

AICTE Sponsored
One Week Short Term Training
Programme (STTP)

On

“Innovations and Challenges in Industry 4.0 Automation and Smart Manufacturing”

(26/04/2021 to 01/05/2021)



REGISTRATION FORM

Name :-----

Designation : -----

Organization : -----

Mailing Address : -----

Mobile No. : -----

Email : -----

Declaration

The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations governing the programme. If selected I shall attend the residential STTP Programme for the entire duration.

Date:

Signature of the candidate

Sponsorship certificate

Dr./Mr./Ms.-----
is an employee/research scholar of our
College/University/Industry is permitted to attend the
residential STTP programme.

Place: Signature of Head of the organization
Date: with Seal

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PATRONS

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Dr.B.S.B.Reddy, Principal

PROGRAM CO-ORDINATOR

Dr.Ch.Srinivasa Rao, Professor,

Dept. of Mechanical Engineering

CO-COORDINATORS

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Mr. V. Nageswara Rao, Assoc. Professor

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Ms.Ch.Anusha, Asst. Professor

Mr.D.Sheshadwaj, Asst. Professor

Mr.G.Hareesh, Asst. Professor

**For clarifications please contact Dr.Ch.Srinivasa Rao,
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Organized By

DEPARTMENT OF MECHANICAL ENGINEERING



Kallam Haranadhareddy Institute of Technology

(Autonomous Institution)

**(Approved by AICTE, New Delhi & Permanently
Affiliated to JNTUK, Kakinada)**

**Accredited by NBA and NAAC with ‘A’ grade
NH-16, Chowdavaram, GUNTUR-522019**

E-mail: kaesguntur@gmail.com;

www.khitguntur.ac.in



ABOUT THE INSTITUTION

Kallam Haranadhareddy Institute of Technology (KHIT) was established by the Kallam Academy of Educational Society in the year 2010. The institute registered phenomenal growth and today it stands as a premier institution offering engineering education at UG and PG levels

KHIT has been accredited by NAAC with 'A' grade in 2017 and by NBA in 2018. KHIT has become an autonomous institution from the academic year 2020-21. The college has a rich tradition of soaring high, with academic excellence & overall personal growth of students.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was started with B.Tech. program in 2010 and M.Tech. (Thermal Engineering) in 2014. The B. Tech program is accredited by NBA in 2018.

The department has well-experienced faculty with the right mix of specializations and highly skilled and motivated technicians to provide quality education to the students. Well-established CAD/CAM laboratory possess 80 high-end computer systems and all with advanced modeling and analysis software. In addition to the conventional laboratories and research facilities, the department has a 3D printing laboratory, and recognized research center by JNTUK, Kakinada.

ABOUT THE PROGRAM

Revolutionary changes has come in the field of Industrial automation, manufacturing and Energy. The Fourth Industrial Revolution-commonly referred to as Industry 4.0-with smart manufacturing is currently on its forefront. Industry 4.0 involves the integration of advents in technologies and agents for improving the efficiency and responsiveness of a production system.

State-of-the-art technologies such as Internet of Things (IOT), cloud computing, big data analytics and artificial intelligence have stimulated the development of smart manufacturing.

Smart manufacturing is a fully integrated, collaborative manufacturing system that responds in real time to meet changing demands and conditions in the factory, in the supply network and customer needs.

Industry 4.0 is the fourth industrial revolution making to move towards smart manufacturing. Adopting Industry 4.0 for manufacturing requires both horizontal and vertical data integration across the business. Vertical data integration may include manufacturing, procurement, supply chain, design, product life cycle management, logistics, operations and quality. All integrates may include stream of flow of data. Horizontal data integration may include data integration with suppliers, customers and key partners.

Achieving integration requires upgrading network and processes. It also need solid data services and analytics to turn the information in general by a systems, sensors and machinery into actionable insights that can provide a return on investment. This makes implementing cyber security with best practices across the digital eco systems .Keeping in view of the impetus, the present training program aims to discuss the Innovations in Industry 4.0 and smart manufacturing and challenges faced while adopting the same

CONTENTS

- Industrial 4.0 automation, Collaborative robots, Robotics and manufacturing
- Smart Design and Manufacturing
- Advanced Material Processing
- Artificial Intelligence in Industry 4.0
- Internet of things, Inter-networking of physical devices, collection and exchange of data, Industrial internet
- Cyber Security, Realization of Industry 4.0 vision, Industrial network security.
- CNC Machining and Programming
- 3D printing Technologies
- Hands on practice on CNC Machining
- Hands on Practice on 3D printing

OBJECTIVES

The STTP aims to explore the technical aspects, contemporary applications and research opportunities in Industry 4.0 Automation with Internet of things and sensor network techniques for smart manufacturing. The participants get training on Industrial Automation techniques with IoT and smart manufacturing processes to start and pursue their research work

RESOURCE PERSONS

Resource persons from reputed organizations with expertise related to the topic would be delivering lectures, sharing their experiences and with hands-on practice on CNC machining and 3D printing processes.

ELIGIBILITY OF PARTICIPANTS

The Faculty members of the AICTE approved Institutions, Research Scholars, PG Scholars, participants from Industry and Faculty of host Institution as per AICTE norms are eligible to participate in the program.

The participants will be provided the program kit, free boarding, lodging, and T.A as per norms

REGISTRATION FEE: There is no registration fee for the program

REGISTRATION LINK AND QR CODE

<https://forms.gle/UZigUry7qmk3hc16>

Register in the link given above and upload the duly filled registration form, and Submit hardcopy at the time of participation



IMPORTANT DATES

Last date for Registration: 15-04-2021

Intimation of Acceptance: 17-04-2021