



NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI.

ICSSR SPONSORED

TWO DAYS NATIONAL LEVEL SEMINAR

ON

# INDIA 2.0 - IMPLICATION OF INDUSTRY 4.0 TOOLS IN INDIAN MANUFACTURING SECTOR

21<sup>ST</sup> – 22<sup>ND</sup> OCTOBER 2022

Venue: Department of Management Studies, NIT Trichy



National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 Undergraduate and 28 Graduate Programmes in disciplines spanning Engineering, Science, Architecture and Management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. According to the Ministry of Human Resources Development, NIRF 2022, NIT Tiruchirappalli (NIT-T) has been ranked as the 1st NIT among all the NITs and 8th among all the engineering institutes in India. The Institute has signed MoUs with various Educational Institutions and Industries both in India and abroad as well with an aim to promote collaborative research and consultancy.

## THE INDUSTRY 4.0 REVOLUTION

Industry 4.0 largely develops a network where machines may connect with one another, called the Internet of Things (IoT) and with people, called the Internet of People (IoP).

Machines communicate with one another and with the manufacturers to establish a cyber-physical production system (CPPS). This enables enterprises to link the actual world into a virtual one and enable machines to collect live data, evaluate them, and even make decisions based on them.

Industry 4.0 is the 'smart' automation of industry using intelligent networks and networked technology. This transition is happening fast, altering how we create, process and prepare the items we sell in various sectors, particularly in industry and agriculture. Embracing these exciting new technologies and implementing industry 4.0 practices can future-proof your organisation with richer data for improved decision-making, quality assurance at every level, and through exposing chances for innovation.

## OBJECTIVES OF THE SEMINAR

- The objective of the seminar is to make people aware of the latest industry trends and help them to nurture their thought process of applying the technology to their business needs.
- The Industry 4.0 seminar consists of an interactive online experience for professionals and/or workplaces that are considering investing and/or engaging in new technologies to meet the business needs of tomorrow.
- This seminar is to find out how our industries can benefit from the 'smart' automation of industry through intelligent networks and connected technologies with the support for academic minds of NIT Trichy.

## CONTENT

- Introduction of Industry 4.0
  - Why is it required?
  - What needs to be changed?
  - Setting the tone
  - How others have done(use cases)
- A deeper understanding of Industry 4.0
  - Smart factories
  - Smart Farming
  - Machine Learning, AI & Big Data
  - Are you Ready(Self-Assessment)
- How Industry 4.0 impacted the change
  - Local Capabilities
  - Local Heros
  - Vendors that work
- Identify the challenges and provide solutions to achieve Industry 4.0
  - Understand the need
  - Data approches
  - Importance of Leadership
  - Building a team
  - Technical approches
- Implement the solutions aand acheive Industry 4.0
  - Apply the approaches
  - Test the solutions
  - Corrective Measures
  - Reimplement
  - Finalise the Outcome

## WHO SHOULD ATTEND THE SEMINAR

Industry people who make business decisions, Factory Floor/Operations Managers, Purchase and sales Department Managers, and HR Officials, Technology providers, Financial Partners, Researches, Academicians and Students.

## REGISTRATION DETAILS

Registration Link: <https://forms.gle/Dvp5gbc7GntkAPzNA>

Last date for registration : 15/10/2022

Confirmation by Participants: 16/10/2022

# PROGRAMME SCHEDULE

## **Day 1(21.10.2022):**

- ✓ Session 1 : **Challenges in Converting Industry 3.0 to 4.0**
- ✓ Session 2 : **Benefits of Industry 4.0**
- ✓ Session 3 : **Introduction to Machine Learning, AI & Big Data**

## **Day 2(22.10.2022):**

- ✓ Session 1 : **Industry 4.0 in the sustainable energy industry**
- ✓ Session 2 : **Achieving the Industry 4.0 solutions**
- ✓ Session 3 : **Creativity, Risk and Logical Reasoning**

### **PATRON**

Dr. G. Aghila  
Director,  
NIT Tiruchirappalli

### **SEMINAR CHAIRPERSON**

Dr. B. Senthil Arasu  
Professor  
Department of Management Studies  
NIT Tiruchirappalli

Dr. N. Kumaresan  
Professor  
Department of Electrical and Electronics  
Engineering, NIT Tiruchirappalli

### **ORGANIZING SECRETARY**

Dr. J. Kirubakaran  
Assistant Professor  
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### **CONTACT DETAILS**

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