National Institute of Technology (NIT), Tiruchirappalli

Department of Production Engineering

Announces a Self-Sponsored Short-Term Course (STC) on

Additive Manufacturing and Industry 4.0

December 2-6, 2024

Organised by

Department of Production Engineering
National Institute of Technology
Tiruchirappalli – 620 015.
Tamil Nadu, India

Course Coordinator

Dr. Vineet Kumar Yadav

Course Co-Coordinators

Dr. P. Senthil and Dr. S. Vinodh
Department of Production Engineering
National Institute of Technology
Tiruchirappalli – 620 015
Tamil Nadu, India

SCOPE OF THE COURSE

This Short-Term Course (STC) focuses on equipping participants with advanced knowledge on Additive Manufacturing (AM) and its pivotal role in Industry 4.0 and smart manufacturing. As global industries move towards more automated and intelligent systems, the integration of AM with digital technologies like IoT, cyber-physical systems, and Big Data is transforming manufacturing landscape. The course will explore the impact of AM on production processes, design methodologies, and its application in sectors such as aerospace, automotive, and healthcare. It will also address the challenges and opportunities associated with adopting AM technologies. Through theoretical knowledge and hands-on activities, participants will gain practical insights into enhancing production efficiency and innovation by harnessing the synergy between AM and Industry 4.0 in smart manufacturing environments.

COURSE CONTENTS

- Overview on Additive Manufacturing (AM)
- Polymer based and Metal based Additive Manufacturing Technologies
- File formats of AM
- Design for Additive Manufacturing (DfAM)
- Topology Optimization and Generative Design
- Industry 4.0 Technologies
- AM and Industry 4.0 Integration
- Emerging Trends and Challenges in AM
- Case Studies and Expert Insights

COURSE FACULTY

Lectures will be delivered by distinguished faculty from institutions such as IITs and NITs, along with experienced professionals from leading industries.

ELIGIBILITY

Faculty Members from technical institutions approved by AICTE, Ph.D. Research Scholars and PG students are eligible. Participants from industry are also eligible to attend the programme.

REGISTRATION FEE

Participants are requested to initially fill their details in Google form link:
https://forms.gle/kGtxG7TWiYk4mEDo9

Upon confirmation by the Coordinator, Participants are requested to make payment:

Post Graduate students	**Rs. 1250***
Ph.D. research scholars	**Rs. 1500***
Faculty members and Industrial participants	**Rs. 2000***

*The registration fee is inclusive of 18% GST
Registration fee to be paid through State Bank collect (State Bank of India).
Mode of Payment: Registration fee can be paid through State Bank of India **i-collect** using the link: https://www.onlinesbi.sbi/sbicollect/

Steps to be followed for online payment:

Educational Institutions > Filter by state: "Tamil Nadu" > Search "Conference and workshop NIT Trichy" > Payment Category "**PROD 2024 - Additive Manufacturing and Industry4.0**"

Further details regarding registration will be mailed to the participants later from the Coordinator Office.
Participants are requested to upload the proof of payment after making online payment on https://forms.gle/z8kUt9wJD3DsrN9k8 or send to the Coordinator email ID: vineet@nitt.edu.

REGISTRATION FORM

Short Term Course on

Additive Manufacturing and Industry 4.0

December 2-6, 2024

1. Name:

2. Gender (M/F):

3. Qualification:

4. Designation:

5. Department:

6. Organization:

7. Experience:

8. Mailing:
   Address

   Phone:
   Email:

9. Details of Registration Fee Payment
Amount: :
Transaction Ref No.:
Date :
Bank name & Place:
Include Proof of transaction

Signature of the Applicant with Date

DECLARATION BY THE APPLICANT

The above-mentioned information is true to the best of my knowledge and belief. I agree to abide by the rules and regulations governing the Short-Term Course. I shall attend the course for the entire duration.

Place:
Date: *Signature of Applicant*

IMPORTANT DATES (TENTATIVE)

Last date for receiving details in Google Link form:	**25.11.2024**
Intimation from the Coordinator office:	**27.11.2024**
Last date for receipt of proof of payment:	**1.12.2024**
Intimation of final selection (by email):	**1.12.2024**

ADDRESS FOR CORRESPONDENCE

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ABOUT THE INSTITUTE

National Institute of Technology, Tiruchirappalli (NIT Trichy), is recognized as one of India's premier engineering institutions, having been established in 1964. Renowned for its academic excellence and state-of-the-art infrastructure, NIT Trichy is committed to advancing cutting-edge research across various engineering, science, and management disciplines. Consistently ranked among the top engineering colleges in the nation, it offers a comprehensive array of undergraduate, postgraduate, and doctoral programs designed to cultivate innovative thinkers capable of addressing complex industrial challenges. Strategically located in the vibrant heart of Tamil Nadu, NIT Trichy fosters an intellectually stimulating environment that encourages innovation and interdisciplinary collaboration. This focus on research creates a dynamic ecosystem where students and faculty engage with real-world problems and cutting-edge technologies, enhancing both educational experiences and professional development.

ABOUT THE DEPARTMENT

Department of Production Engineering at NIT Trichy, established in 1983, is a leading center for academic excellence and research in the fields of manufacturing and industrial engineering. Offering B.Tech, M.Tech, and Ph.D. programs, the department emphasizes modern manufacturing systems, production technologies, and engineering management. Its core areas of expertise include Additive Manufacturing, Sustainable Manufacturing, Robotics and Automation, Industry 4.0, Advanced Materials and Processing, and Operations Research and Supply Chain Management. The Department is equipped with advanced laboratories such as CNC Machining Lab and Additive Manufacturing Lab, facilitating hands-on learning and high-quality research. With a robust emphasis on research, innovation, and industry collaboration, the faculty members of the department have garnered national and international recognition for their contributions to Manufacturing Technology and Industrial Engineering.