



Short Term Course on

ADDITIVE AND SMART MANUFACTURING

September 7-11, 2020

Organised by

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

Course Coordinators

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

Mode: Online Video Conferencing
(Webex Meetings/Microsoft Teams)

SCOPE OF THE COURSE

Manufacturing firms have been progressing towards dealing with challenges in digital and smart era. Additive Manufacturing facilitate prototyping, tooling and manufacture of near net shape parts. Additive Manufacturing is a core technology supporting Industry 4.0. As manufacturing systems are becoming smarter, Additive Manufacturing and Industry 4.0 contribute a key role in enhancing smarter aspects. Cyber Physical Systems forms the backbone for smart manufacturing which enables digital revolution. Practical perspectives and industrial applications in automotive, electronics and defense domains will be highlighted. Challenges in adopting the technologies and research issues in Additive and Smart systems will be deliberated during the conduct of the course.

COURSE CONTENTS

- Popular Rapid Prototyping technologies
- Rapid Tooling processes
- Additive Manufacturing for polymer and metal parts
- File formats for Additive Manufacturing
- Design for Additive Manufacturing
- Sustainability issues in Additive Manufacturing
- Rapid Product development
- Concepts of Industry 4.0
- Internet of Things in Manufacturing
- Cyber Physical Systems
- Smart Factory
- Software modules in Additive Manufacturing
- Research centres in Additive and Smart Manufacturing

COURSE FACULTY

The course faculty include Experts from reputed institutions, industries and R&D organizations.

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://docs.google.com/forms/d/e/1FAIpQLScT50akQipUevSavpUs9noGNncPV3bfnZBxjGtaOAGDGAdDMg/viewform>

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

Ph.D. research scholars and Post Graduate students: Rs 1000/-*

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).

Further details regarding registration will be mailed to the participants later from the Coordinator Office.

Participants are requested to send the proof of payment after making online payment with the filled in registration form to the Coordinator email ID: vinodh@nitt.edu.

REGISTRATION FORM

Short Term Course on **ADDITIVE AND SMART MANUFACTURING**

September 7-11, 2020

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

Last date for receiving details in Google Link form: **25.8.2020**

Intimation from the Coordinator office **27.8.2020**

Last date for receipt of proof of payment: **2.9.2020**

Intimation of final selection (By Email) : **4.9.2020**

Participants are requested to attend the course for the entire duration. Details of Course link and schedule will be sent to the registered participants through email. Electronic Certificates will be mailed to the registered participants upon satisfactory completion of the course.

ADDRESS FOR CORRESPONDENCE

Dr.S.Vinodh

Coordinator,

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

Mobile : 9952709119

Email : vinodh@nitt.edu

ABOUT THE INSTITUTE

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, situated in the heart of Tamil Nadu on the banks of river Cauvery, was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to catering to the needs of man-power in technology for the country. The college has been conferred with autonomy in financial and administrative matters to achieve rapid development. Because of this rich experience, this institution was granted Deemed University Status with the approval of the UGC/AICTE and Govt. of India in the year 2003 and renamed as National Institute of Technology. National Institute of Technology Trichy is one of the 31 National Institutes of Technology established by the Government of India. The institution offers Under Graduate Courses in ten branches and Post Graduate Courses in twenty-one disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. in all the departments.

ABOUT THE DEPARTMENT

The Department of Production Engineering is one of the best in the country. Established in the year 1983, the department strives towards excellence in the fields of manufacturing and industrial engineering. The vision of the department is to become a centre of excellence for learning, research and model manufacturing. It was declared as the best department of the institute for the year 2006-07. The Department of Production Engineering offers B.Tech. (Production Engineering) M.Tech. (Manufacturing Technology, Industrial Engineering & Management), M.S. and Ph.D. programs. The highly experienced faculty of the department contributes to the vital role in academic research. Many research papers have been published in reputed national/international journals and conferences by the faculty. Government of India has recognized this Department as a Centre for Quality Improvement Programme in PG and Ph.D. courses.