

Report on  
**1 Week Short Term Training Program (STTP) on  
RECENT RESEARCH TRENDS IN STRUCTURAL ENGINEERING-RRTGE-17**



In Association With:  
IGS Surat Chapter & Bhavnagar Chapter



Marwadi  
University  
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education foundation



**RECENT RESEARCH TRENDS IN  
GEOTECHNICAL ENGINEERING  
(RRTGE-17)**

One Week Short Term Training Programme (STTP)

26<sup>th</sup> – 30<sup>th</sup> Dec 2017  
(Tueto Sat)

Room MC 501 & MB101  
B-Wing, Engineering Main building

Department of Civil Engineering  
Coordinator : Dr. Siddharth G. Shah

[marwadiuniversity.ac.in](http://marwadiuniversity.ac.in)

**PATRONS:**

**Shri Ketan H. Marwadi,**  
Chairman, MEFGI

**Shri Jitendra A. Chandarana,**  
Vice-Chairman, MEFGI

**MENTOR:**

**Dr. Y. P. Kosta,** Director,  
Technical Campus, MEFGI

**Dr. R. B. Jadeja,** Dean, MEFGI

**Dr. R.L Zala,** Deputy Dean, MEFGI

**Dr. Sarang Pande,** Principal FOPG, MEFGI

**MR. NARESH JADEJA,** Registrar, MU

**COORDINATORS**

**Dr. Siddharth G. Shah,**

Head & Prof.Civil Engg Dept FOPG, MEFGI,  
Email id: Siddharth. shah@marwadieducation.edu.in

**PROF. Yogesh K Alwani,**  
Asst Professor, MEFGI

**ORGANIZING COMMITTEE**

**Dr. Chirag C. Patel,** Professor, CED, MEFGI

**Dr. Ankur Bhogayata,** Head FOE, MEFGI

**Dr Tarak Vora,** Head FOT, MEFGI

**Dr Mazar Dhankot,** Asso. Prof., MEFGI

**Prof. Ms. Bhavana Ajdiya,**Asst, Prof. MEFGI

**Report Prepared By: Dr. Siddharth G. Shah**

# STTP - “RECENT RESEARCH TRENDS IN GEOTECHNICAL ENGINEERING”

## ABOUT STTP

The one week long STTP presents the recent researches in the field of Geotechnical engineering. It discusses the latest research issues related to the same and gives the common platform to researchers, student’s academicians and industry persons. This STTP is jointly organized by INDIAN GEOTECHNICAL SOCIETY (IGS)Surat & Bhavnagar Chapter and Marwadi Education foundation and sponsored by Marwadi University.

## OBJECTIVES OF THE PROGRAMME

Geotechnical engineering applies scientific and technical knowledge to provide economical and efficient analysis, design & construction of foundation and geotechnical structure is it for residential, multi-storeyed buildings, hospitals, large span halls, off shore structures, bridges, chimney, silos & other uncountable structure that meets societal needs while maintaining compatibility with environmental, energy and safety goals. Geotechnical engineering is broad branch of civil engineering which has also concerned with many other engineering branches like structural engineering, earthquake engineering, environment engineering, highway engineering. Material engineering, Mathematics & computer engineering too.

The primary goal of this short term course is to provide the participants with an in-depth understanding on recent trends of research & upcoming area of **Geotechnical Engineering** and thereby this knowledge be imparted to the next level i.e. students community.

There were around 30 participants and 10 speakers from various institutes of repute and following themes were discussed during the STTP.

1. Applications of Geosynthetics
2. Ground improvement techniques
3. Soil-structure interaction
4. Pile foundation and case studies
5. Transportation geotechnics
6. Grouting technology
7. Nano technology applications in Geotechnical engg.

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### SCHEDULE OF EVENTS

Date Time	26/12/17 (Tuesday)	27/12/17 (Wednesday)	28/12/17 (Thursday)	29/12/17 (Friday)	30/12/17 (Saturday)
8:45 – 9:00	Registration				
9:00 – 9:30	Inauguration & High-tea	<b>Tea/Breakfast</b>			
9:30 - 11:00	<b>Dr. A. K. Verma</b> Professor & Head BVM- Vallabh Vidyanagar	<b>Dr. Kannan Iyyer</b> Asst. Professor, IIT RAM	<b>Dr. Siddharth G. Shah</b> Professor & Head MEFGI- FOPG, Rajkot	<b>Dr. D. L. Shah</b> Professor & Head MS University- Vadodara	<b>Dr. C.H. Solanki</b> Professor & Head, AMD SVNIT Surat
11:00 – 11:15	<b>Tea break</b>				
11:15 - 12:30	<b>Dr. A. K. Verma</b> Professor & Head BVM- Vallabh Vidyanagar	<b>Dr. Kannan Iyyer</b> Asst. Professor, IIT RAM	<b>Dr. Siddharth G. Shah</b> Professor & Head MEFGI- FOPG, Rajkot	<b>Dr. D. L. Shah</b> Professor & Head MS University- Vadodara	<b>Dr. C.H. Solanki</b> Professor & Head, AMD SVNIT Surat
12:30 – 1:30	<b>Lunch break</b>				
1:30 - 2:45	<b>Dr. Yogendra Tandel</b> Asst. Professor GEC Dahod	<b>Dr. Trudeep Dave</b> Asst. Professor, IIT RAM	<b>Dr. Kalpana Maheshwari</b> Principal, HJD Kera	<b>Dr. Jay Shukla</b> AGM (Civil & Structure) L & T Vadodara	<b>Objective test</b> (For the participants to qualify for the certificate)
2:45 – 3:00	<b>Tea Break</b>				
3:00 - 4:25	<b>Dr. Yogendra Tandel</b> Asst. Professor GEC Dahod	<b>Dr. Trudeep Dave</b> Asst. Professor, IIT RAM	<b>Mr Vinesh Maheshwari</b> Proprietor Unique Services, Adipur Kutch	<b>Dr. Jay Shukla</b> AGM (Civil & Structure) L & T Vadodara	<b>Certificate distribution &amp; Valedictory</b>

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## INAUGURAL SESSION

The STTP was chaired by Chief Guest & Keynote Speaker, Dr. A.K.Verma Sir (Professor & Head, Applied Mechanics Dept, BVM-vidhyanagar ), Dr. Tarak vora ((Head FOT, Civil Engineering Department), Dr. Siddharth G. Shah (Head FOPG and STTP Co-ordinator) and Prof Yogesh Alwani (Asst Prof., CED and STTP Co-ordinator). Other faculty members and student participants were also present during the inauguration of STTP.

Dr. Tarak vora, Head, FOT, CED, introduced all about the department and its activities.

Dr. Siddharth Shah, Head FOPG, CED, had briefed all about the STTP and its importance. He explained various outcome of the program. He had given brief outline of program and requested to all participants to enrich their knowledge from this STTP by effective participation.

All the technical sessions were delivered then after as per the schedule by experts from relevant fields.



**AUDINACE: OUT SIDE PARTICIPANTS, FACULTIES OF MEFGI, PG STUDENTS OF 'ME-STRUCTURE'.**





**LIGHTENING OF LAMP & PRAYER**



**Prof. Tarak Vora,**

Head, Civil engg Dept, FOT, MEFGI

Speech: about Civil Engg dept.



**Dr. Siddharth G. Shah**

Head, Civil engg Dept, FOPG, MEFGI & STTP

Coordinator

Giving speech on about STTP



**Dr. A.K.Verma**

Professor & Head, Applied Mech Dept, BVM Engg

college & Chief Guest of inaugural function

Giving inaugural speech

**ABOUT THE EMINENT SPEAKERS AND THEIR EXPERT TALKS**

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**Day-1, Tuesday, 26/12/2017**

**Dr. A. K. Verma** – Professor & Head,  
Structural Engineering Department, BVM,  
Vallabh Vidyanagar.

**Topic:** Application of Geosynthetic for  
stabilization of soil and Ground improvement  
techniques



**Dr. Yogendra Tandel** – Asst. Professor &  
Applied Mechanics Department. GEC Dahod

**Topics: (i)**Application of finite element method  
in Geotechnical engineering through Plaxis  
software

**(ii)** Modeling of Stone colum for ground  
improvement in Plaxis

Day-2, Wednesday ,27/12/2017

**Dr. Kannan Iyyer** – Asst. Professor,  
IITRAM, Ahmedabad

**Topic:** (i) Unsaturated soil mechanics &  
(ii) Soil Structure Interaction



**Dr. Trudeep Dave**, Asst. Professor, IITRAM,  
Ahmedabad

**Topic:** (i) Transportation Geotechnical  
engineering  
(ii) Design and construction of Retaining walls

Day-3, Thursday 28/12/2017

**Dr. Siddharth G. Shah**, Professor & Head FOPG  
MEFGI, Rajkot

**Topic:** Nano Technology applications in  
Geotechnical Engineering and Soil Structure  
Interaction analysis methods



**Prof. Amit Joshi**, Asst. Professor FOPG  
MEFGI, Rajkot

**Topic:** Use of SEM for Characterization of  
Soil minerals

**Prof. Yashwantsinh Zala**, Asst. Professor  
MEFGI, Rajkot

**Topic:** Electrokinetic remediation of soil



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DAY-3 Thursday 28/12/2017 (Last session)

## DEMONSTRATION OF SOIL TESTING

As per the feedback received from the previous STTPs we had implemented demonstration of the soil testing to the participants the team of civil engineering faculty and lab Asst had successfully implemented the same. How soil investigation is done and what are the steps right from preparing the samples and recording the observation and calculation everything was demonstrated. Triaxial shear test was demonstrated for unconsolidated undrained conditions



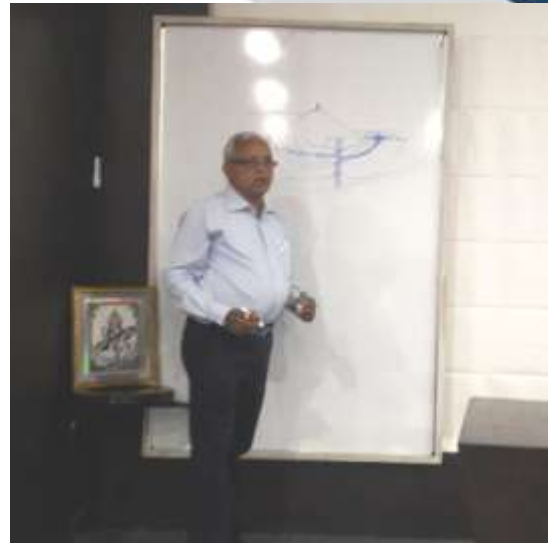
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Day-4, Friday, 29/12/2017

**Dr. D. L. Shah** - Professor, Applied Mechanics Department, Faculty of Technology & Engineering. MSU, Vadodara

**Topic:** (i) Ground improvement techniques  
Case studies and

(ii) Grouting Technology



**Dr. Jay Shukla AGM (Civil & Structure)**

L&T, Vadodara

**Topic:** (i) Deep foundation Case studies  
(ii) Reclaiming Land for Bangladesh Power plant Project

Day-5 Saturday 30/12/2017

**Dr. C. H. Solanki** –Professor & Head, Applied Mechanics Department. SVNIT, Surat.

**Topic:** (i) Transit Oriented Development and its impact on road traffic and metro: case study of Mumbai MetroLine-1(VAG) Corridor

(ii) Efforts towards development of Indian Highway Capacity 7/11/2016 Manual.



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## OTHER GLIMPSE OF STTP RRTGE-17











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### **SPECIALITY OF THIS STTP:**

At the end of session online assessment test were conducted based on one week STTP course. There were passed students awarded with certificates during valedictory function.

### **GLIMPSE OF THE ONLINE ASSESMENT TEST:**



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**Google form Quiz snapshot:**

IGS Surat Chapter &amp; Bhavnagar Chapter



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**RECENT RESEARCH TRENDS IN GEOTECHNICAL ENGINEERING-17 ( 26 Dec to 30 Dec 2017 )**

**RRTGE-17 Objective test**

It is mandatory to score at least 60% to qualify for the certificate

\* Required

**Email address \***

Your email

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**Name \***

Your answer:

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**Test result**

Total score	Name	Designation
17.00 / 39	Yogesh Alwani	Assistant Professor
31.00 / 39	Kishan V. Savani	PG Research Scholar
26.00 / 39	amit joshi	Assistant Professor
18.00 / 39	Smeet Faldu	PG Research Scholar
28.00 / 39	parth lakhani	Ph D Research Scholar
22.00 / 39	Chirag Mukeshbhai Asodariya	Assistant Professor
21.00 / 39	Rahul M Rachchh	Assistant Professor
15.00 / 39	Mohammad rahim rahimi	PG Research Scholar
25.00 / 39	Divyesh Viradiya	PG Research Scholar
21.00 / 39	JOSHI AKASH SUDHIRBHAI	PG Research Scholar
20.00 / 39	Goyal Ankur M	PG Research Scholar
25.00 / 39	Smit Mahendrabhai Kacha	Ph D Research Scholar
27.00 / 39	VIRADIYA JAY RAMESHBHAI	PG Research Scholar
25.00 / 39	Prof. M H Lunagaria	Assistant Professor

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30.00 / 39	Garima	Assistant Professor
25.00 / 39	Omkar Dabhi	PG Research Scholar
20.00 / 39	Jay Pandya	Ph D Research Scholar
16.00 / 39	Sandeep Chandnani	Assistant Professor
33.00 / 39	Shemal V. Dave	PG Research Scholar
36.00 / 39	Kunal	Assistant Professor
18.00 / 39	Ashish Makwana	Assistant Professor

### VALEDICTORY SESSION:

The STTP was concluded with valedictory function on 30<sup>th</sup> Dec., 2017. In the Valedictory function, The Expert of the day, Dr. Chandresh H Solanki from SVNIT, Dr. S. G. Shah, Prof. Yogesh Alwani, and Ms. Bhavna Ajudiya were remaining present. The highlights of the STTP were given by Dr. Siddharth Shah. The valedictory speech was given by Dr. Chandresh Solanki and he congratulated the coordinators and The Civil engg dept for conducting this fourth consecutive STTP, he also appreciated the STTP theme, and its innovation of conducting the exam.

All the participants were distributed with the certificates on successful passed online assessment test based on course of one-week STTP by dignitaries on the Dias.

The Vote of thanks was given by Dr. Siddharth shah, STTP Coordinator. He highlighted the immense contribution of the various sponsors and organizers and special thanks to the Chairman- Shri Ketanbhai Marwadi sir, Vice-Chairman- Shri Jitubhai Chandarana Sir, The Director- Dr. Y. P. Kosta and The Dean- Dr. R. B. Jadeja sir of MEFGI Campus for their constant support for the STTP. He also showed his gratitude towards Dr. R.L.Zala, Registrar Naresh Jadeja and Dr. Sarang Pande sir for mentoring the event.

He also thanked his Team RRTGE-1&, Ms. Garima Singh for registration, Prof. Yogesh Alwani for catering, Prof. Amit Joshi, Yashwant zala and Parth for team effort of demonstrating the test and Prof. Jay Pandya for photography.

He heartily thanked all the speakers who took pain to travel from their places to MEFGI campus and spared their valuable time for the institute. He also thanked all the participants who made this event a grand success by participating whole heartedly and appearing in the exam.

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## GLIMPSES OF VALEDICTORY FUNCTION

	
<p>Dr. C.H. Soanki sir's Speech</p>	<p>Certificate Distribution, by Dr. C.H. Solanki</p>
	
<p>Certificate Distribution, by Prof. Yogesh Alwani</p>	<p>Certificate Distribution, by Prof. Bhavana Ajudiya</p>
	
<p>Certificate Distribution, by Dr. Siddharth Shah</p>	<p>Certificate Distribution, Dr. Siddharth Shah</p>

**GROUP PHOTO OF PARTICIPANTS AT RRTGE-17**



**THANK YOU ALL.....  
COORDINATORS**

Dr. Siddharth G. Shah, Professor & Head, CED, MEFGI, Rajkot

Dr. Yogesh K. Alwani, Asst. Professor, MEFGI, Rajkot