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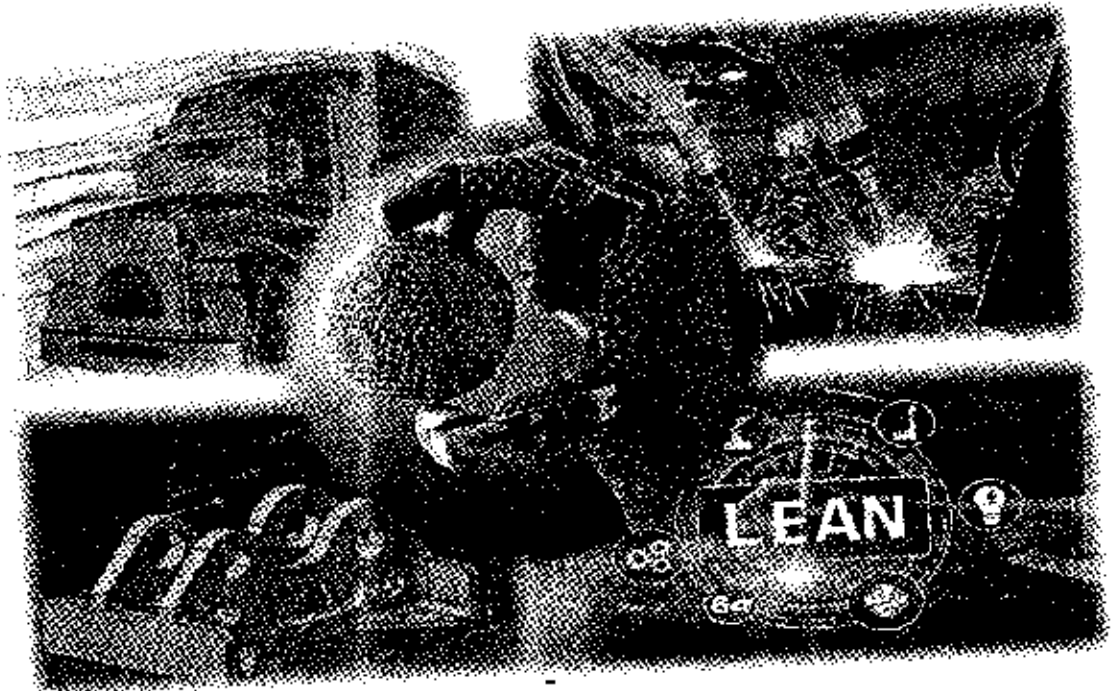
Short Term Training Program (STTP)

On

**"Exploring Advances and Research Opportunities in
Mechanical Engineering"**

Date : 14th June – 18th June 2021

Organized by
Department of Mechanical Engineering



- Coordinator -
Dr.P.R. Wadnerkar
Dr.S.M.Tondre

P. R. Pote (Patil) Education & Welfare Trust's Group of
Institutions

College of Engineering & Management, Amravati
(Recognized by AICTE, New Delhi & Affiliated to SGBAU, Amravati)

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Sponsored



About the Department

Department of Mechanical Engineering is collaborative product of many technical minds. A team of highly qualified, experienced and dedicated faculty members under the leadership of Head of Department provides quality education, conducts strong research programs, foster close partnership with industry and focus on cutting technologies and knowledge about the current trends in the field of Mechanical Engineering.

The academic programmes include frequent industrial visits for students to expose them to real life engineering scenario. The department takes keen interest in inculcating an attitude and temperament for practicing ethics in the mind of students and preparing them for being part of collective efforts for nation building. This has helped students for the challenges they face in the outside world and helping them secure a better professional future.

About the STTP

Aim of this STTP is to provide upgradation of knowledge and skills for students, research scholars, faculties, scientists and industrial persons. The course will provide a national level forum to be familiar with the advances in mechanical engineering to understand various recent trends and explore research avenues to interested students, researchers and practitioners. The lectures will be delivered by distinguished experts in their field. This one-week short term course will include lectures, special case studies and hands on training in Advances in Mechanical, Industrial Engineering. The STTP is intended to bring industry and academia close to each other. By providing scholarly inputs to those who already have domain knowledge of their discipline, the programme will offer prospects of a career within academia or to research positions.

Patrons

- Hon'ble Shri. Pravin Kumar R. Pote President, P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions, Amravati (M.S.)
- Hon'ble Shri Shreyas P. Pote Vice-President, P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions, Amravati (M.S.)
- Hon'ble Dr. S. A. Ladhake Director, P. R. Pote (Patil) Education & Welfare Trust's Group of Educational Institutions, Amravati (M.S.)
- General Chair Dr. A. V. Kale, Principal, PRPCE&M Dr. Mohammad Zubair Vice-Principal, PRPCE&M
- STTP Convener Dr. P.R. Wadnerkar & Dr. S.M. Tongre

About the Institution

P. R. Pote (Patil) Education & Welfare Trust's Group of Institutions, Amravati is a foremost name in Higher Education in Maharashtra. The Group offers UG, PG and doctoral courses in various disciplines of Engineering, Management and Technology. Various courses offered by the Group include BE, MF, Ph.D, MBA, MCA, Polytechnic, B. Arch, B.Ed., B. Pharm., D. Pharm., B.Sc. (Agriculture) and CBSE Schooling. By the blessings of Shri Sant Gajanan Maharaj, we aim at developing a pursuit of knowledge in students, commitment to economic, social & cultural upliftings of masses. The Institute named PRPCE&M highly believes in nurturing ethics and moral values in students. The Institute has dedicated teaching staff, digital classrooms, Wi-Fi campus, finishing school, Placement cell, state-of-art auditorium, well equipped laboratories, and digital library with quality infrastructure. Our constant endeavour is to provide gamut of opportunities for our students to make them skilled engineers, top class managers and also good citizens.

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✧ Registration Process ✧

The Registration is free for all participants. E-Certificate will be issued to participants who will be attending all the sessions including quiz and feedback.

For Registration: Click Below Link
<https://forms.gle/3YNRuzoDGG2uhpG7>

✧ Mode of Conduction ✧

Online Using Zoom Apps

✧ Vision and Mission of the Institution ✧

Vision of the Institution

"To flourish as a centre of excellence for producing the skilled technocrats and committed human beings"

Mission of the Institution

- To create conducive environment for teaching & learning.
- To impart quality education through demanding academic programs.
- To enhance career opportunities by exposure to Industries & recent technologies.
- To develop professionals with strong ethics and human values for the betterment of Society.

✧ For any queries please contact ✧

- Dr. P.R.Wadnerkar
 Mob. No. 8830274480, 9422193566
 Email: p_wadnerkar@rediffmail.com
- Dr. S.M.Tondre
 Mob. No. 9422153885
 Email: mechprpcem12@gmail.com

✧ Objectives of the STTP ✧

- To provide advanced knowledge on Mechanical Engineering including thermal, design, production and industrial engineering.
- To promote research and development environment by disseminating knowledge on recent developments in mechanical engineering along with recent tools and their scopes.
- To do research and publications of international standard.

✧ Eminent Speaker ✧

- Dr.D.S.Ingole, HOD (Mech Engg) & Dean Administration, PRMTTR, Badnera
- Dr.Vivek K. Sunapwar, Principal, Lokmanya-Tilak College of Engineering, Navi Mumbai
- Dr. Bhushan Patil, Dean (R&D), Father Rodrigues College of Engg., Mumbai
- Dr. Ashish Mahalle, HOD, Dept. of Mech, Engg., Government College of Engineering, Amravati
- Dr. S. D. Kalpande, Dean Academic, Guru Govind Singh College of Engineering, Nashik

✧ Topics to be covered ✧

- Engineering Challenges in Future
- Towards Green through Lean
- Advance Trends in Mechanical and other interdisciplinary fields for Research.
- Statistical Analysis in Research using Open Source Software - JAMOVI
- Implementation of Industrial Engineering tool for Performance improvement of Organizations



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P. R. Pote (Patil) College of Engineering & Management, Amravati
ISTE Approved Online STTP on

“Exploring Advances and Research Opportunities in Mechanical Engineering”

(From: 14/06/2021 To 18/06/2021)

Schedule of STTP

Sr. No.	Topic	Date	Name of Resource Person
1	Engineering Challenges in Future	14/06/2021 Monday (Day-01) Time : 2.00 P.M.	Dr. D.S.Ingole, Head, Dept. of Mech.Engg & Dean Administration Prof. Ram Meghe Institute of Technology and Research, Badnera
2	Towards Green through Lean	15/06/2021 Tuesday (Day-02) Time : 2.00 P.M.	Dr.V.K.Sunnapwar Principal, Lokmanya Tilak College of Engineering, New Mumbai.
3	Advance Trends in Mechanical and other interdisciplinary fields for Research.	16/06/2021 Wednesday (Day-03) Time : 2.00 P.M.	Dr. A.M.Mahalle, Head, Dept. of Mech.Engg Govt. College of Engineering, Amravati
4	Statistical Analysis in Research using Open Source Software - JAMOVI	17/06/2021 Thursday (Day-04) Time : 2.00 P.M.	Dr. Bhushan Patil Professor & Dean Research, Fr. Conceicao Rodrigues College of Engineering, Mumbai
5	Implementation of Industrial Engineering tool for Performance improvement of Organizations.	18/06/2021 Friday (Day-05) Time : 2.00 P.M.	Dr. S.D.Kalpande Dean Academic, Guru Govind Singh College of Engineering, Nashik

• Time of STTP: 2.00 P.M

For: - One Week STTP on "Exploring Advances and Research Opportunities in Mechanical Engineering"

Day-3: Resource Person

Dr. A.M.Mahalle, Head, Dept. of Mech.Engg, Govt. College of Engineering, Amravati

Topic: Advance Trends in Mechanical and other interdisciplinary fields for Research.

Date: 19th June 2021

Time: 02:00 PM

Join Zoom Meeting :

<https://us02web.zoom.us/j/6963770153?pwd=YzhNY3VyUm1jUjg4cFlyRVAYK09yUT09>

Day 04- Link

P. R. Pote Patil Group Amravati is inviting you to a scheduled Zoom meeting.

For: - One Week STTP on "Exploring Advances and Research Opportunities in Mechanical Engineering"

Day-4: Resource Person

Dr. Bhushan Patil, Professor & Dean Research, Fr. Conceicao Rodrigues College of Engineering, Mumbai

Topic: Statistical Analysis in Research using Open Source Software - JAMOVI

Date: 17th June 2021

Time: 02:00 PM

Join Zoom Meeting :

<https://us02web.zoom.us/j/6963770153?pwd=YzhNY3VyUm1jUjg4cFlyRVAYK09yUT09>

Day 05- Link

P. R. Pote Patil Group Amravati is inviting you to a scheduled Zoom meeting.

For: - One Week STTP on "Exploring Advances and Research Opportunities in Mechanical Engineering"

Day-5: Resource Person

Dr. S.D.Kalpande, Dean Academic, Guru Govind Singh College of Engineering, Nashik

Topic: Implementation of Industrial Engineering tool for Performance improvement of Organizations.

Date: 18th June 2021

Time: 02:00 PM

Join Zoom Meeting :

<https://us02web.zoom.us/j/6963770153?pwd=YzhNY3VyUm1jUjg4cFlyRVAYK09yUT09>

Research". Dr. Mahalle in his lecture focused on thrust area of Thermal engineering like Heat Pipe, Porous material, Green roof and other interdisciplinary fields.

At Day 4 : Session started with speaker **Dr. Bhushan Patil**, Professor & Dean Research, Fr. Conceicao Rodrigues College of Engineering, Mumbai. Topic of his session was Statistical Analysis in Research using Open Source Software - JAMOVI. Dr. Bhushan Patil gives idea about various statistical Analysis software, how the statistical software were used to perform certain statistical tests. He then introduced one of open source software for analysis i.e. Jamovi and performed various tests on it.

At Day 5 : Session started with speaker **Dr. S.D.Kalpande**, Dean Academic, Guru Govind Singh College of Engineering, Nashik. Topic of his session was "Implementation of Industrial Engineering tool for Performance improvement of Organizations". Dr.S.D.Kalpande explained one of case on Total Preventive Maintenance for optimization of organization by using questionnaire based research. He thoroughly explain each and every aspects of his case study and statistical part of analysis i.e ANOVA, Chi-square test, Model fit, R-square test etc.

Finally, the course was formally wrapped up with Valedictory ceremony on 18th May 2021, in the presence of participants and distinguished faculty members. The course content, its delivery and other facilities were rated adequate through online google sheet feedback of participants. In concluding part of the ceremony, vote-of-thanks was given by Dr.S.M.Tondre, the Programme coordinator.

Heat exchangers in Piping (continued)

- Generally used in heat exchangers to enhance heat transfer between the main surface and another fluid.
- Types of simple heat exchangers — horizontal, spiral, annular, cylindrical, and vertical, have been used with different geometrical configurations.

Heat pipes

What are heat pipes?

- Heat pipes are recognized as one of the most efficient passive heat transfer technologies available.
- Combine the principles of both thermal conduction and phase transition to effectively transfer heat between two solid surfaces.
- Integrates with heat exchangers and heat sinks — gives key advantages:
 - Compact size
 - Lower manufacturing costs
 - Increased thermal conductivity
 - Good temperature distribution
 - Reliability of operation

Category	Value 1	Value 2	Value 3
Group 1	10	20	30
Group 2	40	50	60
Group 3	70	80	90

- (B) Supply chain
(C) Healthcare
(D) All of the above

9) Who is considered to be the father of Six Sigma?

- A) Bill Smith
B) Deming
C) Crosby
D) Taguchi

10) Engineering challenges to personalized medicine is ;

- A) Developing better systems to rapidly assess a patient's genetic profile
B) Collecting and managing massive amounts of data on individual patients
C) To create inexpensive and rapid diagnostic devices such as gene chips and sensors able to detect minute amounts of chemicals in the blood.
D) All above

11) What is a potential benefit that could one day be achieved with 3Dbioprinting

- A) To help patients who are in need of new tissues or organs
B) To aid in the testing of new drugs
C) To reduce the risk of transplant rejection using host cells
D) All of the above

12) _____ are supportive structures used in tissue engineering, these allow the cells to propagate and form a tissue.

- A) Scaffolds
B) Blood
C) Bones
D) None of above

13) The ANOVA procedure is a statistical approach for determining whether or not

- A) the means of two sample are equal
B) the means of two or more samples are equal
C) the mean of more than two samples are equal
D) the mean of two or more populations are equal

14) What is the purpose of a simple linear regression?

- A) To assess whether there is a significant difference between repeated measures
B) To predict scores on a dependent variable from scores on multiple independent variables
C) To predict scores on a dependent variable from scores on a single independent variable
D) To predict scores on an independent variable from scores on multiple dependent variables

15) What does the Adjusted R squared value tell you?

- A) The Adjusted R squared value tells you if there is a positive relationship
B) The Adjusted R squared value tells you if there is a significant difference
C) The Adjusted R squared value tells you if there is a significant relationship
D) The Adjusted R squared value tells you how much of the variance in the dependent variable can be accounted for by the independent variable

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Session Feedback and Quiz Result

Sr.No	Name of Participants	Quiz Score Out of 30	Result	Overall Feedback
1.	Pawan Kishor Shivankar	18	Pass	excellent
2.	Gajanan Mandavgade	22	Pass	excellent
3.	Dhiraj Vijay Astonkar	22	Pass	good
4.	Sachin Vishwanath Shinde	24	Pass	excellent
5.	Sanjeev Gupta	20	Pass	excellent
6.	Keshav R. Pagar	20	Pass	good
7.	Ganesh Mahalle	18	Pass	good
8.	Manish Gopichand Walecha	18	Pass	excellent
9.	Abdul Sayeed A W Shalkh	24	Pass	excellent
10.	SANJEEV GUPTA	30	Pass	excellent
11.	Pranav Gajanan Firke	22	Pass	excellent
12.	Dr Dheeraj Sheshrao Deshmukh	20	Pass	excellent
13.	Prof. Sumit Satish Jamkar	28	Pass	excellent
14.	Ketan Vijay Dhande	20	Pass	good
15.	Rahul R. Chakule	22	Pass	good
16.	Prof Yogesh Deepak Bansod	18	Pass	excellent
17.	Yogita Bhagat	22	Pass	excellent
18.	Mr. Sumit Subhash Kalmegh	30	Pass	excellent
19.	Mr. Ganesh Nandkumar Bhalerao	30	Pass	excellent
20.	Dr. Kiran Jadhao	24	Pass	excellent
21.	Shrikant G. Dalu	22	Pass	excellent
22.	ASHUTOSH MISHRA	24	Pass	excellent
23.	Sharad Kisan Nirgude	18	Pass	excellent
24.	Dr. Manoj Baseshankar	20	Pass	excellent
25.	Pawan Avinashrao Mokhadkar	20	Pass	good
26.	SIVASANKARAN M	20	Pass	excellent
27.	P.Umamaheswarrao	20	Pass	excellent
28.	Ashish Deshmukh	22	Pass	good
29.	Sunil J Rajpal	24	Pass	good

**One week Online Short-Term Training Program
(STTP) on "Exploring Advances and Research
Opportunities in Mechanical Engineering",
List of Participants**

Sr.No.	Full Name of Participant
1	Mr. Rajesh Pokale
2	Prof Y D Bansod
3	Mr. Amol Shivaji Adkine
4	Kunal Uday Shinde
5	Sanjeev Gupta
6	Sapali Mallikarjun Revanadcha
7	Ashish Prakash Borhade
8	Savant Sachin Govind
9	Ajay W. Mahore
10	Abdul Sayeed AW Shaikh
11	Shrikant G. Dalu
12	Ashutosh Mishra
13	Avinash V. Gawkwad
14	Satish P. Pawar
15	Shridhar S. Mendhe
16	Dr. Sagar Suryakant Gaddamwar
17	Dr. Rahul Gharekar
18	Prof N.R. Deshmukh
19	Dr. Parag Ramrao Wadnerkar
20	Swapnil Anil Pande
21	Pavan kumar Thimmaraju
22	Dr. Sagar Chandrakant Jirapure
23	Dr. M. Ayaz Afsar
24	Shashibhushan Vinodkumar Mishra
25	Sacnin Bhanatrao Londe
26	Sunil Madhukar Mahajan
27	Prof. Ashvini D. Nakhale
28	Yogita Bhagat
29	Mona Prashant Dange
30	Prashant D. Dange
31	Umakant Vyankatesh Kongre
32	Pawan Avinashrao Mokhedkar
33	Mr. Amol Shivaji Adkine
34	Dr. Vivek y. Ganohwar
35	D Nanda Kumar
36	Dr. Somdatta Tondre
37	Anus Narsing Chavan
38	Shivaji Khanderao Maknikar
39	Bharath V
40	Dhananjay Subhash Chinchkar
41	Dr. Pankaj S. Ardak
42	Dr. Kiran K. Jadhao
43	Dr Dhaeraj Shashrao Deshmukh
44	Sunil J Rajpal



**P. R. POTE (PATIL) GROUP OF EDUCATION & WELFARE TRUST'S
COLLEGE OF ENGINEERING & MANAGEMENT, AMRAVATI**



Accredited with "Grade A" by NAAC Approved by AICTE, New Delhi and affiliated to Sant Gadge
Baba Amravati University, Amravati (M.S.)

Certificate

This is to certify that, Dr.Parag Ramrao Wadnerkar of P. R. Pote College of Engineering & Management, Amravati (Name of institute) has attended a One Week Short-Term Online Course on "EXPLORING ADVANCES AND RESEARCH OPPORTUNITIES IN MECHANICAL ENGINEERING" sponsored by Indian Society for Technical Education (ISTE), New Delhi during 14/06/2021 to 18/06/2021 organised by Department of Mechanical Engineering at P. R. Pote (Patil) College of Engineering & Management, Amravati.

Certificate ID: PRPCEM-STTPMech-45

[Signature]

Dr. S. A. Ladhake
Director

[Signature]

Dr.P.R.Wadnerkar/ Dr. S.M.Tondre
STTP Coordinator

[Signature]

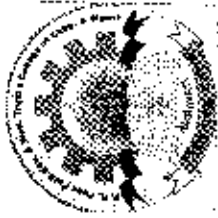
Dr. A. V. Kale
Principal

[Signature]

ISTE Sanction Order: ISTE/Proceedings/Online STTP-SF-MAH-010/2021-22 Dated May 17, 2021



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COLLEGE OF ENGINEERING & MANAGEMENT, AMRAVATI**



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Baba Amravati University, Amravati (M.S.)

Certificate

This is to certify that, **Dr.Sagar Chandrakant Jirapure** of **JDIET, Yavatmal**(Name of institute) has attended a One Week Short-Term Online Course on "**EXPLORING ADVANCES AND RESEARCH OPPORTUNITIES IN MECHANICAL ENGINEERING**" sponsored by Indian Society for Technical Education (ISTE), New Delhi during 14/06/2021 to 18/06/2021 organised by Department of Mechanical Engineering at **P. R. Pote (Patil) College of Engineering & Management, Amravati.**

Certificate ID: **PRPCEM-STTPMech-46**

Dr. S. A. Ladhake
Director

Dr.P.R.Wadnerkar/ Dr. S.M.Tondre
STTP Coordinator

Dr. A. V. Kale
Principal

ISTE Sanction Order: ISTE/Proceedings/Online STTP-SF-MAH-010/2021-22 Dated May 17, 2021



**P. R. POTE (PATIL) GROUP OF EDUCATION & WELFARE TRUST'S
COLLEGE OF ENGINEERING & MANAGEMENT, AMRAVATI**



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Baba Amravati University, Amravati (M.S.)

Certificate

This is to certify that, **Dr. Umakant Vyankatesh kongre of Jawarharlal Darda Institute of Engineering and technology** (Name of institute) has attended a One Week Short-Term Online Course on "**EXPLORING ADVANCES AND RESEARCH OPPORTUNITIES IN MECHANICAL ENGINEERING**" sponsored by Indian Society for Technical Education (ISTE), New Delhi during 14/06/2021 to 18/06/2021 organised by Department of Mechanical Engineering at P. R. Pote (Patil) College of Engineering & Management, Amravati.

Certificate ID: PRPCEM-STTPMech-48

Dr. S. A. Ladhake
Director

Dr.P.R.wadnerkar/ Dr. S.M.Tondre
STTP Coordinator

Dr. A. V. Kale
Principal

ISTE Sanction Order: ISTE/Proceedings/Online STTP-SF-MAH-010/2021-22 Dated May 17, 2021