



#### 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 of Engg. & Mgmt. 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 latest 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

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(+919822565805)  
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Email: bhopalenp@gmail.com, (+919823235374)

#### ADVISORY COMMITTEE:

Prof. Dr. S. K. Deshmukh, Principal, CoE, Akola  
Prof. Dr. A. R. Mundhada, PRMIT&R, Badnera  
Prof. Dr. S. N. Khante, GCoE, Amravati  
Prof. Dr. P. S. Paigade, PRMIT&R, Badnera  
Prof. Dr. S. S. Pusadkar, GCoE, Jalgaon  
Prof. Dr. K. N. Kadam, GCoE, Amravati

#### ORGANIZING COMMITTEE:

Mr. A. K. Chitkeshwar, Civil. Engg., Dept  
Mr. S. V. Dhoke, Civil. Engg., Dept  
Mr. M. A. Rehman, Civil. Engg., Dept  
Mr. A. R. Wadnerkar, Civil. Engg., Dept  
Mrs. S. R. Shirbhate, Civil. Engg., Dept  
Mrs. R. D. Wadhai, Civil. Engg., Dept  
Ms. T. S. Junghare, Civil. Engg., Dept

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

On

## "BASICS OF STRUCTURAL & GEOTECHNICAL DYNAMICS"

Date: 18<sup>th</sup> June to 23<sup>rd</sup> June 2018

Organized by

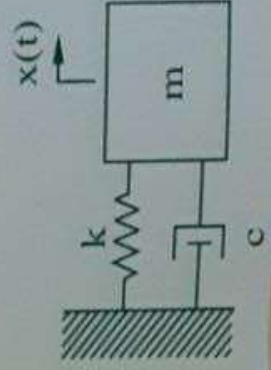
Department of Civil Engineering  
P. R. Pote (Patil) Education & Welfare Trust's  
Group of Institutions  
College of Engineering & Management,

Pote Estate, Gajanan Township, Kathora Road,  
Amravati-444605

0721-2970110, Fax : 0721-2530341

E-mail : prpoteatilcollege@gmail.com

Web : www.prpcm.org





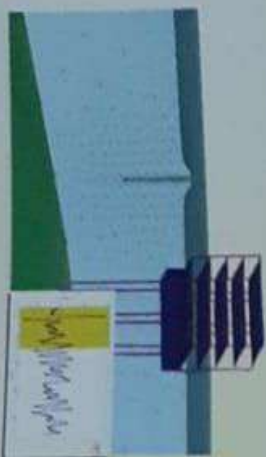
## ABOUT STP

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 Civil 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.

1. The prime objective of this STP is to Study the applications & mathematical modeling of structural & geotechnical dynamics related to Civil Engineering structures.
2. This STP 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. Paigade, Professor, PRMIT&R, Badnera  
Dr. Mrs. S. N. Madhakar, 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., VNIT, Nagpur  
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.



## Registration Form

ISTE Approved  
(Self Sponsored)

## Short Term Training Program (STTP)

On

## "BASICS OF STRUCTURAL & GEOTECHNICAL DYNAMICS"

Date: 18<sup>th</sup> June to 23<sup>rd</sup> June 2018

1. Name of Participant: \_\_\_\_\_
  2. Designation: \_\_\_\_\_
  3. Organization: \_\_\_\_\_
  4. ISTE member No.: \_\_\_\_\_
  5. Mobile Number: \_\_\_\_\_
  6. E-Mail: \_\_\_\_\_
  7. Mailing Address: \_\_\_\_\_
  8. Payment Details: - Cash / DD \_\_\_\_\_  
(DD, No., Date, Amount)
- Drawn on \_\_\_\_\_

(Applicant's Signature)

Date:

Place:

(Signature of HoD/Principal)



"Shri Chakrabarti Mahavidyalaya"

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

Institute Code : 1107

(Recognized by AICTE, New Delhi, Approved by Govt. of Maharashtra & 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.prcem.org, www.prpatilcollege.org

Date:10/06/2018

**CIRCULAR**

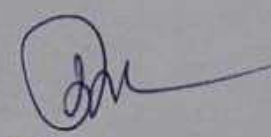
All the faculty members are here by informed that a self financed ISTE approved Short Term Training Program on "Basics of Structural Dynamics and Geotechnical Dynamics", from 18<sup>th</sup> to 23<sup>rd</sup> June, 2018 organized by Department of Civil Engineering.

Venue: Civil Engineering Department

  
PRINCIPAL  
P. R. Pote (Patil)  
College of Engineering & Management  
Amravati

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Principal  
P. R. Pote (Patil) Edu. & Welfare Trust's  
Group of Institution's  
College of Engg. & 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:**

#### **Day 1**

#### **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. Dhattrak, 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. Dhattrak, 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. Dhattrak wisely.

#### **Day : 2**

#### **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.

### **Day : 3**

#### **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.

### **Day: 4**

#### **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.

### **Day: 5**

#### **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 mnically 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.

### **Day: 6**

#### **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



Dr. S. N. Madhekar delivering expert lecture



Dr. S. S. Pusadkar delivering expert lecture



Dr. Ratnesh Kumar delivering expert lecture



Prof. S. W. Thakre delivering expert lecture

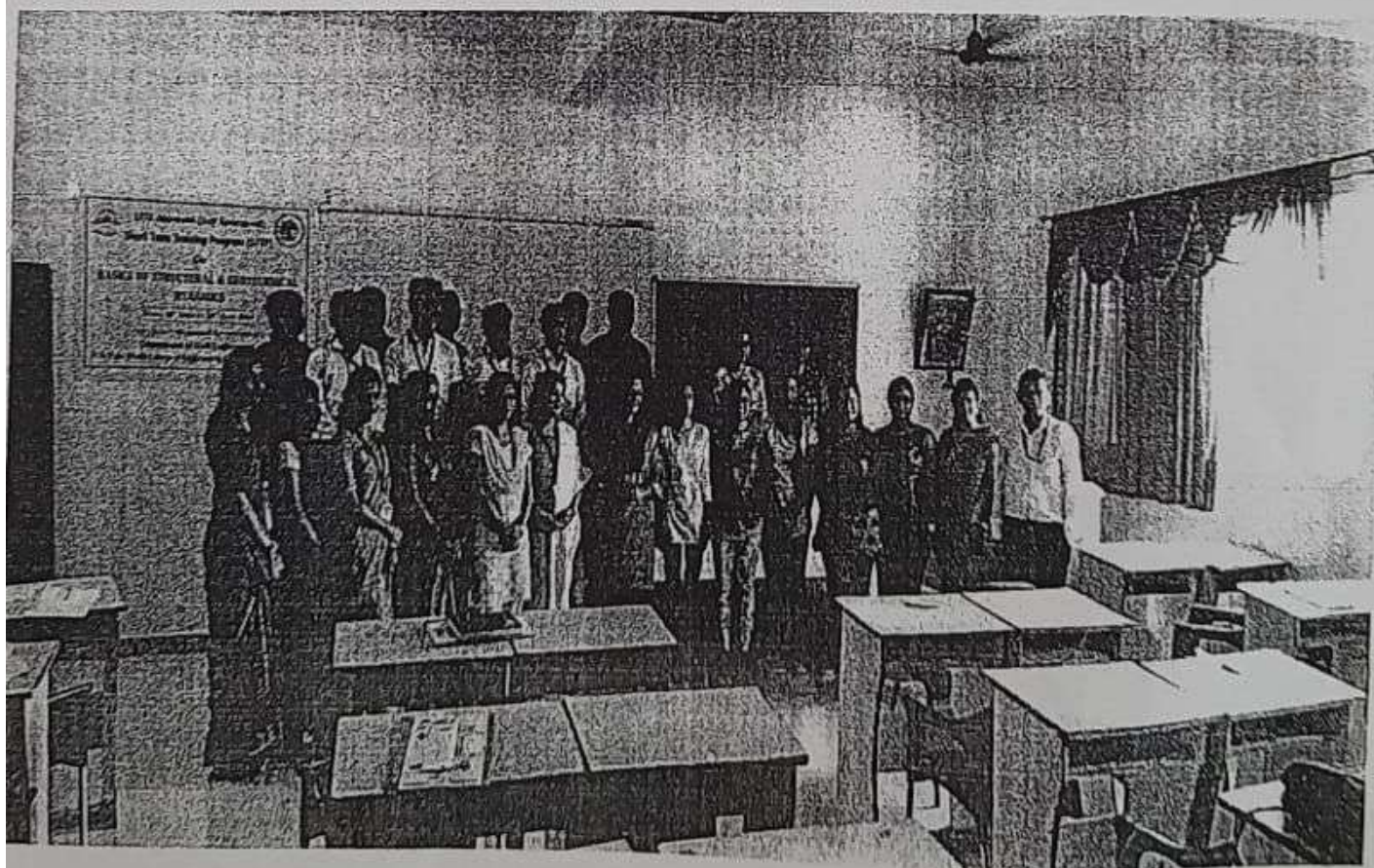
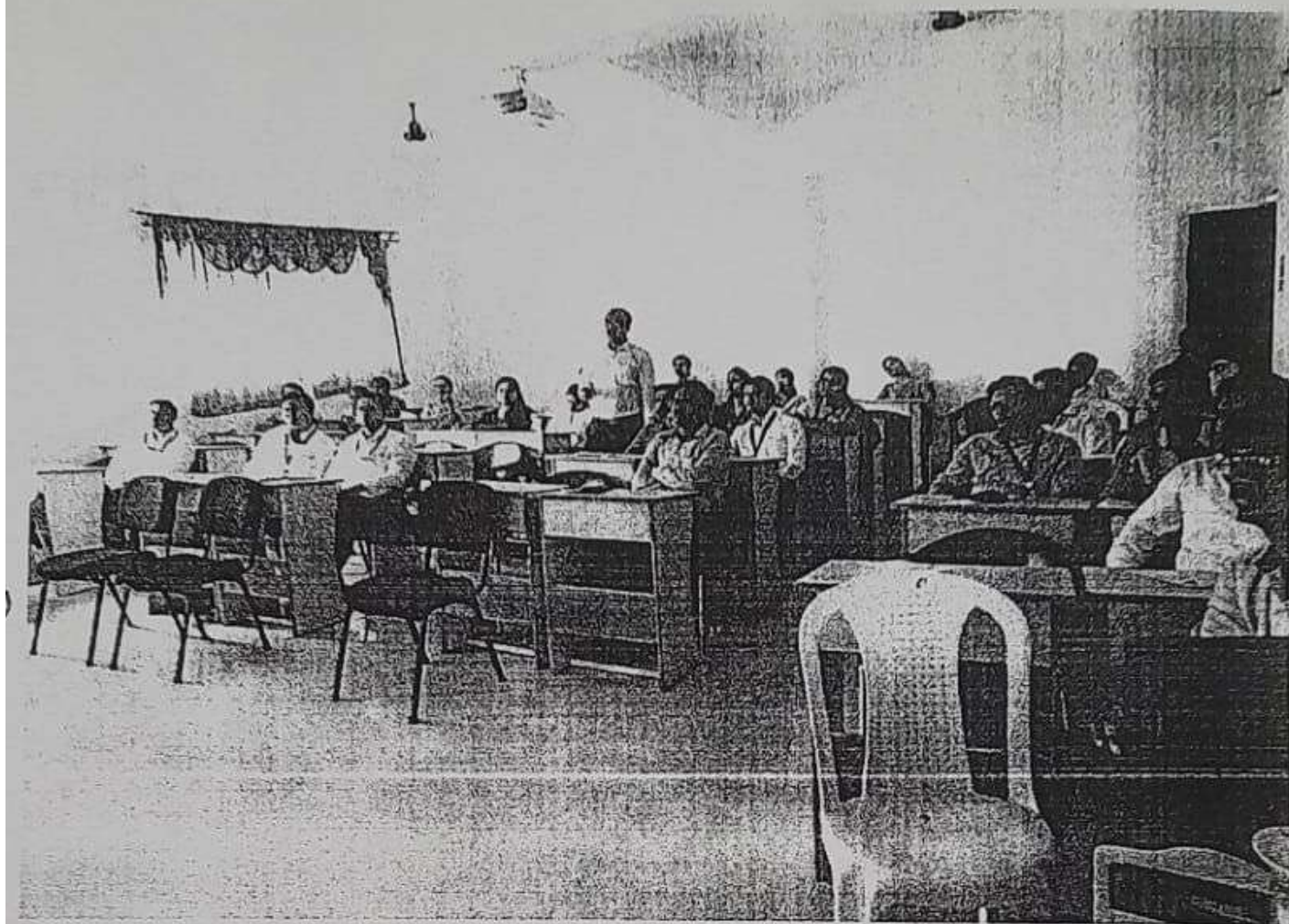


Dr. P. S. Pajgade delivering expert lecture



Dr. S. N. Khante delivering expert lecture





*Pratibha*  
H.O.D. (Civil Dept.)  
P.R. Pote (Patil) 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**

Sr. No.	Name of Participants	18.06.2018		19.06.2018		20.06.2018		21.06.2018		22.06.2018		23.06.2018	
		Session-01	Session-02	Session-01	Session-02	Session-01	Session-02	Session-01	Session-02	Session-01	Session-02	Session-01	Session-02
1	Mr. Swapnil Band	P	P	P	P	P	P	P	P	P	P	P	P
2	Mr. Surabhi S. Somwanshi	P	P	P	P	A	P	P	P	A	P	P	P
3	Mr. Mayur Jirapure	P	P	A	P	P	P	P	P	P	P	P	P
4	Mr. Vinay Kumar	P	P	P	A	P	P	P	P	P	P	P	A
5	Mr. Sagar D. Malkhede	P	P	P	P	P	P	P	P	P	P	P	A
6	Mr. Ram S. Wanare	P	A	P	P	P	P	P	P	P	P	P	A
7	Mr. Mohd. Shehazad	P	P	P	P	P	P	P	P	P	P	P	P
8	Mr. Harshawardhan P. Nistane	P	A	P	P	P	P	P	P	P	P	P	P
9	Mr. Mohd. Zuhair	P	P	P	P	P	P	P	P	P	P	P	P
10	Mr. Sachin S. Saraf	P	P	P	P	P	P	P	P	P	P	P	A
11	Mr. Nilesh P. Bhople	P	P	P	P	P	P	P	P	P	P	P	P
12	Mr. Anup K. Chitkeshwar	P	P	P	P	P	P	P	P	P	P	P	P
13	Ms. Snehal R. Shirbhate	P	P	P	P	A	P	P	P	A	P	P	A
14	Mr. Mohd. A. Rehman	P	P	P	P	P	P	P	P	P	P	P	P
15	Ms. Pallavi A. Deshmukh	P	P	P	P	P	A	P	P	P	A	P	P
16	Mr. Subodh V. Dhole	P	P	P	P	P	P	P	P	P	P	P	P
17	Mr. Amit R. Wadnerkar	P	P	P	P	P	P	P	P	P	P	P	P
18	Mr. Manish S. Deshmukh	P	P	P	P	P	P	P	P	P	P	P	P
19	Ms. Rina D. Wadhai	P	P	P	A	P	P	P	P	A	P	P	A
20	Ms. Tejaswini Junghare	P	P	P	A	P	P	P	P	P	P	P	P
21	Mr. Parikshit N. Deshmukh	P	P	P	P	P	P	A	P	P	A	P	P
22	Mr. Suhas V. Pawar	P	P	P	A	P	P	P	P	P	P	P	P

  
**H. G. D. (Civil Dept.)**  
**P. R. Pote (Patil) College of Engg. & Management**  
**Amravati.**

**P. R. Pote (Patil) College of Engineering & Management (PRPCEM), Amravati**

**Department of Civil Engineering**

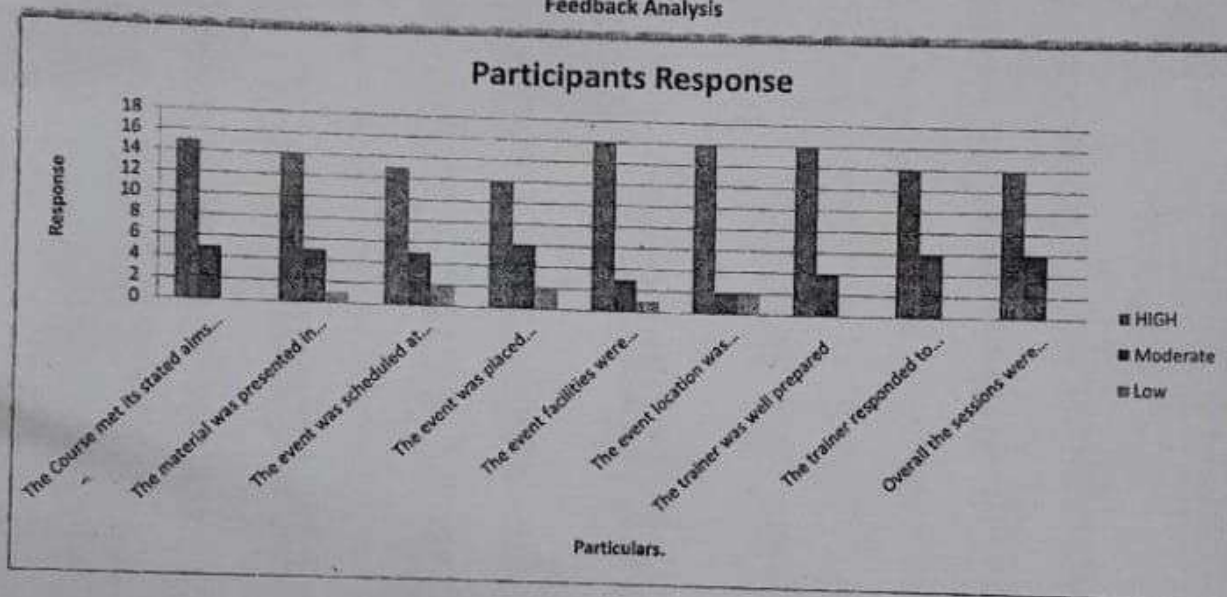
**Analysis of Feedback for STTP on "BASIC OF STRUCTURAL DYNAMICS AND GEOTECHNICAL DYNAMICS"**

**Academic Year 2017-18**

**No. of Participants: 20**

Sr. No	Particular	Strongly Agree (5 marks)	Agree (4 Marks)	Neutral (3 Marks)	Disagree (2 Marks)	Strongly Disagree (1 Marks)	% Feedback
1	The Course met its stated aims and objectives	15	5	0	0	0	95.00
2	The material was presented in clear and organised manner.	14	5	1	0	0	93.00
3	The event was scheduled at suitable time	13	5	2	0	0	91.00
4	The event was placed appropriately	12	6	2	0	0	90.00
5	The event facilities were appropriate and satisfactory	16	3	1	0	0	95.00
6	The event location was appropriate and satisfactory	16	2	2	0	0	94.00
7	The trainer was well prepared	16	4	0	0	0	96.00
8	The trainer responded to questions in an informative 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

**Feedback Analysis**



*[Signature]*  
H.O.D. (Civil Dept.)  
P.R. Pote (Patil) College of Engg. & Management  
Amravati.

*[Signature]*  
Principal  
P. R. Pote (Patil) Edu. & Welfare Trust's  
Group of Institution's  
College of Engg. & Management  
Kethora Road, 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 Prof. Anup K. Chitkeshwar

From P. R. P. C. E & M Amravati

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. Nilesh Bhosale

Co-ordinator

  
Prof. Sachin Saraf

  
Prof. Mohammad Zuhair

H.O.D.

  
Dr. S.D. Wakde

Principal





**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* Prof. M. A. Rehman

*From* P.R.P.C.E & M. Amravati

*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. Nilesh Bhopale

Co-ordinator

  
Prof. Sachin Saraf

  
Prof. Mohammad Zuhair

H.O.D.

  
Dr. S.D. Wakde

Principal