

St. John College of Engineering and Management

Autonomous Institute

(A Christian Religious Minority Institution)

Approved by AICTE and DTE, Affiliated to University of Mumbai / MSBTE

DTE Code : 3218 AICTE Permanent ID : 1-4790201



NAAC Accredited with Grade 'A+', Three Programs NBA Accredited

AF 5

REPORT

Name of the Activity	ISTE Approved one week online STTP on "Advances in Manufacturing in the Context of Industry 4.0"		
Date & Time	3 rd February - 7 th February 2025	Department/Committee	Mechanical Engineering
Venue	SJCEM, Palghar	No. of Participants	130
Nature of Activity	Online Mode	Mode of Activity	Online
Name of Activity In-charge	Mr. Vivek S. Narnaware Mr. Chirag Kale	Name of Activity Coordinator	Mr. Vivek S. Narnaware Mr. Chirag Kale
Name and Affiliation of Resource person	<ol style="list-style-type: none">1. Dr. Kamal Shah, Principal, SJCEM2. Dr. Jagadish, Assistant Professor Indian Statistical Institute Bangalore3. Dr. Srinath Gudur, Assistant Professor, VJTI Mumbai4. Dr. Rakesh Himte, Principal, VCET, Vasai5. Dr. Santosh Rane, Associate Professor, SPCE, Mumbai		

Details of Activity:

Day 1 (03/02/2025) : Inaugural Session (6.00 p.m. to 6.30 p.m.) | AI for Industry 4.0 by Dr. Kamal Shah, Principal, SJCEM (6.30 p.m. to 8.30 p.m.)

Day 2 (04/02/2025) : Sustainability and Green Manufacturing in Industry 4.0 by Dr. Jagadish, Assistant Professor Indian Statistical Institute Bangalore (6.30 p.m. to 8.30 p.m.)

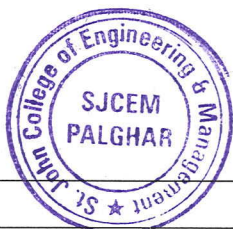
Day 3 (05/02/2025) : Additive Manufacturing (3D Printing) in the Era of Industry 4.0 by Dr. Srinath Gudur, Assistant Professor, VJTI (6.30 p.m. to 8.30 p.m.)

Day 4 (06/02/2025) : Challenges and Opportunities in Adopting Industry 4.0 by Dr. Rakesh Himte, Principal, VCET (6.30 p.m. to 8.30 p.m.)

Day 5 (07/02/2025) : Cyber-Physical Systems (CPS) and Digital Twins in Manufacturing by Dr. Santosh Rane, Associate Professor, SPCE (8.00 p.m. to 10.00 p.m.)

Activity Information:

Objectives	<ul style="list-style-type: none">▪ To explore and understand the integration of advanced technologies like Artificial Intelligence (AI), Cyber-Physical Systems (CPS), and Digital Twins within manufacturing processes, emphasizing their role in achieving the objectives of Industry 4.0.▪ To provide insights into the application and benefits of emerging trends such as Additive Manufacturing (3D Printing) and sustainable practices, highlighting their significance in driving innovation and fostering eco-friendly manufacturing solutions.▪ To discuss the challenges and opportunities in adopting Industry 4.0 technologies, focusing on strategies for overcoming barriers and leveraging advancements to enhance productivity, efficiency, and sustainability in manufacturing systems.
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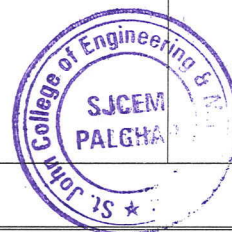


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Target Audience	SJCEM Faculty Members, Non –SJCEM Faculty, Industry Persons, UG/PG/Ph D Student
Methodology	The Short-Term Training Program (STTP) on "Advances in Manufacturing in the Context of Industry 4.0" focuses on equipping participants with an in-depth understanding of the transformative technologies driving modern manufacturing. It emphasizes the integration of Artificial Intelligence (AI), Cyber-Physical Systems (CPS), Digital Twins, and their applications in achieving smart and efficient manufacturing systems. The program highlights the pivotal role of Additive Manufacturing (3D Printing) as a disruptive innovation and explores the significance of sustainability and green manufacturing practices in the industry 4.0 era. Additionally, the STTP addresses the challenges and opportunities in adopting these advancements, aiming to foster strategies for enhancing productivity, operational efficiency, and environmental responsibility in manufacturing processes. Through expert-led sessions and discussions, the program aims to bridge the gap between theoretical knowledge and practical implementation of Industry 4.0 technologies.
Outcomes	<ul style="list-style-type: none"> ▪ Demonstrate a comprehensive understanding of Industry 4.0 technologies such as Artificial Intelligence (AI), Cyber-Physical Systems (CPS), and Digital Twins, and their applications in modern manufacturing processes. ▪ Analyze the role of Additive Manufacturing (3D Printing) and sustainable practices in fostering innovation and achieving environmental goals within the manufacturing sector. ▪ Evaluate the challenges and opportunities associated with implementing Industry 4.0 technologies and propose effective strategies to enhance productivity, efficiency, and sustainability in manufacturing systems.

SWOT Analysis of the Event:

Strength	Weakness	Opportunity	Threats
Comprehensive coverage of advanced topics in manufacturing like Ai for Industry 4.0, sustainability and green manufacturing, metal additive manufacturing challenges and opportunities in adopting Industry 4.0 and CPS and digital twin in manufacturing etc.	Some of the participants show varying attendance rates indicating engagement issues during specific days.	Expanded outreach by involving more participants from different industries and regions.	Competition from other institutions offering similar kind of programs may affect future participants rates.





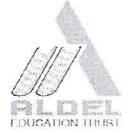
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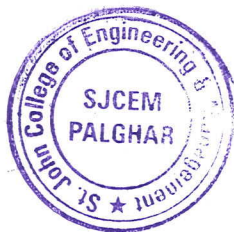
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High participants rate with over 100 attendees ,demonstrating strong interest and outreach.		Incorporate more hands on activities and real world case study for deeper understanding.	Rapid advancement in technology may require frequent updates to program contents to stay relevant.
Esteemed resource persons with intensive research background in their domain		Opportunities to integrate more emerging topics like AI for industrial robotics, advanced supply chain management, futuristic development towards Industry 5.0 etc.	
Positive feedback on resource person's strong communication skills and clarity of content delivery.			
Regular assignments for knowledge enrichment in topics learned during the session.			

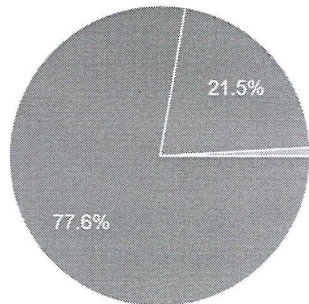
Feedback Analysis: *Feedback in graphical form (P.T.O.)*



Feedback Analysis

Guest Session objectives were stated clearly and met.

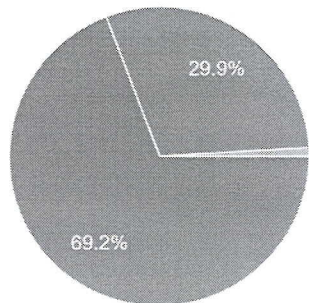
107 responses



- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

The Guest Session was well planned and organized.

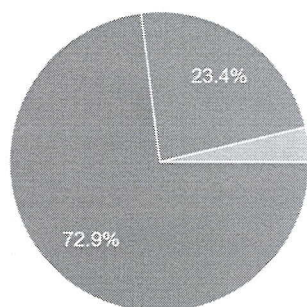
107 responses



- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

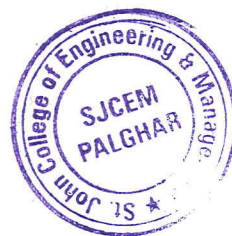
The information and/or skills presented by the resource person were relevant and useful.

107 responses



- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

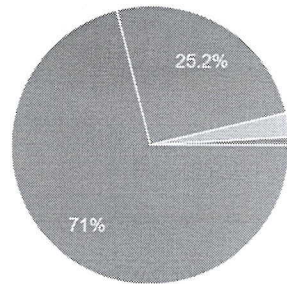
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Feedback Analysis

The guest speaker provided adequate time for questions and answered them satisfactorily.

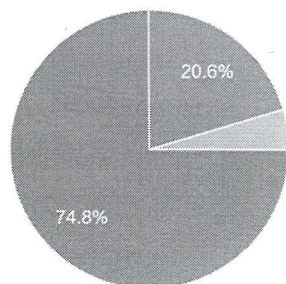
107 responses



- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

This session increased my knowledge and skills.

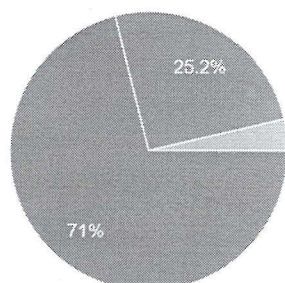
107 responses



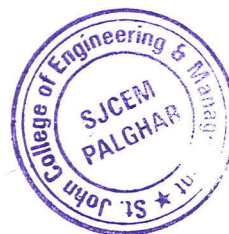
- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

The session was well-paced within the allotted time.

107 responses



- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree





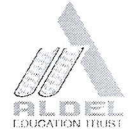
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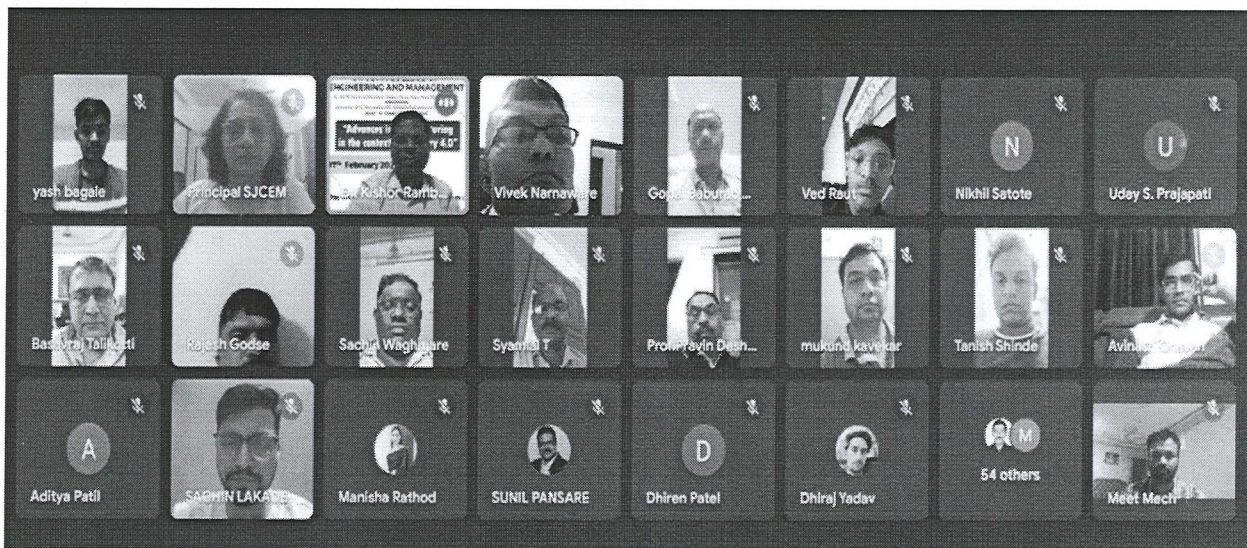
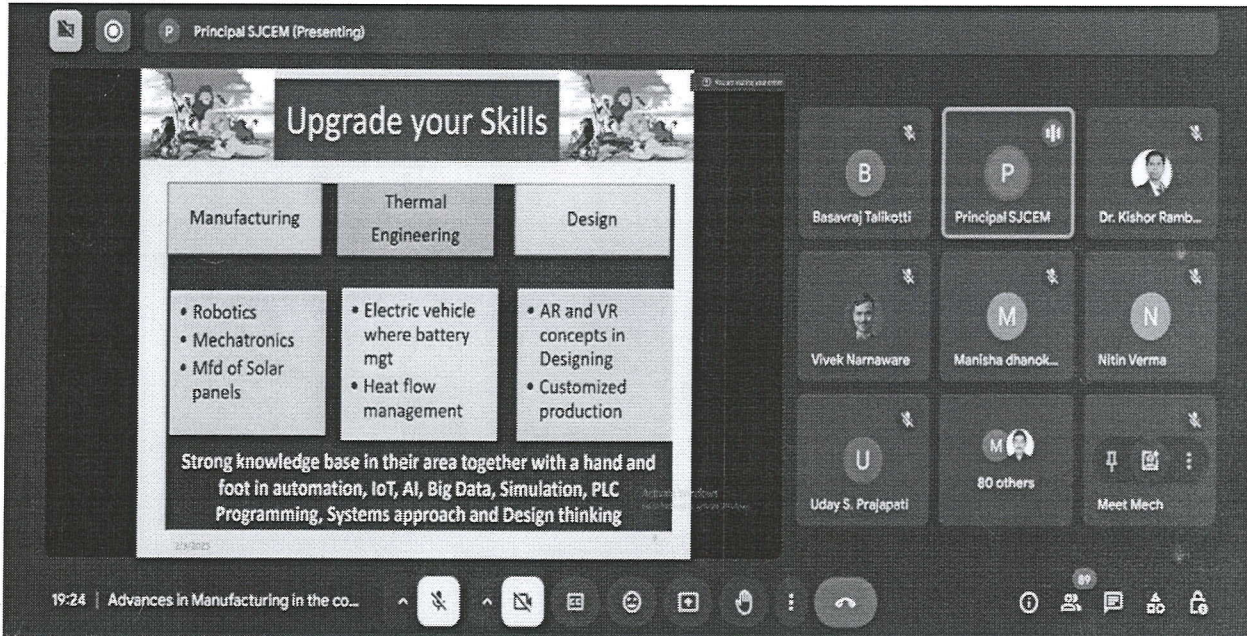
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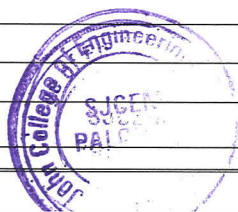
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Geo-Tagged Photo



Proofs & Documents Attached (Tick mark the proofs attached) :

<input type="checkbox"/>	Notice / Brochure	<input type="checkbox"/>	Feedback Form
<input type="checkbox"/>	Attendance list	<input type="checkbox"/>	Feedback Analysis
<input type="checkbox"/>	Photos	<input type="checkbox"/>	Media News Details
<input type="checkbox"/>	Certificate	<input type="checkbox"/>	Any Other





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Prepared By		Checked By
Name & Dated Signature of Coordinator	Name & Dated Signature of Head/Committee In charge	Name & Dated Signature of IQAC Coordinator
Mr. Vivek S. Narnaware Mr. Chirag Kale	Mr. Vivek S. Narnaware Mr. Chirag Kale	Dr. Kishor Rambhad

Date of Activity: 3rd February -7th February 2025

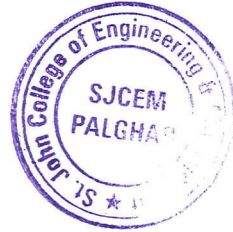
Date of Report Submission: 17th February 2025

Reason for delay if any:


Approved By

Principal Signature

Date:

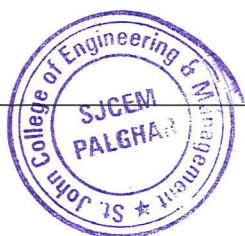


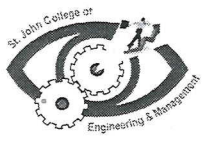
Principal

St. John College of Engg. & Mgmt
Palghar (E), Palghar

Activity Proposal Form

Particulars	Details
Name of the Activity	ISTE Approved One Week Short TERM Training Program on "Advances in Manufacturing in the Context of Industry 4.0"
Type of Activity (Workshop/Seminar/etc.)	STTP
Objectives	<ul style="list-style-type: none"> ▪ To explore and understand the integration of advanced technologies like Artificial Intelligence (AI), Cyber-Physical Systems (CPS), and Digital Twins within manufacturing processes, emphasizing their role in achieving the objectives of Industry 4.0. ▪ To provide insights into the application and benefits of emerging trends such as Additive Manufacturing (3D Printing) and sustainable practices, highlighting their significance in driving innovation and fostering eco-friendly manufacturing solutions. ▪ To discuss the challenges and opportunities in adopting Industry 4.0 technologies, focusing on strategies for overcoming barriers and leveraging advancements to enhance productivity, efficiency, and sustainability in manufacturing systems.
Target Audience	SJCEM Faculty Members, Non –SJCEM Faculty, Industry Persons, UG/PG/PhD Student
Proposed Date and Time	3 rd February to 7 th February 2025 from 6.00 pm to 8.30 pm.
Venue	SJCEM Palghar
Estimated Budget and Funding Source as per Form No. AF 8	
Required Approvals or Permissions	Approved by Principal
Name of Resource Person with Affiliation	<ol style="list-style-type: none"> 1. Dr. Kamal Shah, Principal, SJCEM Palghar 2. Dr. Jagadish, Assistant Professor Indian Statistical Institute Bangalore 3. Dr. Srinath Gudur, Assistant Professor, VJTI Mumbai 4. Dr. Rakesh Himte, Principal, VCET Vasai 5. Dr. Santosh Rane, Associate Professor, SPCE Mumbai





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Prepared By	Checked By
Name & Dated Signature of Coordinator	Name & Dated Signature of Head/Committee In charge
Mr. Vivek S. Narnaware Mr. Chirag Kale	Mr. Vivek S. Narnaware Mr. Chirag Kale

Approved By

Principal Signature

Date:



Principal
St. John College of Engg. & Mgmt
Palghar (E), Palghar

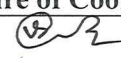

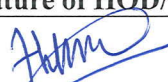
AF 8

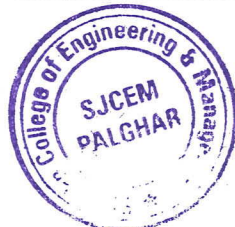
Budget Approval Form

Activity /Event Name: ISTE Approved one week online STTP on "Advances in Manufacturing in the Context of Industry 4.0"

Estimated Expense Head (A)		
Particulars	Amount (₹)	Remarks
ISTE STTP Registration Approval fee	1180/-	
Resource Person	8000/-	(Rs 2000/- per session given to 4 experts)
ISTE membership certificate fee	4602/-	To be paid to ISTE
Resource Material	NA	
Venue Charges	NA	Online STTP
Hospitality (Food/Refreshments)	NA	Online STTP
Transportation	NA	Online STTP
Miscellaneous	NA	Online STTP
Digital marketing	NA	Use of email ,social media platforms
Publisher Charges	NA	
Total Estimated Expenses	13782/-	
Estimated Income Head (B)		
Particulars	Amount (₹)	Remarks
Registration fee	26000/-	Registration fee from 130 participants
Sponsorship	NA	
Total Estimated Income	26000/-	
Estimated Revenue generation		
Particulars	Amount (₹)	Remarks
Total Estimated Expenses (A)	13782/-	
Total Estimated Income (B)	26000/-	
Estimated Revenue generation (B-A)	12218/-	
Estimated Institute Share		
Institute Share		

Note: As per the requirement no. of rows can be modified

Prepared By	Checked By
Name & Dated Signature of Coordinator	Name & Dated Signature of HOD/Committee In-charge
Mr. Vivek S. Narnaware  Mr. Chirag Kale 	Dr. Kishor Rambhad 



Approved By
Principal Signature

Principal
St. John College of Engg. & Mgmt
Palghar (E), Palghar

Date: 12/02/2025

ABOUT DEPARTMENT

The Mechanical Engineering Department at St. John College of Engineering and Management is dedicated to fostering technical excellence and innovation. It offers a comprehensive curriculum designed to equip students with core mechanical engineering skills and hands-on experience in cutting-edge technologies. The department is supported by state-of-the-art laboratories and experienced faculty members committed to student development. It emphasizes research, industry collaboration, and practical exposure through internships, workshops, and industrial visits. Students are encouraged to participate in technical competitions and projects, fostering creativity and problem-solving abilities. The department aims to produce globally competent engineers ready to address real-world challenges.

COURSE OBJECTIVES

- To explore and understand the integration of advanced technologies like Artificial Intelligence (AI), Cyber-Physical Systems (CPS), and Digital Twins within manufacturing processes, emphasizing their role in achieving the objectives of Industry 4.0.
- To provide insights into the application and benefits of emerging trends such as Additive Manufacturing (3D Printing) and sustainable practices, highlighting their significance in driving innovation and fostering eco-friendly manufacturing solutions.
- To discuss the challenges and opportunities in adopting Industry 4.0 technologies, focusing on strategies for overcoming barriers and leveraging advancements to enhance productivity, efficiency, and sustainability in manufacturing systems.

COURSE OUTCOME

- Demonstrate a comprehensive understanding of Industry 4.0 technologies such as Artificial Intelligence (AI), Cyber-Physical Systems (CPS), and Digital Twins, and their applications in modern manufacturing processes.
- Analyze the role of Additive Manufacturing (3D Printing) and sustainable practices in fostering innovation and achieving environmental goals within the manufacturing sector.
- Evaluate the challenges and opportunities associated with implementing Industry 4.0 technologies and propose effective strategies to enhance productivity, efficiency, and sustainability in manufacturing systems.

COURSE CONTENT/TENTATIVE SCHEDULE

There is a Registration fee of Rs. 200 /- for the STTP.

Day 1 (03/02/2025) : Inaugural Session (6.00 p.m. to 6.30 p.m.) | AI for Industry 4.0 by Dr. Kamal Shah, Principal, SJCEM (6.30 p.m. to 8.30 p.m.)

Day 2 (04/02/2025) : Sustainability and Green Manufacturing in Industry 4.0 by Dr. Jagadish, Assistant Professor Indian Statistical Institute Bangalore (6.30 p.m. to 8.30 p.m.)

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Day 5 (07/02/2025) : Cyber-Physical Systems (CPS) and Digital Twins in Manufacturing by Dr. Santosh Rane, Associate Professor, SPCE (8.00 p.m. to 10.00 p.m.)

Note: The Certificates shall be issued to those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test conducted at the end of the online STTP.

PATRONS

Mr. Albert W. D'Souza Chairman
Mrs. Elvina D'Souza Secretary
Mrs. Elaine D'Souza Buthello Treasurer
Mr. Aldridge D'Souza Member

CONVENER

Dr. Kamal Shah Principal
Dr. Kishor Rambhad HOD, Mechanical

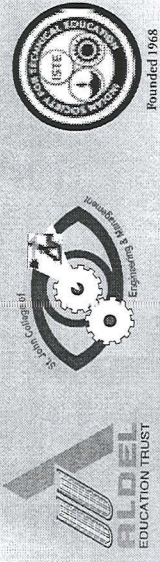
CO-CONVENER

PROGRAM COMMITTEE

Mr. Vivek Narnaware Assistant Professor
Mr. Chirag Kale Assistant Professor

ORGANISING COMMITTEE

Dr. Sandipan Pawar Professor & COE
Mrs. Sangam Rane Assistant Professor
Mr. Kiran Beldar Assistant Professor
Mr. Uday Prajapati Assistant Professor
Mr. Sagor Patil Assistant Professor



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organizes

INDIAN SOCIETY FOR TECHNICAL EDUCATION

ISTE Approved

Online

One Week Short Term Training Program (STTP)

"Advances in Manufacturing in the context of Industry 4.0"

03rd - 07th
February 2025

Department of Mechanical Engineering
Palghar(East), Maharashtra -401404

COORDINATOR

Mr. Vivek Narnaware

vivekn@sjcem.edu.in
9923977788

CO-COORDINATOR

Mr. Chirag Kale

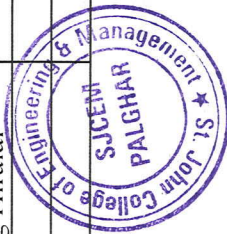
chiragk@sjcem.edu.in
9970805852

St. John Technical and Educational Campus,
Vevoor, Manor Road, Palghar (E) - 401404

Email - aet.office@sjcem.edu.in | Ph No. - 02525-297275 | Mob. No. - 7387203232

Attendance Sheet for ISTE approved STTP on "Advances in Manufacturing in the context of Industry 4.0"

S.N.	Name of the participant	Designation	Day 1	Day 2	Day 3	Day 4	Day 5	% Attendance
1	Mr. Ashish Ravindra Suware	Assistant professor	P	P	P	P	P	100
2	Mr. Avinash Dattatray Chavan	Assistant professor	P	P	P	P	P	100
3	Mr. Sangam Subhash Rane	Assistant professor	P	P	A	P	P	80
4	Mr. Rakesh Adhikrao Shinde	Assistant professor	P	P	A	P	P	80
5	Mr. Mahindrakar Venkatesh Nagnathrao	Assistant professor	P	P	P	A	P	80
6	Mr. Gutte Sandeep Angadrao	Assistant professor	P	P	P	P	P	100
7	Mr. Kamlesh Adinath Bachkar	Assistant professor	P	P	P	A	P	80
8	Mr. Dinesh Nayan Pansande	Assistant professor	P	P	P	P	P	100
9	Mr. Dattatray Laxman Bankar	Assistant professor	P	P	P	P	A	80
10	Mr. Deshpande Pravin Madhav	Assistant professor	P	A	P	P	P	80
11	Dr. Sandipan Shankar Pawar	Professor	P	P	P	P	P	100
12	Mr. Dilip V. Kunte	Assistant professor	P	P	P	P	P	100
13	Dr. Gajanan G. Waghmare	Associate Professor	P	P	P	P	P	100
14	Dr. Sachin Nagorao Waghmare	Professor	P	P	P	P	A	80
15	Dr. Mukesh Shyamkant Desai	Associate Professor	P	P	P	P	P	100
16	Mr. Quazi Taquiuddin Z	Assistant professor	P	P	P	A	P	80
17	Mr. Vidyasheel S Bagade	Assistant professor	P	P	P	P	P	100
18	Mr. Chirag Kedar Kale	Assistant professor	P	P	P	P	P	100
19	Dr. Sunil R Pansare	Associate Professor	P	P	P	P	P	100
20	Mr. Rahul Damodhar Rakhade	Assistant professor	P	P	A	P	P	80
21	Mr. Swapnil M Kondawar	Assistant professor	P	P	P	P	P	100
22	Mr. Ajit V.Dumbre	Assistant professor	P	A	P	P	P	80
23	Mr. Vivek Sadashiv Narnaware	Assistant professor	P	P	P	P	P	100
24	Dr.Mitali Sandeep Mhatre	Associate Professor	P	P	P	P	P	100
25	Mr. Mukund Padmakar Kavekar	Assistant professor	A	P	P	P	P	80
26	Mr. Dipak Janardan Choudhari	Assistant professor	P	P	P	P	P	100
27	Mr. Parkale Pandurang Hiralal	Assistant professor	P	P	P	P	P	100
28	Dr. Venkataraj K P	Associate Professor	P	P	P	A	P	80
29	Mr. Rajesh S Godse	Assistant professor	P	P	P	P	P	100



Attendance Sheet for ISTE approved STTP on "Advances in Manufacturing in the context of Industry 4.0"

S.N.	Name of the participant	Designation	Day 1	Day 2	Day 3	Day 4	Day 5	% Attendance
30	Mr. Shelar Shivaji Mahadeo	Assistant professor	P	P	P	P	P	100
31	Dr. Manisha Makwana	Assistant professor	P	P	P	P	P	100
32	Dr. Basavaraj Siddappa Talikoti	Assistant professor	P	P	P	P	A	80
33	Dr. Yogesh Uma Uttam Sathe	Head of Workshop Department	P	P	P	P	P	100
34	Prof. Madhukar B Sorte	Associate Professor	P	A	P	P	P	80
35	Dr. Sachin Ramchandra Jambhale	Assistant professor	P	P	P	P	P	100
36	Mr. Ganesghir Dashrathgir Gosavi	Assistant professor	P	P	P	P	P	100
37	Dr. Sanjay Chikalthankar	Associate Professor	P	P	P	P	P	100
38	Mrs. Minakshi Shinder	Assistant professor	A	P	P	P	P	80
39	Mr. Aniket Mahendra Akhade	Assistant professor	P	P	P	P	P	100

Prepared by:




[Mr. Vivek S. Narnaware / Mr. Chirag Kale]

[Assistant Professor and Coordinator/ Co-coordinator of STTP]

[Department of Mechanical Engineering, SJCEM Palghar]



Mechanical Engineer



What I think I do



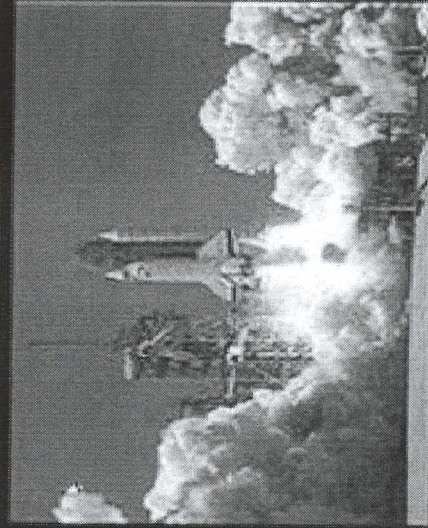
What my mother thinks I do



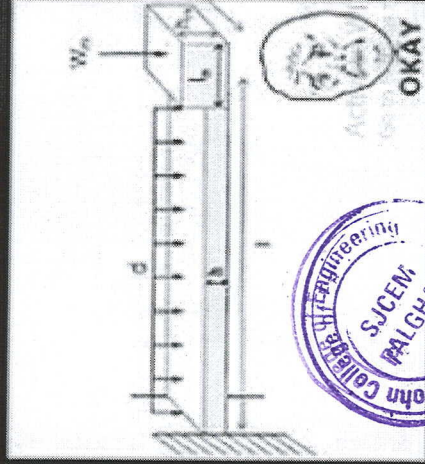
What society thinks I do



What I really do



What I think I do



What I really do

B
Basavraj Talikotti

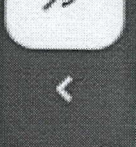
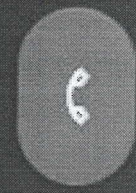
V
Vivek Narnaware

U
Uday S. Prajapati

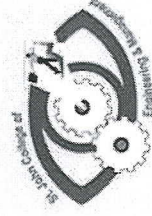
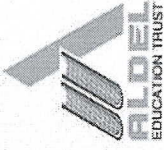
P
Principal S...

M
Manisha d...

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Presenting in the con...



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St. John Technical and Educational Campus, Vevoor, Manor Road, Palghar (E) - 401404

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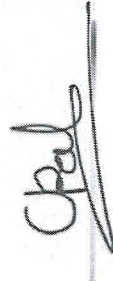
DEPARTMENT OF MECHANICAL ENGINEERING

Certificate

this is to certify that

Dr. Manisha Makwana


has successfully completed the ISTE approved online STTP
(ISTE/Proceedings/Online STTP/FDP-SF-MAH-151/2024-2025) on "Advances in Manufacturing
in the Context of Industry 4.0" from 03rd to 07th February 2025.



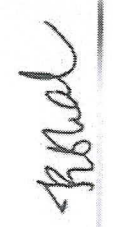
Mr. Chirag Kale
Co-coordinator



Mr. Vivek Narnaware
Coordinator



Dr. Kishor Rambhad
HOD, Mechanical



Dr. Kamal Shah
Principal

