A contract of the term of term	GEOTECHNICAL DYNAMICS <sup>15</sup> Date: 18 <sup>th</sup> June to 23 <sup>rd</sup> June 2018 –Organized by – Department of Civil Engineering P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions College of Engineering & Management,	Pote Estate, Gajanan Township, Kathora Road, Amravati-444605 Amravati-444605 0721-2970110, Fax : 0721-2530341 E-mail : prpotepaticollege@gmail.com Web : www.prpcem.org Web : www.prpcem.org
ABOUT INSTITUTE: P. R. Pote (Patil) Group of Educational Institutes, Amravati, is a foremost name in Higher education in Maharashtra. The group has become a symbol of quality education in diverse fields ranging from primary education to technical & professional educations. Over a short span of time, the group has become synonymous with its educational institutes of highest standards renowned for their academic excellence and the commitment to the holistic development of the individual and the society. Founded in year 2009, P. R.	Pote (Patil) College or Engg. & Mgm. is a constituent unit of the parent educational group. The Institute has been endeavouring to develop as a centre of excellence in engineering education and research, catering to the needs of organizations in different sectors of the economy with special emphasis on technology- driven and knowledge-based industries that are characterized by high degrees of globalisation, dynamism, complexity and innovation. ABOUT DEPARTMENT OF CIVIL ENGINEERING: The Department of Civil Engineering seeks to combine excellence and discipline in technical	education, developing students for intellectual skill and practical experience that enable them to serve a variety of societal needs, nurtured students to become best professionals as project managers, structural designers in industry or become entrepreneurs in their own innovative way. The department has a team of dynamic and experienced faculties, whose expertise spans the range of disciplines in Civil Engineering stream specially known for their excellent team coordination and a very healthy work-culture for our hard-working students. The department is well equipped with lates software's and laboratory equipments. The Department of Civil Engineering believes in building career, enriching minds and provides a remarkable experience that lasts a life time.
PATRONS: Hon'ble Shri. Pravinkumar R. Pote Minister of State of Industries and Mining. Environment and Public works, Guardian Minister of Amravati District, (M.S.) President, P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions, Amravati (M.S.) Hon'ble Shri Dilip Bhau Nimborkar Vice-President, P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions, Amravati (M.S.)	convener: Dr. D. G. Wakde, Director, PRPCE&M, Amravati Dr. Mrs. S. D. Wakde, Principal, PRPCE&M, Amravati Prof. Mohammad Zuhair, Head & Vice-Principal PRPCE&M, Amravati RPPCE&M, Amravati RPPCE&M, Amravati RPPCE&M, Amravati PRPCE&M, Amravati PRPCE	ADVISORY COMMITTEE: Prof. Dr. S. K. Deshmukh, Principal, CoE, Akola Prof. Dr. S. K. Mundhada, PRMIT&R. Badnera Prof. Dr. S. N. Khante, GCoE, Amravati Prof. Dr. S. N. Khante, GCoE, Amravati Prof. Dr. S. S. Pusadkar, GCoE, Amravati Prof. Dr. K. N. Kadam, GCoE, Dalgaon Prof. Dr. S. S. Pusadkar, GCOE, Jalgaon Prof. Dr. S. S. Pusadkar, GCOE, Jalgaon Prof. Dr. S. S. Pusadkar, GCOE, Amravati Prof. Dr. S. S. Pusadkar, GCOE, Amravati Ara K. Chitkeshwar, Civil. Engg., Dept Ar. M. A. Rehman, Civil. Engg., Dept Ars. S. R. Shirbhate, Civil. Engg., Dept Ars. R. D. Wadhai, Civil. Engg., Dept

### ABOUTSTTP

This training programme intends to cultivate the interest of participants in structural and geotechnical actions of dynamics in Civil Engineering structures. Dynamics in this context means time varying. The study of dynamics becomes increasingly important to ensure that the dynamic response of Civil Engineering structures is reduced to prevent significant damage during earthquakes.

In Civit Engineering it is important in the design and retrofit of structures to withstand severe dynamic loading from earthquakes and strong winds or to identify the location of damage within an existing structures. The study of dynamics is helpful in studying the basic and essential input parameters for conducting ground response analysis.

This course enables the participants to gain an understanding of basic research orientation and fundamental areas of structural & geotechnical dynamics.

 The prime objective of this STTP is to Study the applications & mathematical modeling of structural & geotechnical dynamics related to Civil Engineering structures.

 This STTP is relevant to faculty, and researchers who pursuing their higher studies in areas of structural & geotechnical engineering.



## **RESOURCE FACULTY:**

Dr. L. M. Gupta, Professor, VNIT, Nagpur
Dr. Y. M. Ghugal, Professor & Head, CoE. Karad
Dr. P. S. Pajgade, Professor, PRMIT&R, Badnera
Dr. Mrs. S. N. Madhekar, Asso. Prof., CoE Pune
Dr. S. N. Khante, Asso. Prof., GCoE, Amravati
Dr. S. S. Pusadkar, Asso. Prof. & Head, GCoE. Jalgaon
Dr. R. N.Khapre, Asso. Prof., Ramdeobaba CoEM, Nag
Dr. Ratnesh Kumar, Asst. Prof., GCoE, Amravati
Prof. S. W. Thakre, Asst. Prof., GCoE, Amravati

## TARGET PARTICIPANTS:

Academicians, Research Scholars, Industry Personal

## HOW TO REACH INSTITUTE:

Nearest Airport is Nagpur-150 Kms Nearest Railway station is Amravati -8 Kms, Badnera-18 Kms from Institute.

## IMPORTANT DATES:

Last date for submission of duly filled registration form along with prescribed fees on or before 10<sup>th</sup> June 2018

## REGISTRATION DETAILS:

Participants have to pay registration fees of Rs. 1000/only (For ISTE members) and Rs. 1200/- (for Non-ISTE members), & for P.G. students Rs. 500/- which includes the cost towards Breakfast, Lunch, and course material

(if any). Registration fees can be paid in cash or remitted through Demand Draft drawn in favour of "Principal, P. R. Pote (Patil) College of Engineering & Management" payable at Amravati. Registration form must accompany the registration fees.

Place:

(Signature of HoD/Principal)



## **Registration Form**

ISTE Approved (Self Sponsored) Short Term Training Program (STTP) On

### "BASICS OF STRUCTURAL & GEOTECHNICAL DYNAMICS"

## Date: 18th June to 23th June 2018

Name of Participant: Designation: Organization:
ISTE member No.:
Mobile Number:
E-Mail:
Mailing Address:
Payment Details: - Cash / DD
DD. No
rawn on)
(Applicant's Signature)
ate:



### P. R. Pote Patil Edu. & Welf. Trust's, Group of Institutions, College of Engineering & Management, Amravati



- (Recognized by AICTE, New Delhi, Approved by Govt. of Maharastra & Affiliated to SGBAU, Amravati)
  - Kathora Road, Amravati, Maharashtra, India
  - Ph. No. : +91-721-2970110, Fax No. : +91-721-2530089, Email : prpotepatilcollege@gmail.com Web. : www.prpcem.org, www.prpatilcollege.org

Date:10/06/2018

### CIRCULAR

All the faculty members are here by informed that a self financed ISTE approved Short Term Training Program on "Basics of Structural Dynamics and Geotechnical Dynamics", from 18<sup>th</sup> to 23<sup>rd</sup>June, 2018 organized by Department of Civil Engineering.

Venue: Civil Engineering Department

### CopyTo

- 1. AllHODs
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Principal P.R. Pote (Patil) Edu. & Welfare Trust's Group of Institution's College of Engy. & Management Kathora Road, AMRAVATI.

### **FINAL REPORT**

Self financed ISTE approved

### Short Term Training Program

### On

### "BASICS OF STRUCTURAL DYNAMICS AND GEOTECHNICAL DYNAMICS"

### **Date and Venue:**

The STTP took place on 18<sup>th</sup> to 23<sup>rd</sup> June 2018 at Department of Civil Engineering, P.R.Pote (Patil) Education & Welfare Trust's, Group of Institutions, College of Engineering & Management, Pote estate Kathora road, Amravati.

### **Training Team :**

The members of the training team were -

- 1. Dr. M.G. Chandekar, Vice Chancellor, SGBAU Amravati University
- 2. Dr. A. I. Dhatrak, Dean Academics, Government College of Engineering, Amravati.
- 3. Dr. L. M. Gupta, Professor, VNIT Nagpur.
- 4. Dr. S. N. Madhekar, Professor, COEP Pune.
- 5. Dr. P. S. Pajgade, Professor, PRMIT&R, Badnera, Amravati.
- 6. Dr. R. N. Khapre, Professor, RKNEC, Nagpur
- 7. Dr. Ratnesh Kumar, Asso. Professor, VNIT Nagpur.
- 8. Dr. S. S. Pusadkar, Asso. Professor, GCOE Jalgaon.
- 9. Dr. S. N. Khante, Asso. Professor, GCOE Amravati.
- 10.Mr. S. W. Thakre, Asso. Professor, GCOE Amravati.
- 11.Dr. H. Y. Mohod, ISTE Chairman, Maharashtra & Goa
- 12.Dr. A. R. Mundhada, Professor, PRMIT&R, Badnera, Amravati.

### **STTP Contents:**

Following are the topics covered in the Workshop.

- 1. Structural Steel Design-A Limit State Approach
- 2. Solving Practical Problems using concepts of Structural Dynamics
- 3. Learning's from the Past Earthquakes

- 4. Solving Examples of Dynamic Analysis using ANSYS
- 5. Importance & Applications of Dynamics
- 6. Importance of Soil Dynamics
- 7. Seismic Design & Detailing: Philosophy & Principles &
- 8. Overview of Geotechnical Earthquake Engineering for Seismic Design
- 9. Geotechnical Earthquake Resistant Structures A perspective
- 10.Basics of Structural Dynamics & Advance Applications
- 11.Dynamic Properties of Soil

### **STTP Objectives :**

- The prime objective of this STTP is to Study the applications & mathematical modeling of structural & geotechnical dynamics related to Civil Engineering structures.
- This STTP is relevant to faculty, and researchers who pursuing their higher studies in areas of structural & geotechnical engineering

### **STTP Program:**

### <u>Day 1</u>

### Session I: Inaugural function

Inaugural function of the STTP was conducted on 18th June 2018 at 11.00 am by the hands of Dr. M.G. Chandekar, Vice Chancellor, SGBAU Amravati University, Dr. A. I. Dhatrak, Dean Academics, Government College of Engineering, Amravati, Principal Dr. S. D. Wakde, Director Dr. D. G. Wakde, Vice-Principal Prof. Mohammad Zuhair .All HOD's & faculties were present on this occasion.

### Session II: Importance of Soil Dynamics.

This session was delivered by Dr. A. I. Dhatrak, Dean Academics, Government College of Engineering, Amravati on Importance of Soil Dynamics. Basics of soil dynamics were nicely delivered. Also each & every aspects of soil dynamics and its importance on structural stability was explained by Dr. Dhatrak wisely.

### <u> Day : 2</u>

### Session I: Structural Steel Design-A Limit State Approach

Session was conducted by Dr. L. M. Gupta, Professor VNIT, Nagpur. Dr. Gupta explained the basics of steel design by using new code IS 800: 2007. He has also explained difference between both new and old steel design code.

### Session II: Seismic Design & Detailing: Philosophy & Principles & Overview of Geotechnical Earthquake Engineering for Seismic Design

Dr. Ratnesh Kumar, Associate Professor, VNIT, Nagpur delivered this session; He discussed the practical situations where structure can be made earthquake resistant. Dr. Ratnesh Kumar also discussed past earthquake studies in India and also learnings from the same.

### <u> Day : 3</u>

### Sessions I: Solving Practical Problems using concepts of Structural Dynamics

The session was delivered by Dr. S. N. Madhekar, Professor, College of Engineering, Pune on Solving Practical Problems using concepts of Structural Dynamics. Dr. Madhekar explained the practical examples where structural dynamics comes into picture. Also some practical examples were solved in the session as an assignment.

### Session II: Geotechnical Earthquake Resistant Structures - A perspective

Dr. S. S. Pusadkar, Associate Professor, GCOE, Jalgaon delivered this session; He discussed the geotechnical aspects of earthquake engineering. Dr. Pusadkar also discussed failures of structure during past earthquake due to sudden changes in properties of soil.

### <u>Day: 4</u>

### Session I: Learning's from the Past Earthquakes

This session was delivered by Dr. P. S. Pajgade, Professor, PRMITR, Badnera on Learning's from the Past Earthquakes. Dr. Pajgade highlighted the structural failures during most of the severe earthquake studies in India as well as out of India. Dr. Pajgade also discussed some structural failures in nearby Amravati region and suggested remedial measures for the same.

### Session II: Basics of Structural Dynamics & Advance Applications

Session was conducted by Dr. S. N. Khante, , Associate Professor, GCOE Amravati. Dr. Khante explained the basics and advancement in structural dynamics, SDOF and MDOF systems. He has also explained importance of dynamics for structural design. Dr. Khante also discussed about piezoelectric materials and its application in structural health monitoring.

### <u>Day: 5</u>

### Session I: Solving Examples of Dynamic Analysis using ANSYS

This session was delivered by Dr. R. N. Khapre from Ramdeobaba College of Engineering, Nagpur, on Dynamic Analysis using ANSYS. Dr. Kharpe mnicely explained most of the simulations and types of analysis available in ANSYS software.

### Session II: Dynamic Properties of Soil

This session was delivered by Prof. S. W. Thakre Associate Professor, GCOE Amravati, on Dynamic Properties of Soil. Prof. Thakre explained the importance of dynamic properties of soil during structural design. Sir has explained the various laboratory and field test for checking dynamic properties of soil.

### <u>Day: 6</u>

### **Session I: Importance & Applications of Dynamics**

This session was delivered by Dr. A. R. Mundhada from PRMITR, Badnera, Amravati, on Importance & Applications of Dynamics. Sir wisely explained applications of dynamics and its importance for structural designing.

### **Session II: Valedictory Function**

The chief guest for Valedictory function was Dr. H. Y. Mohod, ISTE Chairman, Maharashtra state & Goa , Dr. A. R. Mundhada from PRMITR, Badnera, Principal Dr. S. D. Wakde, Director Dr. D. G. Wakde, Vice-Principal Prof. Mohammad Zuhair .All HOD's & faculties were present on this occasion.

### **Outcomes of the Training-Workshop:**

- 1) Participants got familiar with the basics of structural and geotechnical dynamics.
- 2) Participants were able to understand the application & practicability of structural and geotechnical dynamics & possibilities of their application in Civil Engineering.
- 3) Participants got familiar Advanced analysis options available in ANSYS.

At the end, test of participants was taken and feedback from participants were collected. Certificates were distributed to all participants.

### Photographs:



Dr. R. N. Khapre delivering expert lecture on Dt. 22.06.2018



Dr. S. N. Madhekar delivering expert lecture on Dt. 20.06.2018



Dr. S. S. Pusadkar delivering expert lecture on Dt. 20.06.2018



Dr. Ratnesh Kumar delivering expert lecture on Dt. 20.06.2018



Prof. S. W. Thakare delivering expert lecture on Dt. 22.06.2018



Dr. P. S. Pachgade delivering expert lecture on Dt. 21.06.2018



Dr. S. N. Khante delivering expert lecture on Dt. 21.06.2018



H.O.D. (Civil Dept.) P.R. Pote (Panil) College of Engg & Management Amravati. P. R. Pote (Patil) College of Engineering & Management, Amravati.

## Department of Civil Engineering

# ISTE Approved (Self Sponsored) STTP on "BASIC OF STRUCTURAL DYNAMICS AND GEOTECHNICAL DYNAMICS"

(From 18<sup>th</sup> June to 23<sup>rd</sup> June 2018)

## List Participants & Attendance

		18.06	.2018	19.06	.2018	20.06	.2018	21.06	.2018	22.06	.2018	23.06	2018	
Sr. No.	Name of Participants	Session-												
		01	02	01	02	01	02	01	02	01	02	01	02	
1	Mr. Swapnil Band	Ρ	d	Ρ	Р	Ρ	Р	P	Ρ	Ρ	P	Ρ	P	
2	Mr. Surabhi S. Somwanshi	Р	Р	Р	Ρ	A	Р	Ρ	Ρ	A	Р	d	Р	
3	Mr. Mayur Jirapure	Р	Р	A	Ρ	Р	d .	Ρ	Ρ	P	Р	P	P	
4	Mr. Vinay Kumar	Р	Р	P	A	Р	P	Ρ	Р	d	P	Р	A	
5	Mr. Sagar D. Malkhede	Р	Р	P	Ρ	Ρ	P	Р	Ρ	P	Р	Р	A	
6	Mr. Ram S. Wanare	Ρ	, A	Р	Ρ	Р	P.	Ρ	P	P	Р	Р	P	
7	Mr. Mohd. Shehazad	Р	Р	Ρ	Р	P	Ρ	P	Ρ	Р	d	Р	P	
8	Mr. Harshawardhan P. Nistane	Ρ	A	Р	Ρ	Ρ	P	P	Ρ	Ь	d	P	P	
6	Mr. Mohd. Zuhair	Р	Р	Ρ	P -	P	Ρ	P	Р	ď	d	P	P	
10	Mr. Sachin S. Saraf	Р	Р	P	Ρ	Ρ	Ρ	Ρ	Ρ	d	d	d	A	
11	Mr. Nilesh P. Bhopale	Ь	Р	Р	P	Ρ	Р	Ρ	Ρ	Р	d	P	P	
12	Mr. Anup K. Chitkeshwar	Р	Р	Р	Р	Ρ	Р	Ρ	Ь	ď	P	d	P	
13	Ms. Snehal R. Shirbhate	Р	Р	Р	Р	А	Ρ	Ρ	P	A	P	P	A	
14	Mr. Mohd. A. Rehman	Ρ	Ρ	Р	Р	Р	Р	Ρ	P	P	P	Ρ	Ρ	
15	Ms. Pallavi A. Deshmukh	P	Р	Р	Р	Р	A	P	P	P	V	d	Р	
16	Mr. Subodh V. Dhoke	Р	Р	Р	Р	P	P	Р	Р	P	P	Ρ	P	
17	Mr. Amit R. Wadnerkar	Р	Р	Ρ	P	P	P	d	d	Р	P	P	P	
18	Mr. Manish S. Deshmukh	Р	P	Р	P	P	P	Р	d	d	d	Ρ	Ρ	
19	Ms. Rina D. Wadhai	Р	Р	Р	A	P	P	P	Р	A	P	Ρ	A	
20 1	Ms. Tejaswini Junghare	Ρ	Р	Р	A	Р	Ρ	P	P	P	Ρ	P	d	
21 1	Mr. Parikshit N. Deshmukh	Ρ	Ρ	Ρ	Р	Р	Ρ	A	Ρ	P	A	Ρ	d	
22	Mr. Suhas V. Pawar	P	Р	P	A	Р	P	P	d	d	4	d	d	

H. K.D.V. Civil Pept.) P.R.Pote (Bau) College of Engg. & Management Armravati. m E

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### P. R. Pote (Patil) College of Engineering & Management (PRPCEM), Amravati Department of Civil Engineering

### Analysis of Feedback for STTP on "BASIC OF STRUCTURAL DYNAMICS AND GEOTECHNICAL DYNAMICS"

### No. of Participants: 20

Academic Year 2017-18

No 1	Particular The Course met its stated size	Strongly Agree (5 marks)	Agree (4 Marks)	Neutral (3 Marks)	Disagree (2 Marks)	Strongly Disagree (1 Marks)	% Feedback
2	The material was presented aims and onjectives	15	5	0	0	0	95.00
3	manner, The event was scheduled as a letter of the second scheduled as a schedule	14	5	1	0	0	93.00
4	The event was placed and suitable time	13	5	2	0	0	91.00
15	The event facilities	12	6	2	0	0	90.00
	satisfactory appropriate and	16	3	1	0	0	95.00
6 7	The event location was appropriate and satisfactory The trainer was well as a satisfactory	16	2	2	0	0	94.00
0	The trainer responded to	16	4	0	0	0	96.00
-	and satisfactory manner.	14	6	0	0	0	94.00
9	Overall the sessions were informative and valuable	14	6	0	0	0	94.00





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Principal P. R. Pote (Patil) Edu, & Welfare Trust's Group of institution's College of Engg. & Management Kathora Rosa AMRAVATI,

P. R. Pote (Patil) Education & Welfare Trust's Group of Institutes, College of Engineering & Management, Amravati Department of Civil Engineering

Short Term Training Programme "BASICS OF STRUCTURAL & GEOTECHNICAL DYNAMICS" Certificate of Participation

This is to certify that <u>Prof. Anup K. Chitkeshwas</u> From <u>P. R. P. C. E & M. Amagyati</u> has successfully participated in one week short term training programme on "Basics of Structural & Geotechnical Dynamics" ISTE Approved (Self sponsored) from 18th June to 23rd June 2018



Prof. Mohammad Zuhair H.O.D.



Short Term Training Programme "BASICS OF STRUCTURAL & GEOTECHNICAL DYNAMICS"

### Certificate of Participation

This is to certify that Prof. M.A. Rchman From P.R.P.C.E & M. Gmeavati

has successfully participated in one week short term training programme on

"Basics of Structural & Geotechnical Dynamics"

ISTE Approved (Self sponsored) from 18th June to 23rd June 2018

Co-ordinator

Prof. Monammad Zuhair H.O.D.

