WHO CAN PARTICIPATE

This training program is specifically designed for industry personnel, scientists, postdoctoral fellow, faculty members and students of the institutes/universities/research labs who are keenly looking for additive manufacturing as a tool for a wide variety of applications

REGISTRATION

Name:_____

Designation:_____

Institute:_____

Address:_____

_____

_____

Email ID: _____

Contact No:_____

Undertaking:

I shall abide by rules and regulations and shall attend course. Failing which certificate may not be issued.

_____

Signature of Participant

CONTACTS

Prof. Santosh Kumar, Dr. Pawan Sharma & Dr. J. P. Misra
Department of Mechanical Engineering
Indian Institute of Technology (BHU), Varansai
Email ID:- santosh.kumar.mec@itbhu.ac.in;
pawan.mec@itbhu.ac.in;
jpmisra.mec@iitbhu.ac.in

ABOUT NM-ICPS

The National Mission on Cyber-Physical Systems (NM-ICPS) is identified as one such emerging field to have a significant impact on health care, urban transportation, water distribution, energy, urban air quality, manufacturing and governance. The activities envisioned under this Mission will give a impetus to Indian manufacturing via the invention of new products, services and the creation of skilled young human resource from technicians to, researchers and entrepreneurs. It will have modernisation and digitalisation of socio-technical systems and services.

ABOUT IDAPT

The Interdisciplinary Data Analytics and Predictive Technologies (IDAPT) has been regarded as one of the most prominent fields whose progress will add significant impact on various socio-economic issues. At IIT (BHU) five verticals 1)Telecommunications, 2) Power, 3)Road Transport and Highways, 4) Defence Research and Development, and 5) Health and Family Welfare have been identified under IDAPT. The endeavour shall catalyse the creation of skilled young engineers, researchers, technicians, and entrepreneurs, together with human resource at all levels, besides becoming a key contributor to realizing the vision of "Digital India", "Innovate in India", and "Make in India".

Defence Research & Development in IDAPT

Defence Research & Development in IDAPT aims at providing appropriate solutions in crucial areas of defence like (a) border surveillance and role of drones and radars for surveillance, (b) microwave techniques for imaging, (c) stealth technique based on advanced polymer materials, (d) 5G for defence communications, (f) power systems for defence, (g) explosive detection, (h) smart sensors for soldiers and (i) and biosensors for safety and readiness of soldiers etc. To fulfil these objectives, digital manufacturing techniques such as CNC machining plays a significant role. The program is an application-oriented program with an emphasis on the understanding of the technical aspects of CNC machining.

A Lecture Series on

Additive Manufacturing

Part I-Materials for Additive Manufacturing

A TECHNOLOGY INNOVATION HUB ON INTERDISCIPLINARY DATA ANALYTICS AND PREDICTIVE TECHNOLOGY (IDAPT)

Under

NATIONAL MISSION ON INTERDICIPLINARY CYBER PHYSICAL SYSTEM (NM-ICPS)

10th –14th October 2022

Coordinators:-
Prof. Santosh Kumar
Dr. Pawan Sharma
Dr. J. P. Misra

ABOUT INSTITUTE

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya, Bharat Ratna-the founder of the first residential university of modern India, the Banaras Hindu University. The three of the erstwhile engineering colleges of BHU, namely BENCO, MINMET and TECHNO, were merged to form the Institute of Technology (IT-BHU) in 1968 to provide an integrated educational base. The IT-BHU has been admitting students through the JEE conducted by the IIT's since 1972, and has been consistently ranked amongst the top few engineering institutions of the country. IT-BHU became IIT (BHU) in June 29, 2012 by an Act of Parliament. The Institute has maintained high academic standard since its inception. It has turned out luminary engineers and administrators who served the nation with great distinction.

ABOUT MECHANICAL DEPARTMENT

Welcome to the Department of Mechanical Engineering at Indian Institute of Technology (IIT BHU), where experienced faculty and highly motivated students - supported by a dedicated staff - experience a unique engineering education. The Department offers academic programmes at three levels leading to Bachelor of Technology (B.Tech.) in Mechanical Engineering, Master of Technology (M.Tech.) in Mechanical Engineering and Decision Science, and Doctor of Philosophy (Ph.D.) degrees. In addition, continuing education programmes in specialized areas are offered on a regular basis for industry professionals and academic staff from other colleges.

EMINENT SPEAKERS (Tentative)

Prof. Pulak M. Pandey (IIT Delhi, India)

Prof. P. K. Jain (IIITDM Jabalpur, India)

Prof. Santosh Kumar (IIT BHU, India)

Dr. Girish Verma (IIT Indore, India)

Dr. Varun Sharma (IIT Roorkee, India)

Dr. Pawan Sharma (IIT BHU, India)

Dr. J. P. Misra (IIT BHU, India)

COURSE CONTENTS:

The major topics to be covered in the short term course are:

- Introduction to Additive Manufacturing
- Polymers and Ceramics for Additive Manufacturing
- Metals, alloys and composites for Additive Manufacturing
- Powder Materials for Additive Manufacturing and their characterization
- Design of materials for Additive Manufacturing
- Smart Materials for 4D Printing
- Novel structural materials
- Case study on the use of powder materials for indirect Additive Manufacturing.
- Case study on ink preparation for extrusion-based 3D printing.
- Case study on filament preparation for fused deposition modelling technique.
- Case study on the use of Metal Powders for Metal 3D printing.

REGISTRATION DETAILS

Registration link:

https://forms.gle/nYj9BjCUGU3rm2YS9

Last Date of Registration: 05th October, 2022

Registration Fees:

This training program is specifically designed for industry personnel, scientists, postdoctoral fellow and faculty members of the institutes/universities/ research labs who are keenly looking for digital manufacturing as a tool for a wide variety of applications.

No registration fees will be charged for the program.

The selection will be on first come first basis.

Course Mode: Hybrid (Offline/Online)

In case of any difficulty you can contact us at

pawan.mec@itbhu.ac.in;

jpmisra.mec@iitbhu.ac.in