excellence from Construction Industry Development Council, Dinesh Mohan Award from Ind. Geotechnical Society, Distinguished Teacher award from IIT, Kanpur, Distinguished Alumnus award from I.I.Sc., Bangalore, Institute Fellow, IIT, Kanpur, Outstanding Reviewer Award from IJGM, ASCE, etc.




Zoom Webinar
You are viewing Prof. M.R. Madhav's screen
View Options
View
Dr. Pooja Gu...
Prof. M.R. Madh...
Recording
LIVE
on Facebook
Setup professional audio in "Audio Settings"
pooja.gupta
SLOPE-1:2
TOP BERM AT RL-10.000Mtr
P.V.C COATED G.I WIRE GABION
SLOPE-1:2
BERM AT RL-7.000Mtr
SAND BAG LAYER 0.10m
SLOPE-1:2
GEO-TEXTILE
APRON -12 m WIDE
P.P.ROPE GABIONS
9.00m
3.00m
8.00m
3.00m
6.00m
2.00m
3.00m
APRON TO BE CONSTRUCTED ON NATURAL
RIVER BED PROFILE UNDERWATER.
PROPOSED DESIGN FOR BANK PROTECTION WORK NEAR DIFFERENT OIL WELLS ON LEFT BANK OF DADHAR
GANDHAR OIL FIELD,GANDHAR.
Unmute
Start Video
69
Participants
Q&A
Share Screen
More
Leave


Zoom Webinar
You are viewing Prof. M.R. Madhav's screen
View Options
View
Dr. Pooja Gu...
Prof. M.R. Madh...
Recording
LIVE
on Facebook
Setup professional audio in "Audio Settings"
pooja.gupta
PROPOSED SITE BEFORE CONSTRUCTION
Unmute
Start Video
73
Participants
Q&A
Share Screen
More
1
Leave

Session-2 Day-1 Date: - 15 February2021

Session Title:- Tunneling in the Himalayas: Issues and Solutions

Name of Expert: -Prof. K.S. Rao, Professor, IIT Delhi

Biography

Prof. K. S. Rao**,** after receiving M.Tech (IIT Kanpur) and Ph. D (IIT Delhi) joined the faculty of Civil Engineering, IIT Delhi in 1986. His academics and research spanning over 40 yrs has been on engineering behaviour of rockmass, stability of slopes, underground structures, foundations, numerical modeling and seismic microzonation of mega cities.

An established teacher, researcher and active consultant, ProfRao has supervised 25 Ph.D, and 175 M. Tech theses and currently guiding 14 doctoral students. He is the recipient of IGS-Prof Leonards best Ph.D thesis award, Diamond jubilee award and 20 other IGS and ISRMTT best research awards.

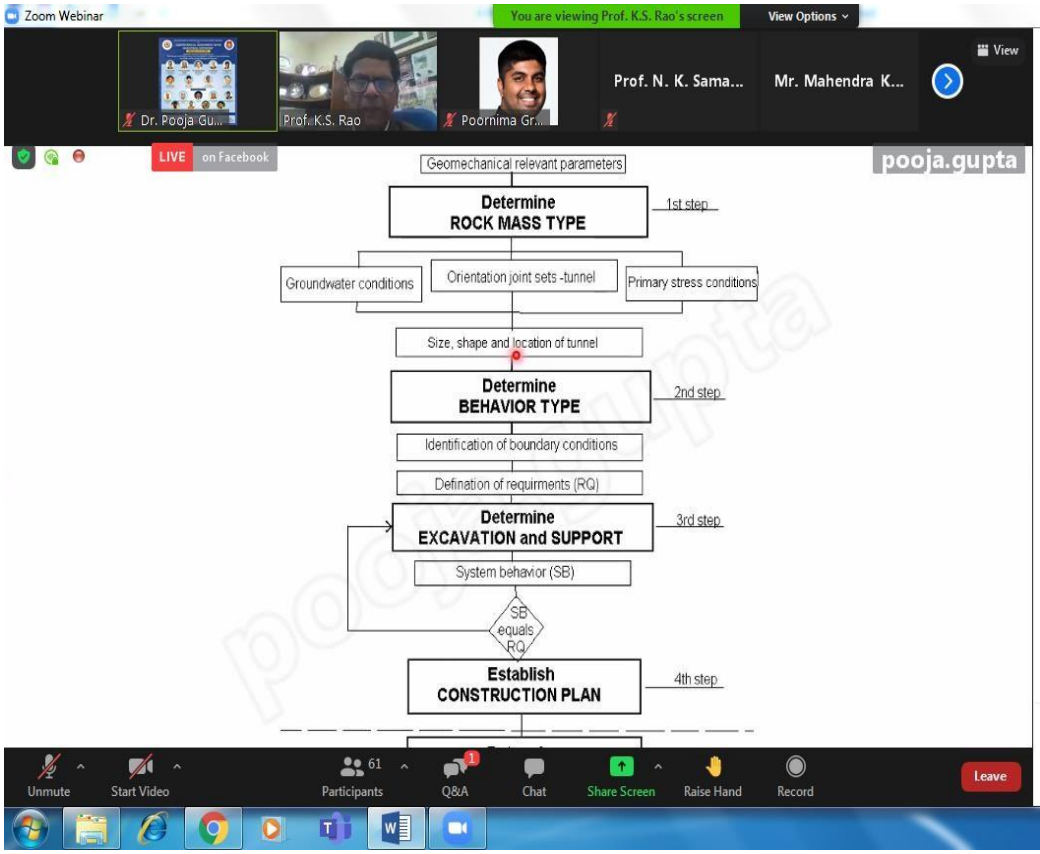
A prolific writer, Prof Rao published 350 technical papers in national and international journals and conferences. He has been the Principal investigator of 12 sponsored research projects.

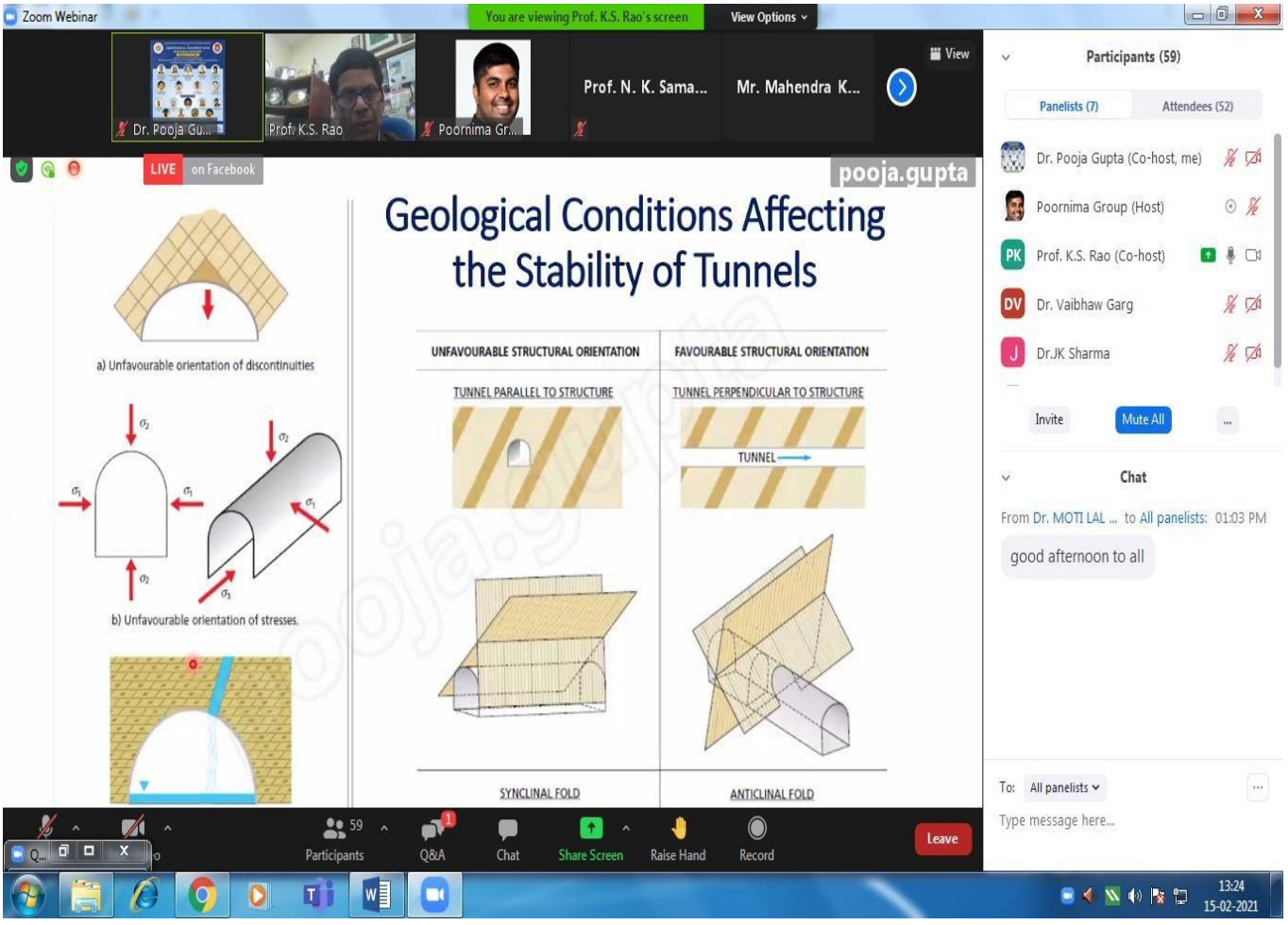
Prof Rao designed and developed a large-scale Polyaxial facility, Static and Cyclic Direct shear apparatus, Impact and Creep testing facilities at IIT Delhi. A large scale direct shear testing facility for mine dump material was established at CMPDI, Ranchi under his technical guidance.

Prof Rao is the Honorary Fellow of Indian Geotechnical Society and contributed extensively to the growth of IGS for more than 25 yrs in various capacities. He was the Honorary Secretary of the IGS for 10 yrs and managed it very professionally.Prof Rao has been the Editor of the IGJ and IGS News. He was the Jt. Organizing Secretary and Organizing Secretary for highly successful 13th ICSMFE, (1994) and 13thARC, (2008) conferences. He was the President of Indian Geotechnical Society and President of Indian Society of Engineering Geology for the term 2011-12and 2018-19 respectively. For his overall contributions he was awarded the “Lifetime Achievement Award in 2016 by IGS Delhi Chapter.

Prof. Rao provided solutions for more than 350 consultancies in the areas of Soil, Rock and Earthquake Geotechnical Engineering. His recent Geotechnical modeling work for assessing the stability of Chenab and Anjikhad bridge abutments has cleared the way for the construction of Jammu – Baramula Rail link of National importance. He is the consultant for Rohtang, Z-Morh and Zojila tunnels.

Prof. Rao delivered the 41st IGS Annual Lecture and received Kueckelman award for the year 2020.


Zoom Webinar
You are viewing Prof. K.S. Rao's screen
View Options
Dr. Pooja Gu...
Prof. K.S. Rao
Poornima Gr...
Prof. N. K. Sama...
Mr. Mahendra K...
View
LIVE on Facebook
pooja.gupta
Geomechanical relevant parameters
Determine
ROCK MASS TYPE
1st step
Groundwater conditions
Orientation joint sets -tunnel
Primary stress conditions
Size, shape and location of tunnel
Determine
BEHAVIOR TYPE
2nd step
Identification of boundary conditions
Defination of requirments (RQ)
Determine
EXCAVATION and SUPPORT
3rd step
System behavior (SB)
SB equals RQ
Establish
CONSTRUCTION PLAN
4th step
Participants (61)
Panelists (7)
Attendees (54)
Search
Abhishek Wadke
ALTAF USMANI
ASHISH SAINI
Ashish Solanki
Lower All Hands
Chat
good afternoon to all
From Me to All panelists:
https://forms.gle/bCkoN9R2v2M2vNhF8
Participants please fill the feedback link, so that attendance can be marked.
To: All panelists
Type message here...
Solve PC issues: 1 important message
2 total messages
Unmute
Start Video
Participants
Q&A
Chat
Share Screen
Raise Hand
Record
Leave
13:41
15-02-2021


Zoom Webinar
You are viewing Prof. K.S. Rao's screen
View Options
Dr. Pooja Gu...
Prof. K.S. Rao
Poornima Gr...
Prof. N. K. Sama...
Mr. Mahendra K...
View
LIVE on Facebook
pooja.gupta
Geological Conditions Affecting the Stability of Tunnels
a) Unfavourable orientation of discontinuities
b) Unfavourable orientation of stresses.
UNFAVOURABLE STRUCTURAL ORIENTATION
FAVOURABLE STRUCTURAL ORIENTATION
TUNNEL PARALLEL TO STRUCTURE
TUNNEL PERPENDICULAR TO STRUCTURE
TUNNEL
SYNCLINAL FOLD
ANTICLINAL FOLD
Participants (59)
Panelists (7)
Attendees (52)
Dr. Pooja Gupta (Co-host, me)
Poornima Group (Host)
Prof. K.S. Rao (Co-host)
Dr. Vaibhaw Garg
Dr.JK Sharma
Invite
Mute All
Chat
From Dr. MOTI LAL ... to All panelists: 01:03 PM
good afternoon to all
To: All panelists
Type message here...
Participants
Q&A
Chat
Share Screen
Raise Hand
Record
Leave
13:24
15-02-2021

Session-3 Day-2 Date: - 16 February2021

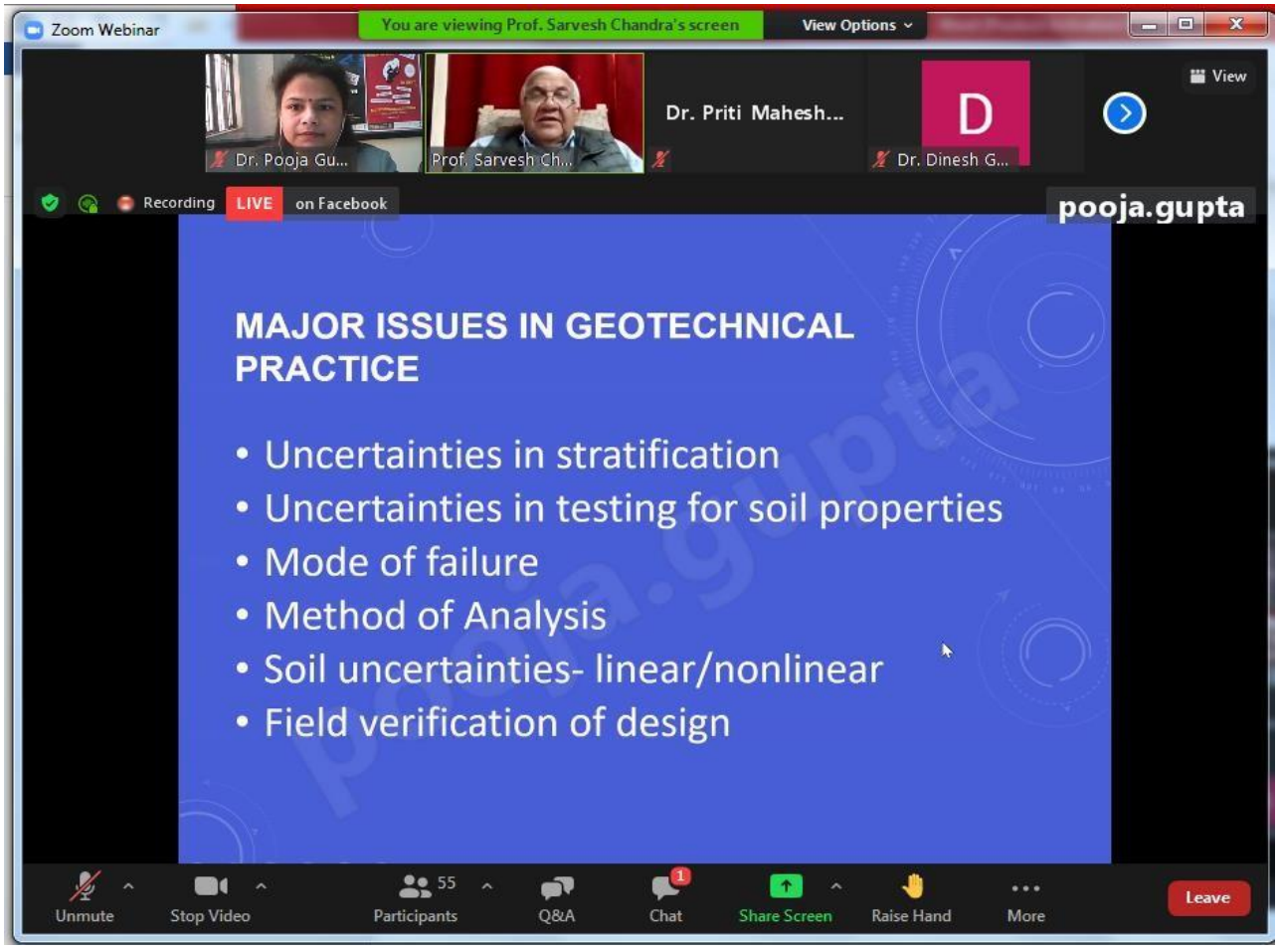
Session Title:-Lessons learnt from Geotechnical practices in the field

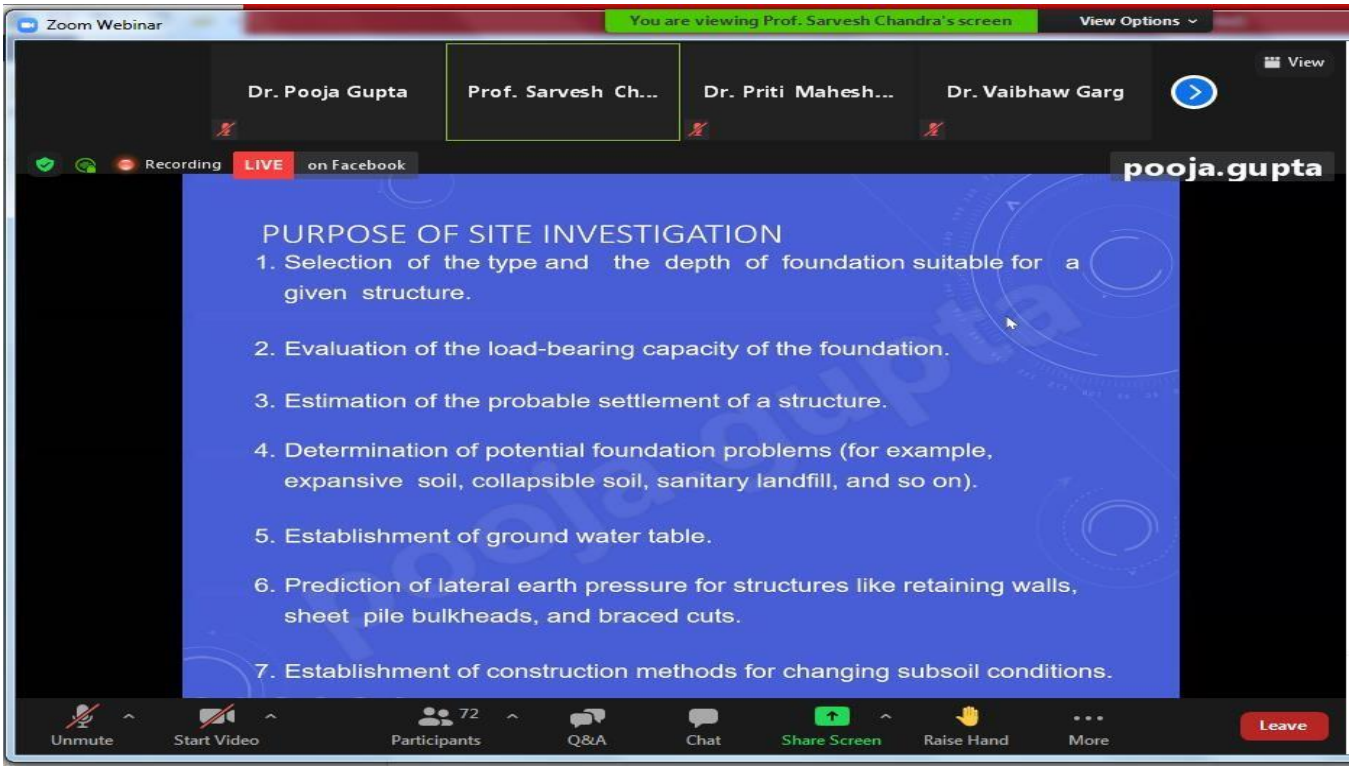
Name of Expert: Prof. Sarvesh Chandra, Former Professor, IIT Kanpur

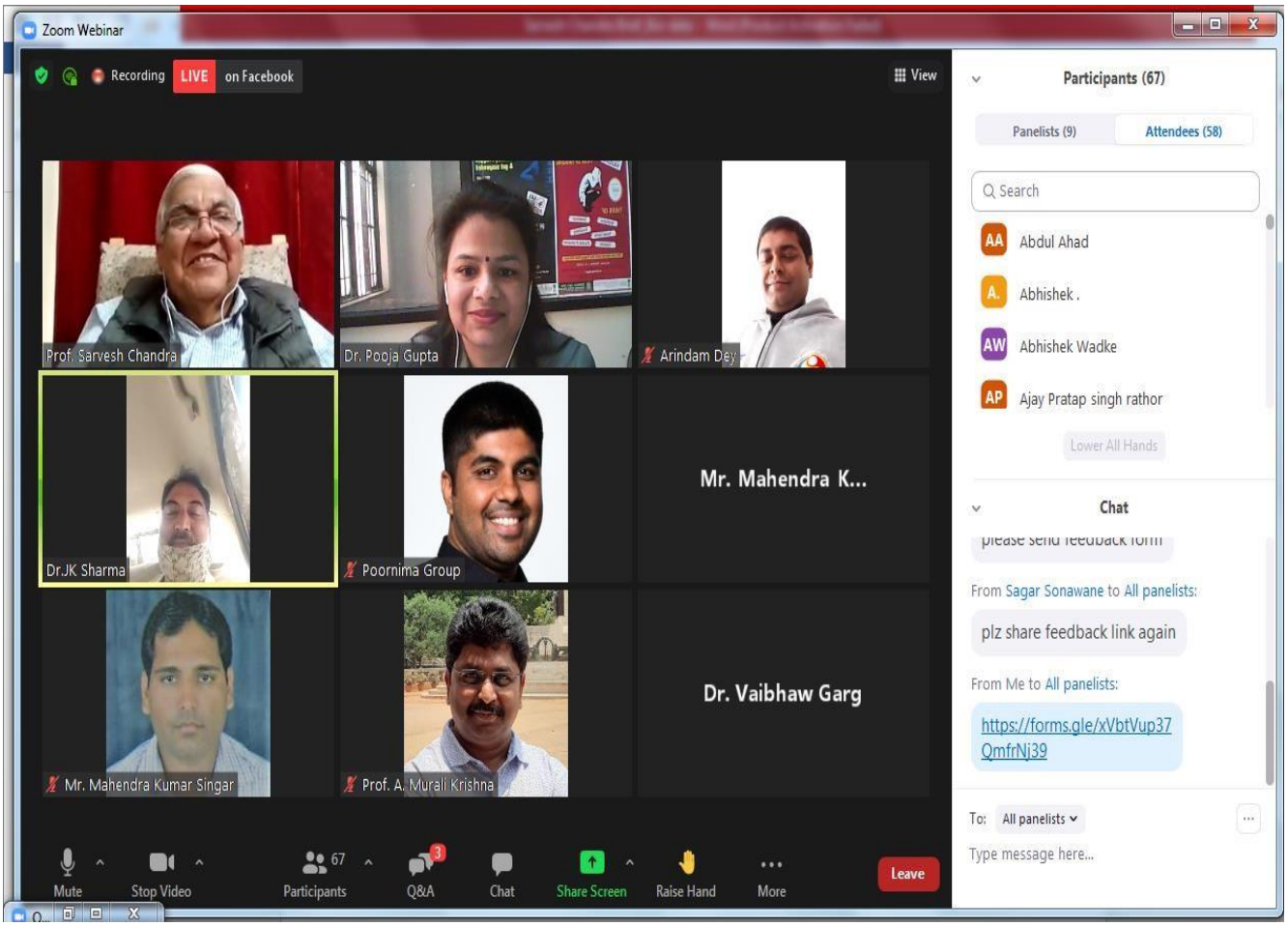
Biography

Dr. Sarvesh Chandra, Former Professor, Department of Civil Engineering, IIT Kanpur, has a long professional career. He started his teaching from University of Roorkee (now IIT Roorkee) in 1980 and joined Asian Institute of Technology, Bangkok in 1983. In 1987, he joined IIT Kanpur as faculty and served there for thirty years. He was an elected Member Board of Governors, IIT Kanpur for two years and took up various administrative responsibilities at IIT Kanpur during his tenure at IIT Kanpur. He has published extensively in national and international journals and conferences and supervised several doctoral and masters' students. His research interests include Soil – Structure Interaction, Modeling of Ground Improvement Techniques, Underground openings and Railway Track Modeling. He has been a co-editor of Indian Geotechnical Journal and has been a reviewer for many international journals. He held visiting positions at University of Karlsruhe, Germany, James Cook University, Townsville, Australia, Darmstadt University, Germany and University of Kwazalu Natal, Durban, South Africa. He has been involved with many consultancy assignments and has travelled extensively.

With this valuable information, I welcome Prof. Sarvesh Chandra in the current session of Faculty Development Programme. Welcome Sir.




Zoom Webinar
You are viewing Prof. Sarvesh Chandra's screen
View Options
View
Dr. Pooja Gupta
Prof. Sarvesh Ch...
Dr. Priti Mahesh...
Dr. Vaibhaw Garg
Recording
LIVE
on Facebook
pooja.gupta
PURPOSE OF SITE INVESTIGATION
1. Selection of the type and the depth of foundation suitable for a given structure.
2. Evaluation of the load-bearing capacity of the foundation.
3. Estimation of the probable settlement of a structure.
4. Determination of potential foundation problems (for example, expansive soil, collapsible soil, sanitary landfill, and so on).
5. Establishment of ground water table.
6. Prediction of lateral earth pressure for structures like retaining walls, sheet pile bulkheads, and braced cuts.
7. Establishment of construction methods for changing subsoil conditions.
Unmute
Start Video
72
Participants
Q&A
Chat
Share Screen
Raise Hand
More
Leave


Zoom Webinar
Recording
LIVE
on Facebook
View
Prof. Sarvesh Chandra
Dr. Pooja Gupta
Arindam Dey
Dr.JK Sharma
Poornima Group
Mr. Mahendra K...
Mr. Mahendra Kumar Singar
Prof. A. Murali Krishna
Dr. Vaibhaw Garg
Participants (67)
Panelists (9)
Attendees (58)
Search
Abdul Ahad
Abhishek .
Abhishek Wadke
Ajay Pratap singh rathor
Lower All Hands
Chat
From Sagar Sonawane to All panelists:
plz share feedback link again
From Me to All panelists:
https://forms.gle/xVbtVup37QmfrNj39
To: All panelists
Type message here...
Mute
Stop Video
67
Participants
Q&A
Chat
Share Screen
Raise Hand
More
Leave

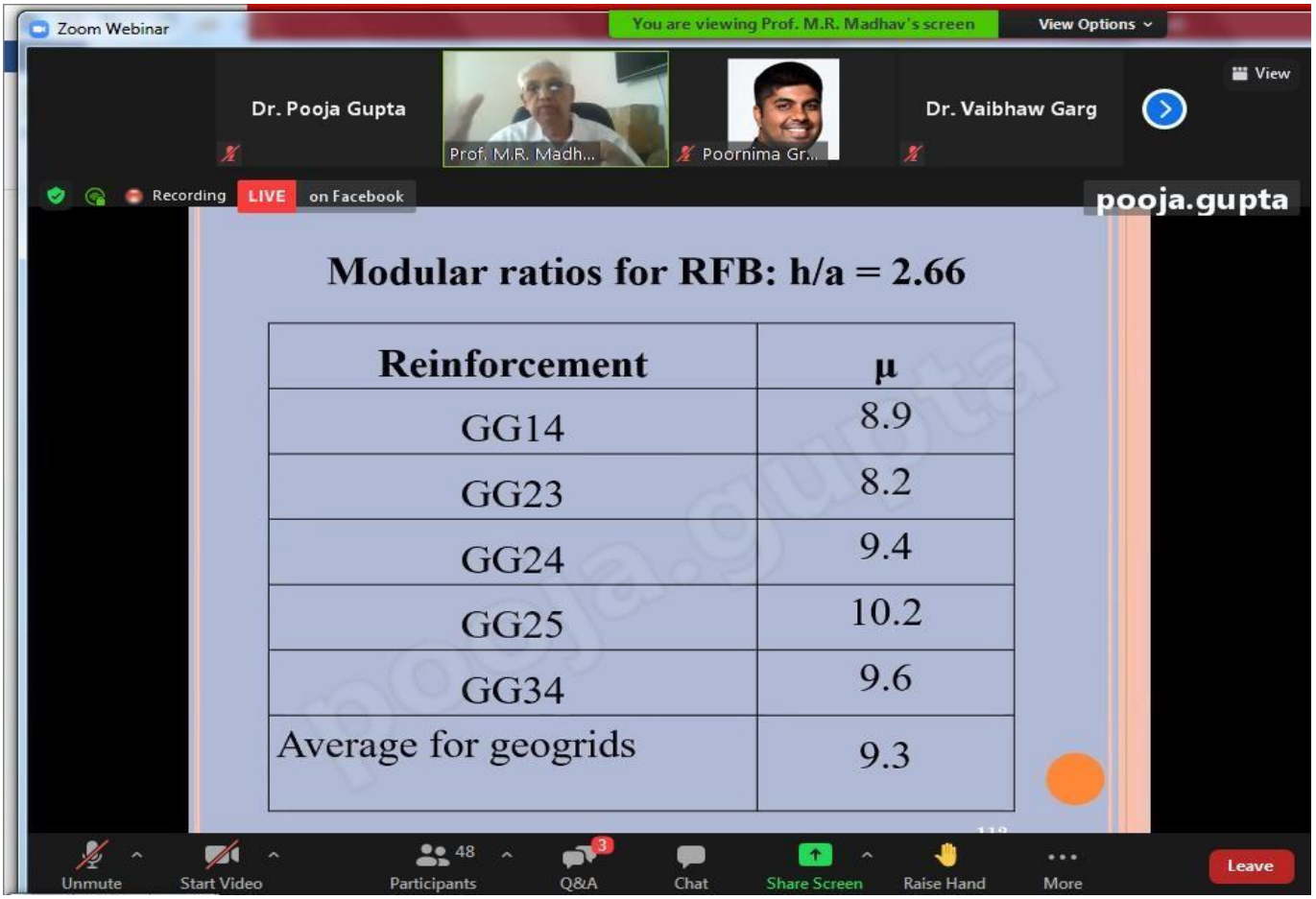
Session-4 Day-2 Date: 16 February2021

Session Title : Geosynthetic Reinforced Foundation beds

Name of Expert:- Prof. M.R. Madhav, Professor Emeritus, JNT University; Visiting Professor, IIT, Hyderabad, Former Professor, IIT Kanpur

Biography

Prof. M.R.Madhav, Institute Fellow, IIT, Kanpur, AICTE-INAE Distinguished Visiting Professor, Visiting Professor, IIT, Hyd. & Professor Emeritus, J.N.T.U, Hyderabad, Resource Person, RGUKT, and Advisor/Consultant to several organizations, is well known internationally as Researcher, Teacher and Consultant and has contributed significantly to the Practice of Geotechnical Engineering over the last five decades, worked at several universities abroad – Australia, Canada, Japan, Belgium, UK, etc. Prof. Madhav's research interests span the whole gamut of Geotechnical Engineering. He guided more than 45 doctoral and several master's theses and final year projects. He co-edited books entitled 'Lowlands - Development and Management' and 'Foundations and Soft Ground Engineering Challenges in Mekong Delta', and authored more than 600 publications in refereed international and national journals and conferences. Prof. Madhav is Fellow of Ind. National Academy of Engrg, Ind. Geotechnical Soc. &Instn. of Engrs (India), President, Int. Assoc. of Lowland Tech. (2010-18), Vice President for Asia, Int. Soc. of Soil Mech. & Geotech. Engrg., (2005-2009) recipient of Keucklemann, Prof. Mehra Research, Pundit Jawaharlal Nehru Birth Centenary Research Awards, and Doctor of Science of the Indian Institute of Science, Distinction in Engineering Technology from the Central Board of Irrigation and Power, Bharat Ratna M Visweswaraya Award, GopalRanjan Research Award of IIT, Roorkee, IGS – M S Jain award, Vishwakarma Award for Academic Excellence from Construction Industry Development Council, Dinesh Mohan Award from Ind. Geotechnical Society, Distinguished Teacher award from IIT, Kanpur, Distinguished Alumnus award from I.I.Sc., Bangalore, Institute Fellow, IIT, Kanpur, Outstanding Reviewer Award from IJGM, ASCE, etc.


Zoom Webinar
You are viewing Prof. M.R. Madhav's screen
View Options
Dr. Pooja Gupta
Prof. M.R. Madh...
Poornima Gr...
Dr. Vaibhaw Garg
View
Recording
LIVE
on Facebook
pooja.gupta
Modular ratios for RFB: h/a = 2.66
Reinforcement
μ
GG14
8.9
GG23
8.2
GG24
9.4
GG25
10.2
GG34
9.6
Average for geogrids
9.3
Unmute
Start Video
48
Participants
Q&A
3
Chat
Share Screen
Raise Hand
More
Leave


Zoom Webinar
You are viewing Prof. M.R. Madhav's screen
View Options
Dr. Pooja Gu...
Prof. M.R. Madh...
Setup professional audio in "Audio Settings"
Dr.JK Sharma
K. Sama...
Poornima Gr...
View
Recording
LIVE
on Facebook
pooja.gupta
Trial Columns
Unmute
Start Video
72
Participants
Q&A
Chat
Share Screen
Raise Hand
Record
Leave

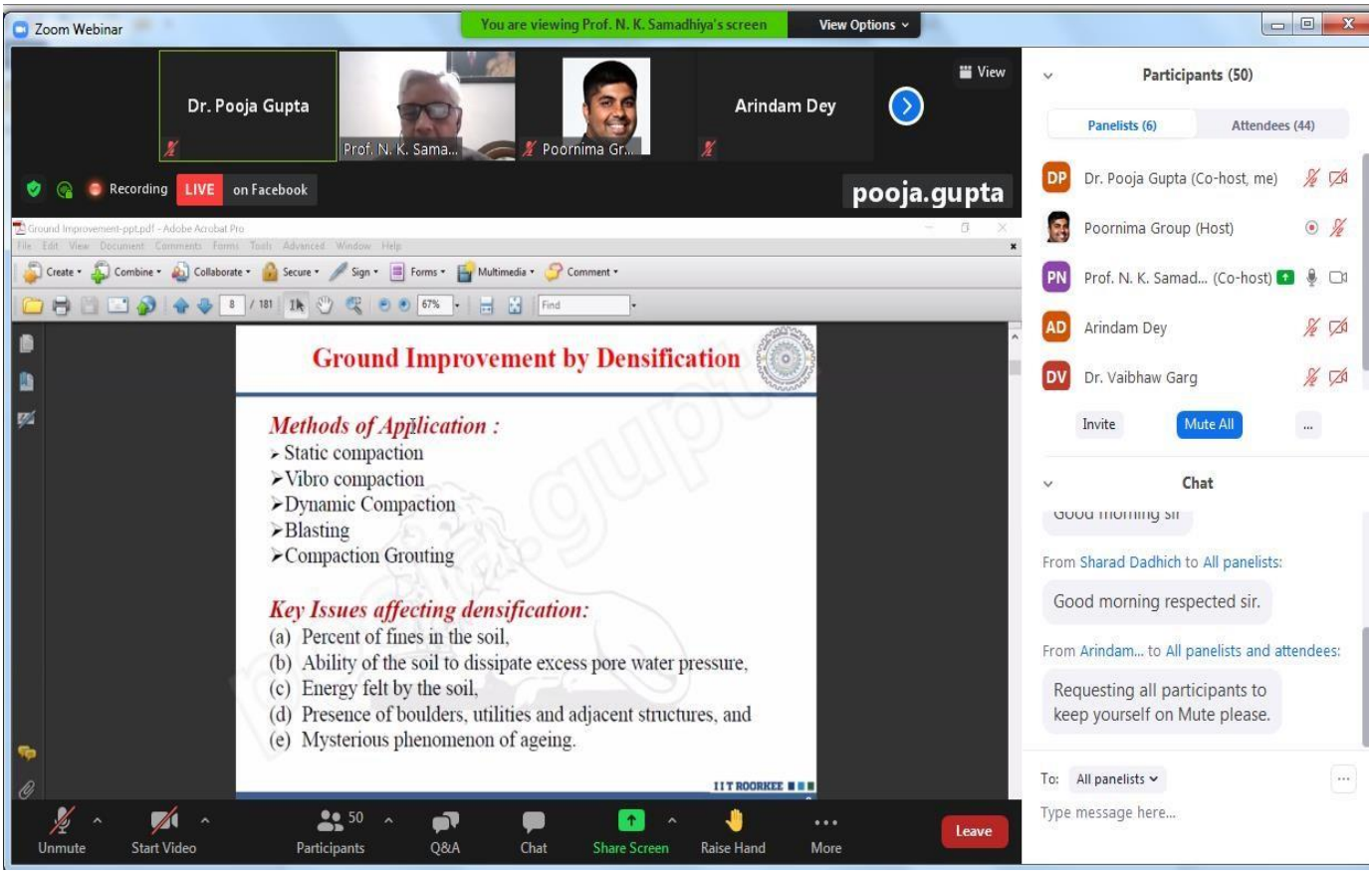
Session5 Day-3 Date: - 17 February2021

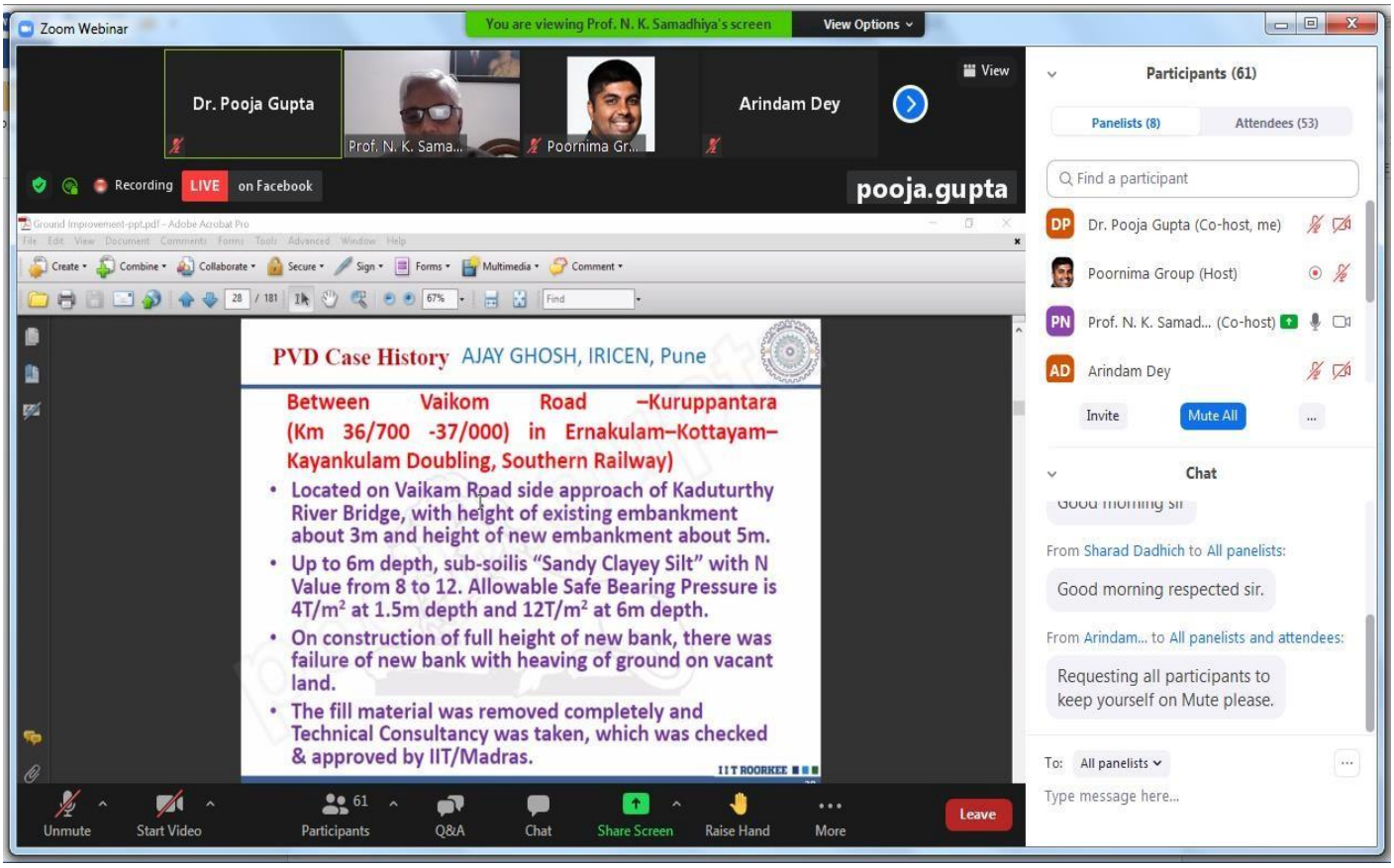
Session Title: Advances in Ground Improvement Techniques

Name of Speaker: Prof. N. K. Samadhiya, Professor, IIT, Roorkee

Biography

Dr. N.K. Samadhiya joined University of Roorkee (now IIT Roorkee) as Lecturer in 1990 and became Professor in 2007 in the Department of Civil Engineering, IIT Roorkee. He obtained Bachelor of Civil Engineering from GCET now NIT Raipur in 1984, Master of Geotechnical Engineering from GEC Jabalpur in 1987 and Ph.D. from University of Roorkee in 1999. He is actively involved in teaching, research and consultancy. He is the recipient of IGS-Prof. Leonard Biennial Prize (1999-2000) for best Ph.D. Thesis in Geotechnical Engg., several IGS Best Paper Awards and ISRMTT Best Research Award. The research papers numbering over 200 have been published in national and international journals and conferences. He has guided 15 Ph.D. theses and 80 M.Tech. dissertations so far and presently involved in the guidance of 6 Ph.D. and 2 M. Tech. dissertations. He served as Secretary of Indian Geotechnical Society, Roorkee Local Chapter (2001-04) and is presently the Chairman of Roorkee chapter. He has organized many conferences and workshops under the aegis of Indian Geotechnical Society. To name a few are National Workshop on Application of Rock Engineering in Nation's Development (2001), Indian Rock Conference (INDOROCK-2011), Indian Geotechnical Conferences (IGC-2003) and (IGC-2013), National Conference on Foundations and Retaining Structures (2007), CONMiG (2017) and very recently an international course on landslide LARAM (2020), all held in Roorkee. He is also a Fellow member of IGS and FIE (india) and member of several national and international professional societies including ISSMGE, ISRM, ISRMTT, ISCSMS, ISTE, ISET. Presently he is the Chairman of **BIS CED 48 (Rock Mechanics) committee,** Chairman, Indian Society for Construction, Materials & Structures (2017-2020) and an active member of TC 207-Task force of ISSMGE on preparation of the guidelines on Soil-Structure Interaction and Retaining Walls and represented IGS, India in the meetings held at Germany (Rostock, 2012), France (Paris, 2013), Russia (Saint Petersburg, 2014), Scotland (Edinburgh, 2015), Pune, 2015 and South Korea (Seoul, 2017). In recently concluded elections, he has been elected as President, Indian Geotechnical Society for the term 2021-2022.


Zoom Webinar
You are viewing Prof. N. K. Samadhiya's screen
View Options
Dr. Pooja Gupta
Prof. N. K. Sama...
Poornima Gr...
Arindam Dey
View
Recording
LIVE
on Facebook
pooja.gupta
Ground Improvement by Densification
Methods of Application :
Static compaction
Vibro compaction
Dynamic Compaction
Blasting
Compaction Grouting
Key Issues affecting densification:
(a) Percent of fines in the soil,
(b) Ability of the soil to dissipate excess pore water pressure,
(c) Energy felt by the soil,
(d) Presence of boulders, utilities and adjacent structures, and
(e) Mysterious phenomenon of ageing.
IIT ROORKEE
Participants (50)
Panelists (6)
Attendees (44)
Dr. Pooja Gupta (Co-host, me)
Poornima Group (Host)
Prof. N. K. Samad... (Co-host)
Arindam Dey
Dr. Vaibhaw Garg
Invite
Mute All
Chat
From Sharad Dadhich to All panelists:
Good morning respected sir.
From Arindam... to All panelists and attendees:
Requesting all participants to keep yourself on Mute please.
To: All panelists
Type message here...
Unmute
Start Video
Participants
Q&A
Chat
Share Screen
Raise Hand
More
Leave


Zoom Webinar
You are viewing Prof. N. K. Samadhiya's screen
View Options
Dr. Pooja Gupta
Prof. N. K. Sama...
Poornima Gr...
Arindam Dey
View
Recording
LIVE
on Facebook
pooja.gupta
PVD Case History AJAY GHOSH, IRICEN, Pune
Between Vaikom Road –Kuruppantara (Km 36/700 -37/000) in Ernakulam–Kottayam–Kayankulam Doubling, Southern Railway)
Located on Vaikam Road side approach of Kaduturthy River Bridge, with height of existing embankment about 3m and height of new embankment about 5m.
Up to 6m depth, sub-soilis "Sandy Clayey Silt" with N Value from 8 to 12. Allowable Safe Bearing Pressure is 4T/m² at 1.5m depth and 12T/m² at 6m depth.
On construction of full height of new bank, there was failure of new bank with heaving of ground on vacant land.
The fill material was removed completely and Technical Consultancy was taken, which was checked & approved by IIT/Madras.
IIT ROORKEE
Participants (61)
Panelists (8)
Attendees (53)
Find a participant
Dr. Pooja Gupta (Co-host, me)
Poornima Group (Host)
Prof. N. K. Samad... (Co-host)
Arindam Dey
Invite
Mute All
Chat
From Sharad Dadhich to All panelists:
Good morning respected sir.
From Arindam... to All panelists and attendees:
Requesting all participants to keep yourself on Mute please.
To: All panelists
Type message here...
Unmute
Start Video
Participants
Q&A
Chat
Share Screen
Raise Hand
More
Leave

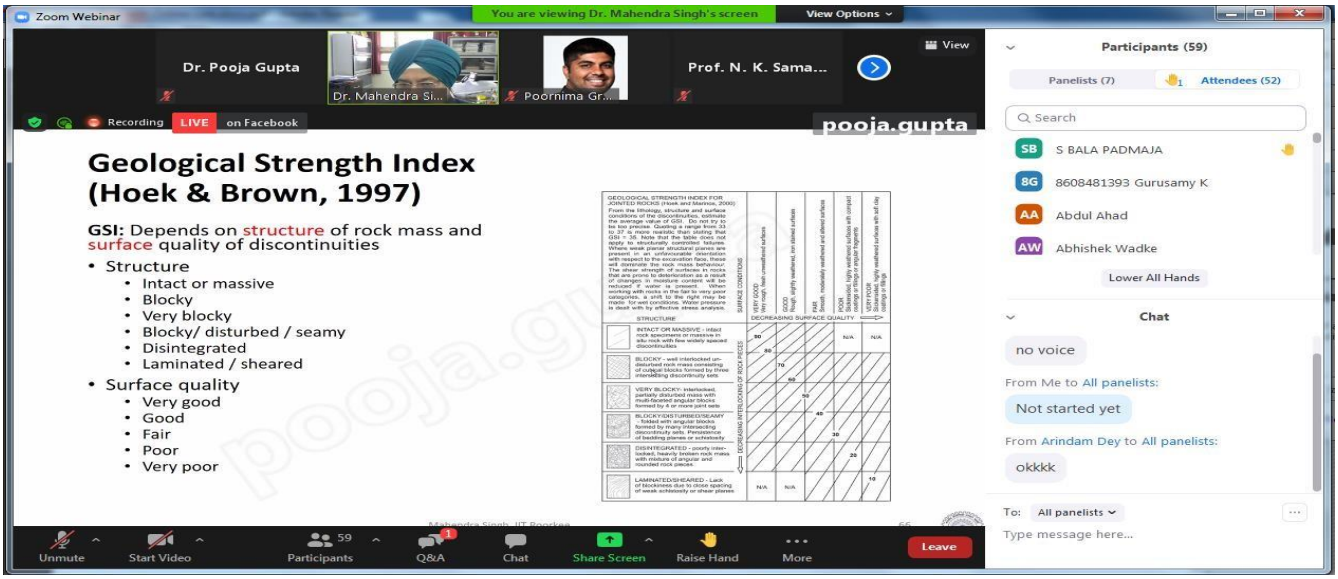
Session-6 Day-3 Date: - 17 February2021

Session Title: Assessment properties of Rocks and Rock masses for engineering applications

Name of Expert: -Prof. Mahendra Singh, Professor, IIT Roorkee

Biography

Dr.Mahendra Singh is currently a Professor of Civil Engineering at IIT Roorkee. He did B.E. in Civil Engineering in 1983 from Motilal Nehru Regional Engineering College (Now MNNIT), Allahabad; M. Tech. in Hydraulics and Water Resources Engineering in 1985 from IIT Kanpur; and PhD in Geotechnical Engineering (Rock Mechanics) in 1997 from IIT Delhi. Dr. Singh is actively engaged in teaching, research, consultancy and administrative activities. He has a wide experience of teaching variety of subjects related to Soil Mechanics, Rock Mechanics, Water Resources Engineering, Groundwater hydrology, Underground Excavations and Landslide analysis and control. His research interests include Soil and Rock slopes, Landslides, Engineering behaviour of jointed rocks and Underground structures. He has supervised ten PhD theses and more than 55 M. Tech dissertations. At present ten more PhD students are working under his supervision. He has authored more than 110 technical papers in various journals and conferences. Dr. Singh has been involved in more than 115 industrial projects as Principal-investigator and more than 50 projects as Co-PI. He has worked on several administrative posts e.g. Chief Warden, Chairman Estate & Works at IIT Rookee. He has been serving on various committees e.g. Expert Member of the committee on Spatial Disaster Risk Reduction (SDRR), for DST New Delhi, Technical Evaluation Committee (TEC) for evaluation of DPR of Landslide Mitigation, IS code revision committee for BIS New Delhi, National Executive Committee of IGS (2017-18, 2019-20, 2021-22) and Indian national group of ISRM. Currently he is the President of the Indian National Group of ISRM. He has organised more than 15 conferences, workshops and special training courses in various capacities. Some of these events include IGC-2002, IGC-2003, IGC-2013 and recently organised International Training Course on Landslide Risk Assessment and Mitigation (LARAM-India 2020) in collaboration with University of Salerno, Italy and NTNU Norway. Dr Singh has been instrumental in preparing guidance documents related to Rock Mass Properties and Landslide Disaster Mitigation and Management. These documents are freely available on IGS website.



Zoom Webinar — You are viewing Dr. Mahendra Singh's screen — View Options

Dr. Pooja Gupta | Dr. Mahendra Si... | Poornima Gr... | Arindam Dey | View

Recording LIVE on Facebook

pooja.gupta

Ramamurthy criterion

Ramamurthy (1993); Ramamurthy (1994); Ramamurthy and Arora (1994), Ramamurthy (2007)

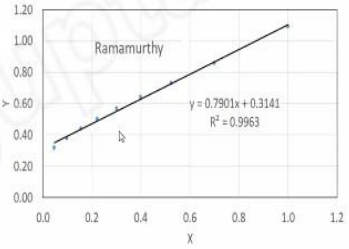
$$\left(\frac{\sigma_1-\sigma_3}{\sigma_3}\right)=B_i\left(\frac{\sigma_{ci}}{\sigma_3}\right)^{\alpha_i}$$

α_i, β_i are the criterion parameters.

$$\log_{10}\left(\frac{\sigma_1-\sigma_3}{\sigma_3}\right)=\log_{10}B_i+\alpha_i\log_{10}\left(\frac{\sigma_{ci}}{\sigma_3}\right)$$

$$Y=C+\alpha_i X$$

Criterion parameters: α_i= 0.79;
$\log_{10}$B=0.31 ⇒ B=2.04



Participants (58) — Panelists (7) — Attendees (51)

Search

8608481393 Gurusamy K
Abhishek Wadke
Ajay Pratap singh rathor
Anulekha Chakraborty

Lower All Hands

Chat

no voice

From Me to All panelists:
Not started yet

From Arindam Dey to All panelists:
okkkk

To: All panelists
Type message here...

Unmute | Start Video | 58 Participants | Q&A | Chat | Share Screen | Raise Hand | More | Leave

Zoom Webinar — You are viewing Dr. Mahendra Singh's screen — View Options

Dr. Pooja Gupta | Dr. Mahendra Si... | Poornima Gr... | Prof. N. K. Sama... | View

Recording LIVE on Facebook

pooja.gupta

Concluding remarks

- Assessment of properties of intact rock as well as discontinuities is important for structures in rocks.
- Intact rock properties may be obtained through laboratory tests and represent the upper bound values of rock mass properties.
- Depending on the field condition the failure may occur along the discontinuity of rock mass. As a consequence appropriate category of shear strength should be used.
- The strength behavior of joints as well as those of rock masses is highly non-linear, especially under low confinement and hence an appropriate strength criterion should be selected for the joint or rock mass.
- Unconfined compressive strength of rock mass (σ_{cj}) is an input parameter in many failure criteria. It may be obtained through empirical approaches.
- *It is strongly recommended some field testing should be incorporated in the project schedule depending on resources, time and importance of the project. These tests give idea about the deformability of the mass which is directly correlated with strength of the rock mass. Strength reduction factor as obtained from field test may be used conveniently to obtain a reasonable estimate on rock mass strength.*

Participants (59) — Panelists (7) — Attendees (52)

Search

S BALA PADMAJA
8608481393 Gurusamy K
Abdul Ahad
Abhishek Wadke

Lower All Hands

Chat

okkkk

From Me to All panelists:
https://forms.gle/SHtUDvvQrY6VpFGN9

Feedback link

To: All panelists
Type message here...

Unmute | Start Video | 59 Participants | Q&A | Chat | Share Screen | Raise Hand | More | Leave

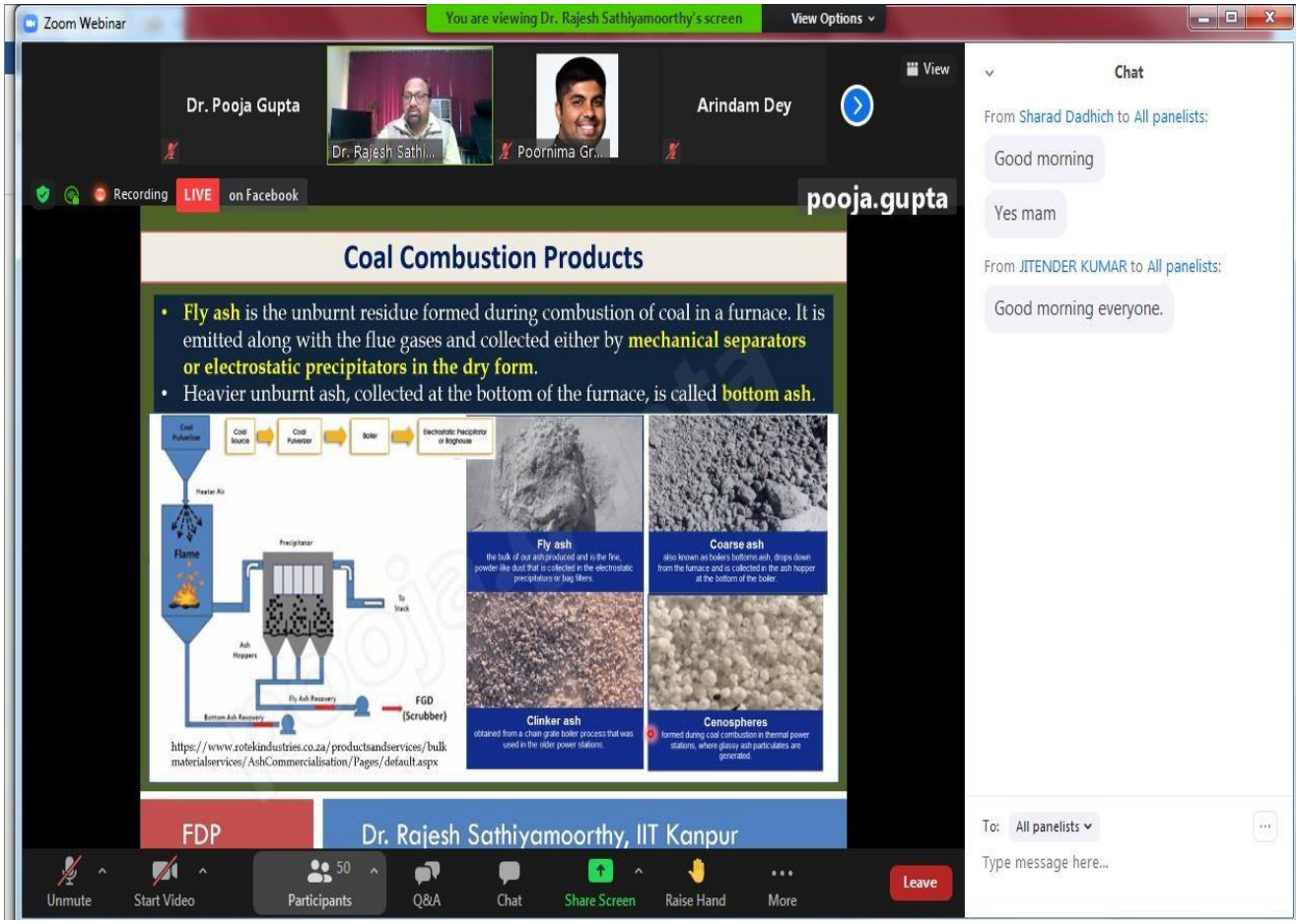
Session7 Day-4 Date: - 18 February2021

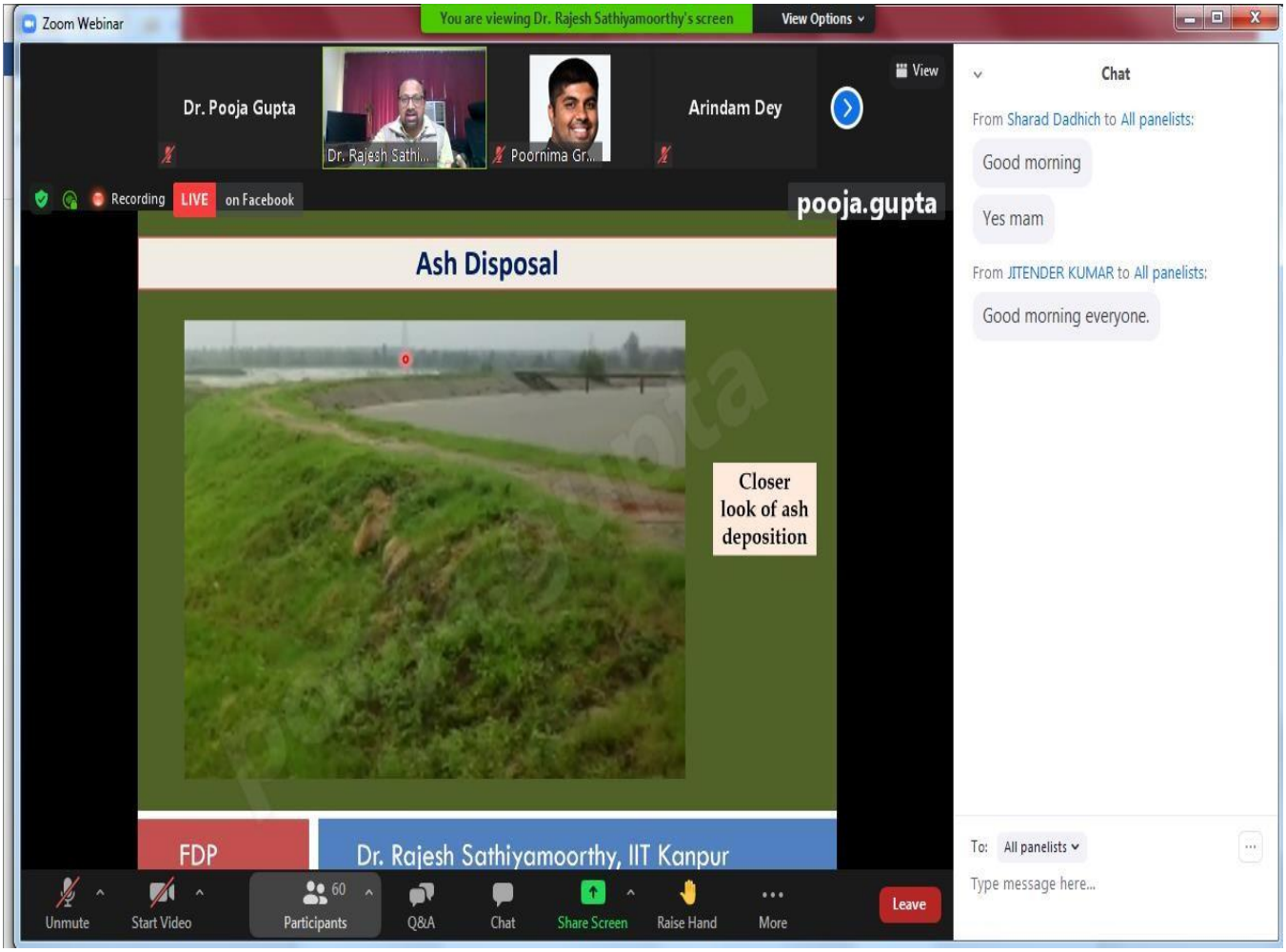
Session Title: Geotechnical Assessment of Ash dykes of STTP - A Case study

Name of Expert: Dr. Rajesh Sathiyamoorthy, Associate Professor, IIT Kanpur

Biography

Dr. Rajesh Sathiyamoorthy is an Associate Professor in the Department of Civil Engineering, Indian Institute of Technology Kanpur. He completed his Bachelors of Engineering degree from Vellore Engineering College, University of Madras in 2000 and Masters from College of Engineering Guindy, Anna University in 2002. After few years of consulting and academic experience, he joined PhD program at IIT Bombay and obtained his PhD in 2010. After his PhD, he worked as a Post-Doctoral research fellow for one year at LTHE, Grenoble, France and then joined IIT Kanpur in 2011. His research interest includes Hydro-Mechanical behavior of soft clays and unsaturated soils, Numerical and Physical modelling of geostructures, Application of Geosynthetics, and Tackling various Geoenvironmental problems. He has successfully completed four sponsored research projects and few consulting projects, and currently involved in three ongoing projects. He has published more than 80 technical papers in journals and conferences. He is a recipient IEI Young Engineers Award-2013 (Civil Engineering) from The Institution of Engineers (India), Recipient of Talented Young Scientist Award-2018, MST China, and Distinguished Alumni Award-2019 (Academic and Research) from VIT university. He is also a recipient of Prof. G. A. Leonard's Biannual Award-2011, IGS - Prof. A.V. Shroff Biannual Award-2013, International Geosynthetic Society Student Award - 2010, IITK Best Instructor Award (six times) and few best paper awards (IGS-Bangalore Chapter YGE Award-2015&2019, IGS-Prof. C.S. Desai Biennial Award-2020). He is a member of TC-106 (Unsaturated Soils) ISSMGE, Editorial board Environmental Geotechnics Journal (2016-18), ASCE, IEI, IGS, ISTE and ISG.




Zoom Webinar
You are viewing Dr. Rajesh Sathiyamoorthy's screen
View Options
Dr. Pooja Gupta
Dr. Rajesh Sathi...
Poornima Gr...
Arindam Dey
View
Recording
LIVE
on Facebook
pooja.gupta
Ash Disposal
Closer look of ash deposition
FDP
Dr. Rajesh Sathiyamoorthy, IIT Kanpur
Unmute
Start Video
Participants
60
Q&A
Chat
Share Screen
Raise Hand
More
Leave
Chat
From Sharad Dadhich to All panelists:
Good morning
Yes mam
From JITENDER KUMAR to All panelists:
Good morning everyone.
To: All panelists
Type message here...

Session-8 Day-4 Date: - 18 February, 2021

Session Title:-Geotechnical aspects of Restoration of Embankment and Retrofitting of Building

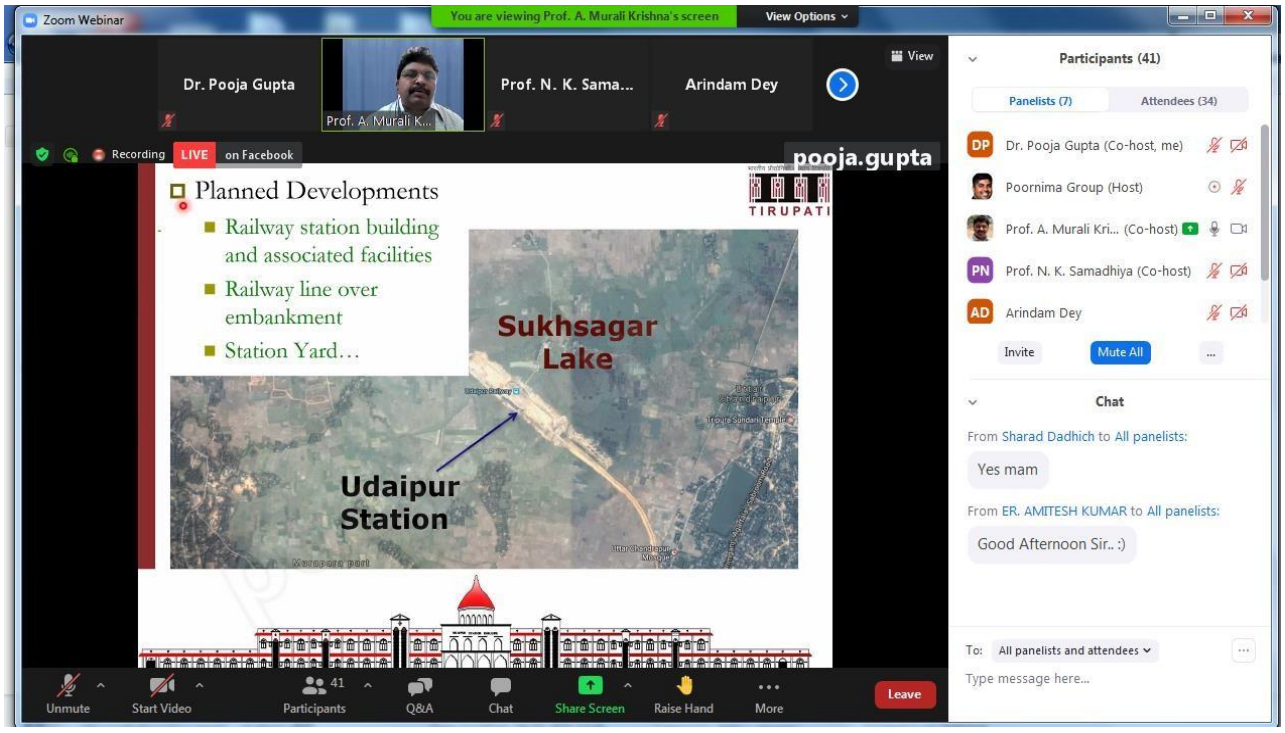
Name of Speaker: Dr. A. Murali Krishna, Professor, Dept. of Civil & Environmental, IIT Tirupati

Biography

Dr. A. Murali Krishna is Professor of Civil & Environmental Engineering Department at Indian Institute of Technology (IIT) Tirupati. He is also serving as Dean, Planning & Infrastructure of IIT Tirupati. Before joining IIT, TP in May 2019, he was a faculty member in Department of Civil Engineering at IIT Guwahati for about 11 years.

Dr. Murali Krishna obtained doctoral degree from Indian Institute of Science Bangalore, M.Tech degree from IIT Kanpur and B.Tech degree from Sri Venkateswara University College of Engineering, Tirupati. His research interests include: Earthquake Geotechnics, Geosynthetics and Ground Improvement, Site characterization and Numerical and Physical modelling of geotechnical structures. He supervised 7 Doctoral students and 24 Masters Students; co-authored nearly 180 publications of technical papers in international/national Journals and conference/seminar proceedings, including book chapters.

He was a recipient of BRNS Young Scientist Research award, BOYSCAST fellowship and HERTAGE fellowship. He was a visiting fellow at Bristol University (UK), Surrey University (UK) and University de Torino (Italy). Dr. Murali Krishna is an executive member of Indian Geotechnical Society, Indian Society of Earthquake Technology (ISET), International Society of Rock Mechanics (India).He is also a Member of TC 203 of ISSMGE, since 2011.Dr. Murali Krishna organised several national and international workshops and short courses, in particular Indian Geotechnical Conference 2017 at IIT Guwahati. He is a consultant for several projects as well as a reviewer for several national and international Journals.He was the chairman/vice-chairman of GATE-JAM at IIT Guwahati during 2016-2019.



Zoom Webinar

You are viewing Prof. A. Murali Krishna's screen

View Options

Dr. Pooja Gupta

Prof. A. Murali K...

Prof. N. K. Sama...

Poornima Gr...

View

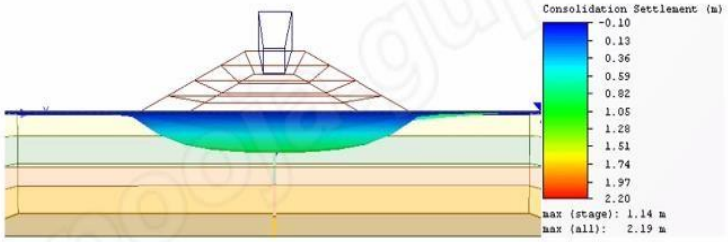
Recording LIVE on Facebook

pooja.gupta

TIRUPATI

Analysis of Embankment stability

- Using SETTLE3D software (Rocscience 2014)
  - The primary consolidation settlement of 0.505 m, 0.755 m, and 0.951 m after 3.14 m, 4.64 m, and 6 m embankment heights were observed.



- Numerical study confirms large deformations observed in the field
- Warrants for ground improvement

Unmute Start Video Participants 52 Q&A Chat Share Screen Raise Hand More Leave

Participants (52)

Panelists (6) Attendees (46)

Dr. Pooja Gupta (Co-host, me)

Poornima Group (Host)

Prof. A. Murali Kri... (Co-host)

Prof. N. K. Samadhiya (Co-host)

Dr. Pran Nath Dadhich, HOD Civil, PIET

Invite Mute All ...

Chat

From Sharad Dadhich to All panelists:

Yes mam

From ER. AMITESH KUMAR to All panelists:

Good Afternoon Sir.. :)

To: All panelists and attendees

Type message here...

Zoom Webinar

You are viewing Prof. A. Murali Krishna's screen

View Options

Dr. Pooja Gupta

Prof. A. Murali K...

Prof. N. K. Sama...

Poornima Gr...

View

Recording LIVE on Facebook

pooja.gupta

TIRUPATI

- Well Resistance
  - Resistance to water flow into vertical drains.
  - Discharge capacity of the drain is reached, the overall consolidation process is retarded

18-02-2021

Source	Extent	Permeability	Remarks
Barron (1948)	$r_s = 1.6r_m$	$k_h/k_s = 3$	Assumed
Hansbo (1979)	$r_s = 1.5 - 3r_m$	open	Based on available literature at that time
Hansbo (1981)	$r_s = 1.5r_m$	$k_h/k_s = 3$	Assumed in case study
Bergado et al. (1991)	$r_s = 2r_m$	$k_h/k_v = 1$	Laboratory investigation and back analyses for Bangkok soft clay
Onoue et al. (1991)	$r_s = 1.6r_m$	$k_h/k_s = 3$	From test interpretation
Almeida et al. (1998)	$r_s = 1.5- 2r_m$	$k_h/k_s = 3$-6	Based on experiences
Indraratna et al. (1998)	$r_s = 4- 5r_m$	$k_h/k_s = 1.15$	Laboratory investigation for sydney clay
Hird et al. (2000)	$r_s = 1.6r_m$	$k_h/k_s = 3$	Recommend for design
Xiao (2000)	$r_s = 4r_m$	$k_h/k_s = 1.3$	Laboratory investigation for kaolin clay

Unmute Start Video Participants 54 Q&A 1 Chat Share Screen Raise Hand More Leave

Participants (54)

Panelists (6) Attendees (48)

Dr. Pooja Gupta (Co-host, me)

Poornima Group (Host)

Prof. A. Murali Kri... (Co-host)

Prof. N. K. Samadhiya (Co-host)

Dr. Pran Nath Dadhich, HOD Civil, PIET

Invite Mute All ...

Chat

From Sharad Dadhich to All panelists:

Yes mam

From ER. AMITESH KUMAR to All panelists:

Good Afternoon Sir.. :)

To: All panelists and attendees

Type message here...

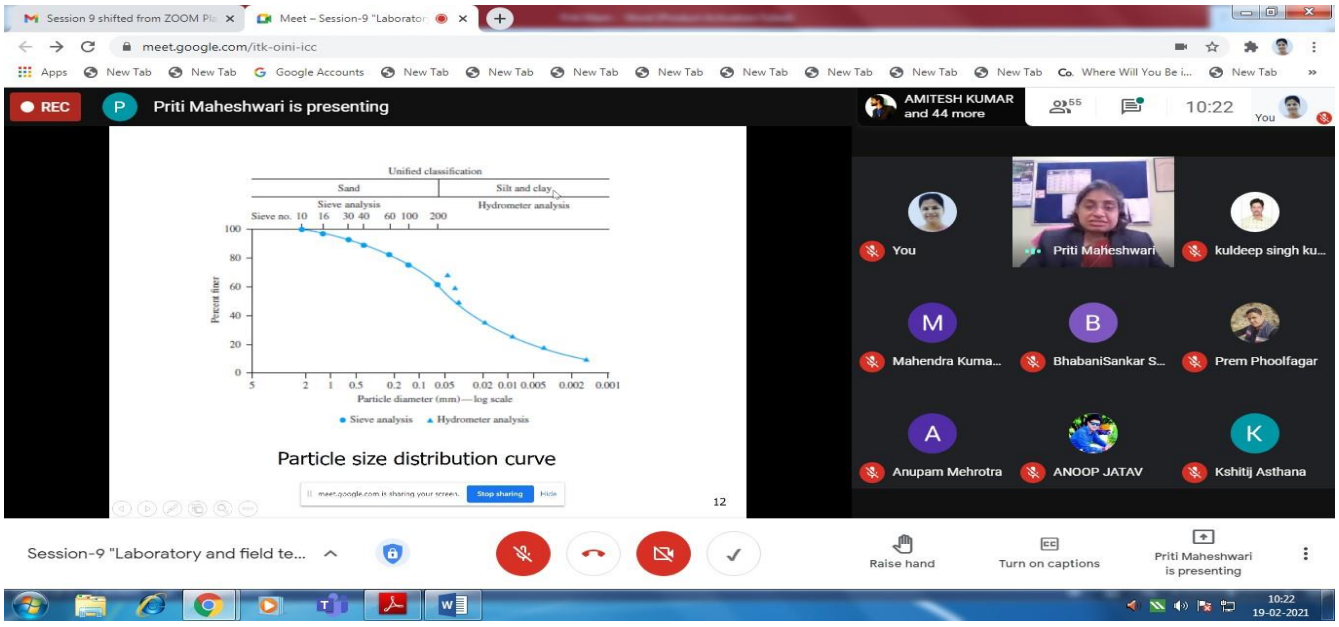
Session-9 Day-5 Date: - 19 February2021

Session Title:-Laboratory and field tests for soil investigation

Name of Expert:- Dr. Priti Maheshwari, Professor, IIT Roorkee

Biography

Dr. PritiMaheshwari, Professor in Department of Civil Engineering, IIT Roorkee, has supervised 20 Masters and 04 Doctoral Theses. She has one chapter in book titled “Geotechnical Engineering Handbook”, 50+ research publications in National and International refereed journals and 20+ in National and International conferences to her credit. Her research interests include Soil – Structure Interaction, Ground Engineering: Modeling and Analysis, Statistical / Probabilistic Approaches to Strength Criteria for Rocks and Rock Masses. She is on the editorial board of International Journal of Geotechnical Engineering and Indian Geotechnical Journal. She has received IGS-Z Tech Biennial Award for years 2008-09 and IGS-Shri B. N. Gupta Biennial prize for years 2015-16 by Indian Geotechnical Society. She has been nominated to represent Indian Geotechnical Society on the International Technical Committee TC-304 on "Engineering Practice of Risk Assessment and Management" of ISSMGE for the term 2018-2021.



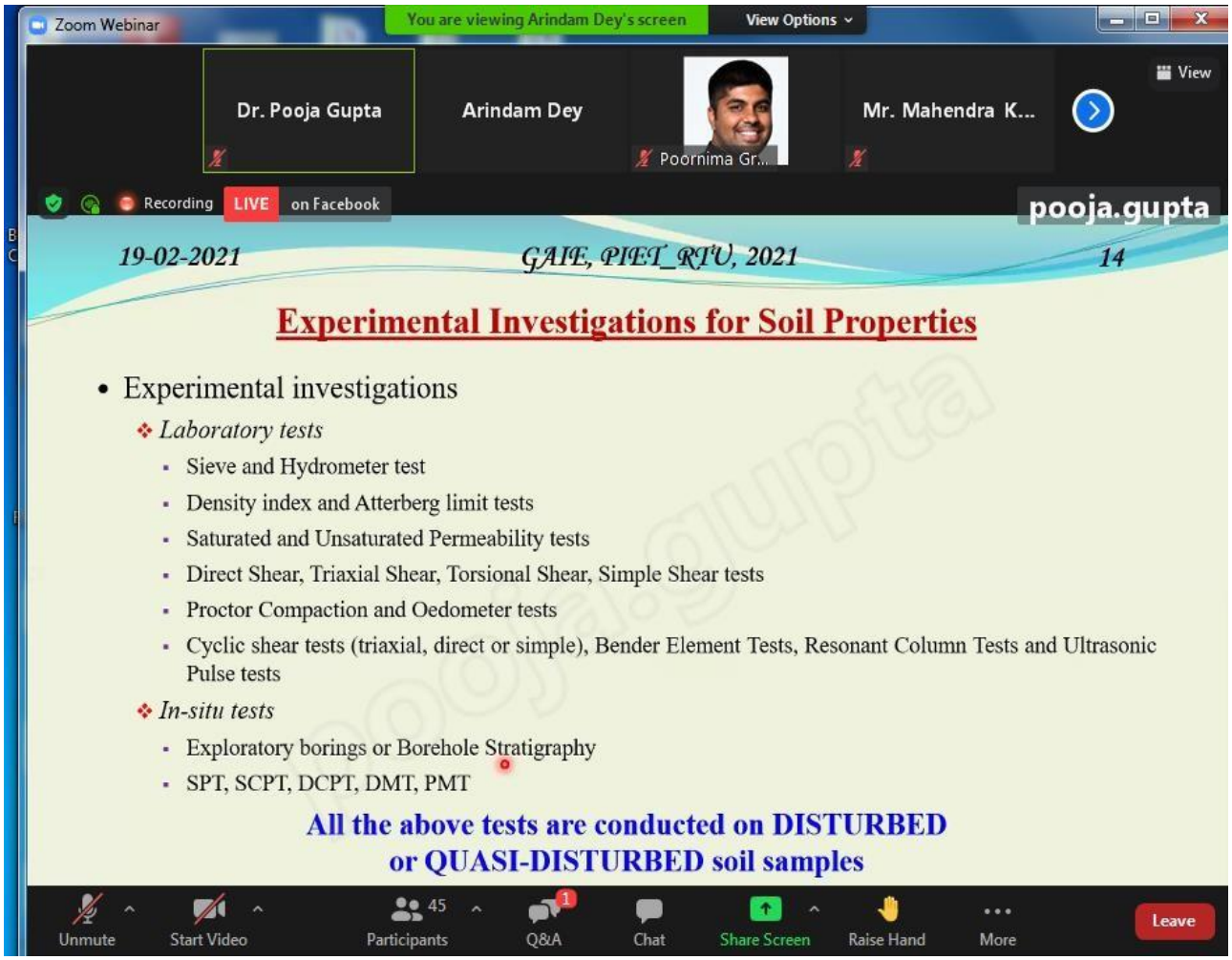
Session10 Day-5 Date: - 19 February2021

Session Title: Geotechnical Assessment with Industrial Exposure

Name of Expert: Dr. Arindam Dey, Associate Professor, IIT Guwahati

Biography

Dr. Arindam Dey is currently an Associate Professor in the Geotechnical Engineering Division, Department of Civil Engineering, Indian Institute of Technology Guwahati. He obtained his B.E. from Jadavpur University, Kolkata (in 2003), followed by M.Tech. (in 2005) and Ph.D. (in 2009) from IIT Kanpur. Before joining IIT Guwahati in 2011, he has been a post-doctoral fellow at the StreGa Laboratory, University of Molise, Italy. He works in varied fields of geotechnical engineering including foundation engineering, geotechnical earthquake engineering, geophysical investigation, computational geotechnics and slope stability and landslides. His current research group includes 8 PhD students and 3 M.Tech students, and has already supervised 7 PhDs and 22 M.Tech students. His research group has more than 250 technical contributions in international/ national journals and conference/seminar proceedings including books, chapters and technical reports. He is a member of several professional bodies including ISSMGE TC-208 Committee on 'Slope Stability and Landslides', IGS, TRG, IEI, and FOSET. He has received several research awards, and has been an active research consultant in the area of geotechnical engineering.



Zoom Webinar

You are viewing Arindam Dey's screen

View Options

Dr. Pooja Gupta

Arindam Dey

Poornima Gr...

Mr. Mahendra K...

View

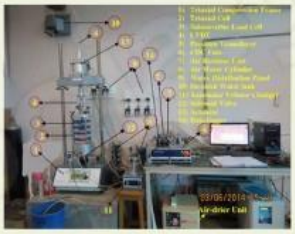
Recording LIVE on Facebook

pooja.gupta

Dynamic Response of Typical Soils of NE India

Shiv

- Cyclic Triaxial tests
  - *Strain and Stress controlled tests*
    - Shear modulus degradation
    - Evolution of damping ratio
    - Liquefaction potential evaluation



Unmute Start Video Participants 50 Q&A 1 Chat Share Screen Raise Hand More Leave

LIST OF ATTENDEE CANDIDATES:

Sr. No.	Name of Participants	Name of the Institution
1	Kapil Kumar Gautam	er.kapilgautam@gmail.com
2	Ravi Sharma	ravimbm21@gmail.com
3	Praveen Nigam	er.pknigam@gmail.com
4	Tarranum Abdul Gani Khan	tarankhan01@gmail.com
5	Shrawan Ram	shrawanram.patel@jietjodhpur.ac.in
6	Lakshmikantrana	lakshmikant.rana@sangamuniversity.ac.in
7	Divya Sharma	dsce300@gmail.com
8	Saurabh Sharma	saurabh.sharma1090@gmail.com
9	Prof.MayankVarshney	mayank.varshney@vitj.ac.in
10	Sachin Sharma	Sachin2410s@gmail.com
11	Narendra Kumar Ahirwar	narendra87.ahirwar@gmail.com
12	Arun Raja L	arunraja@psr.edu.in
13	Yogesh Kumar Sen	yogeshsen111@gmail.com
14	Alok Kumar	kumaralok2207@gmail.com
15	Laxmi Kant Saini	laxmi.saini@poornima.org
16	Om Prakash Singh	cool.op91@gmail.com
17	PreetiKuhar	preetikuhar555@gmail.com
18	Rupali Jain	rupali.udaipur@gmail.com
19	Nikhilesh P	nikhileshponnappan@gmail.com
20	Sagar Kailas Sonawane	sagarsonawane.rmdssoe@sinhgad.edu
21	Mr.Sumit Ramesh Thakur.	sumit.thakur@sinhgad.edu
22	Nikhil ShrihariBembade	nikhil.bembade@walchandsangli.ac.in
23	J.M.S.Naveen Chandra	naveen0002@yahoo.com
24	Devendra Prajapat	2017pgicedevendra005@poornima.org
25	Denis Jangeed	Denish.jangid0@gmail.com

26	AmanUjjwal	amanujjwal1998@gmail.com
27	AnulekhaChakraborty	anulekhachak@gmail.com
28	Ashish Saini	ashish.20mtgeo778@rtu.ac.in
29	Ashok Pawar	sumitthakurlatur@gmail.com
30	Chavi Ranwah	chaviranwah@gmail.com
31	D V Siva Sankara Reddy	sankar.duggempudi@gmail.com
32	DayanandTak	dayanandtak83@gmail.com
33	Deepak Pathak	deepakramdattpathak@gmail.com
34	DeepaliAnand	ce.deepali@gmail.com
35	Dr.Kuldeep Singh Kulhar	kskulhar23@gmail.com
36	ER. Amitesh Kumar	nitb.amiteshkumar@gmail.com
37	Gurusamy K	guru073190@gmail.com
38	Madhu Sudan Negi	msudan999@gmail.com
39	MallikaChowdaryCh	Mallika.bec30sep@gmail.com
40	Manish Dashora	manishdashora630@gmail.com
41	Naveen Kumar	naveenk88@gmail.com
42	Nikita Panwar	Nikita.20mtgeo779@rtu.ac.in
43	Raksha Rani Sanadhya	raksharanisanadhya@gmail.com
44	RavikantSathe	rssathe@coe.sveri.ac.in
45	S Bala Padmaja	stbalapadmaja_civil@mgit.ac.in
46	Sakshikhandelwal	sakshik999999@gmail.com
47	SamratGhose	ghoose7@gmail.com
48	SharadDadhich	sharaddadhich73@gmail.com
49	SoundaraBalu	soundara@bitsathy.ac.in
50	Sukanya Sharma	sskanya23@gmail.com
51	Sureka S	ersureka@gmail.com
52	syamilisarma	syamilisarma_civil@cbit.ac.in
53	Sowmya B S	som_bs79@yahoo.co.in

54	Abdul Ahad	a.ahadjmi@gmail.com
55	Ajay Pratapsinghrathor	apsrathor.phd19@rtu.ac.in
56	anupammehrotra	mehrotra.anupam@gmail.com
57	Archita Goyal	archi01goyal@gmail.com
58	Ashish Solanki	ashish92.4ueverback@gmail.com
59	Atul Bhatore	atulbhatore7@gmail.com
60	AyushGoyal	ayush.goyal@poornima.org
61	Banti Singh	bsgurjarjaat@gmail.com
62	Bharti Dadhich	bhartidadhich3124@gmail.com
63	Deepak Mathur	mathurdeepak1507@gmail.com
64	DrAmarnath Arora	anarora21@gmail.com
65	Dr. MatsyendraNath Shukla	mnathshukla@gmail.com
66	Dr. VenkataKrishnaiah R	venkatapec@gmail.com
67	Ezhilkumar MR	ezhil.1990.kumar@gmail.com
68	Goutam Bhatia	goutam.bhatia16@gmail.com
69	Harapriya Panda	priya.pce@gmail.com
70	Harish Kumar	iamharishshakya@gmail.com
71	Jaya Patil	bhagyashreeshisode@gmail.com
72	Jitender Kumar	jitenderbhanushali1@gmail.com
73	KarishmaJangam	kpjangam@gmail.com
74	KshitijAsthana	kasthana747@gmail.com
75	LakshmikantRana	lakshmikant.rana@sangamuniversity.ac.in
76	Love Sharma	love.sharma@smvdu.ac.in
77	Mahendra Saini	mahendra.rcert@gmail.com
78	Mahesh Sharma	maheshsharma944@gmail.com
79	ManjuBala	manju9ce144@gmail.com
80	MD Kamran Kaleem	Kamrankaleem96@gmail.com
81	MenkaYadav	Menkayadav122@gmail.com
82	Mohammed Imamuddin	mohammed.20me453@rtu.ac.in
83	Mohd Bilal Khan	bllkhan@iul.ac.in
84	Mukul Nama	mukul.nama@poornima.org
85	Narendra Bhadhana	narendra.bhadana@poornima.org
86	NazimaliChinwala	nazimali.chinwala@gmail.com
87	Nilakantha Panda	jitupanda78@gmail.com
88	ParmanandMeena	parmanandmeena72020@gmail.com
89	Pawan Mishra	mishraboys95@gmail.com
90	PawanShringi	pawan.20mtgeo780@rtu.ac.in
91	PrachiGour	Gourprachi00@gmail.com
92	Pradeep kumar Jain	pradeepkumar.jain7@gmail.com
93	Prakash Mokha	pkmokha@gmail.com
94	PremPhoolfagar	Premphoolfagar.ce@jecrc.ac.in
95	Rajneesh Sharma	rajneeshcivil.gecj@gmail.com
96	Rituraj Singh Rathore	rituraj.rathore@poornima.org
97	SagarSonawane	sagar17793@gmail.com
98	SamitinjayBansode	ssbansode.78@gmail.com
99	Sathiya U	Sathiyases@gmail.com

100	shamalBurman	shamal.burman@poornima.org
101	Sharma PushpaKumari	Sharmapushpakumari@vbithyd.ac.in
102	ShivakumarKhaple	shivabku@gmail.com
103	Showkat Ahmad Bhat	sabhatmaths@gmail.com
104	Shreyans Jain	shreyans.jain1971@gmail.com
105	Siva Kishore Ikkurthi	i.sivakishore@kluniversity.in
106	SohilSisodiya	ssisodiya.npiu.ce@rtu.ac.in
107	Srinivas Manchikanti	manchisri@gvpce.ac.in
108	Tarranum Khan	tarankhan01@gmail.com
109	Vikas Sharma	vikas.sharma@poornima.org