

WHO CAN PARTICIPATE

This workshop is specifically designed for UG/PG/PhD students, researchers, faculties and technical staffs from the branches of engineering/ Science who are interested in the freight logistics, urban planning, data science, and predictive technologies.

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

CONTACT

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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 an 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) Defense 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".

Defense Research & Development in IDAPT

Defense 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 defense communications, (f) power systems for defence, (g) explosive detection, (h) smart sensors for soldiers and (i) and bio-sensors for safety and readiness of soldiers etc. To achieve these goals, this program will give participants with a platform to learn about the past, present, and future of composites in defense applications.

Short Term Course on

Metal and Alloys for Defense Applications

**A TECHNOLOGY INNOVATION HUB
ON**

**INTERDISCIPLINARY DATA ANALYTICS
AND PREDICTIVE TECHNOLOGY
(IDAPT)**

**Under
NATIONAL MISSION ON INTERDISCIPLINARY
CYBER PHYSICAL SYSTEM (NM-ICPS)**



March 02-06, 2023

Coordinators

Dr. Nikhil Kumar

Dr. Sanjay Singh

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 SMST

Welcome to the School of Materials Science and Technology 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 integrated dual degree (IDD) in Material Science, Master of Technology (M.Tech.) in Material 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. R. Jayaganthan (IIT Madras)
Prof. S. K Pangrahi (IIT Madras India)
Prof. G M. Owolabi (Howard University USA)
Dr. Rajeev Rawat (UGC-DAE CSR, Indore)
Dr. Suresh (IIT, Jodhpur)
Dr. Sanjay Singh (IIT BHU, India)
Dr. Surya Dev Yadav (IIT BHU, India)
Dr. Nikhil Kumar (IIT BHU, India)
Dr. Pawan Sharma (IIT BHU, India)
Dr. Deepak K (IIT BHU, India)

COURSE CONTENTS (Tentative)

Emerging trends, which directly impact the dynamics of metal and alloys in the defense industry, include the adoption of nano-technology in ballistic protection materials and the growing focus on stealth technology for military aircraft. The future of the composite materials in the defense industry looks good with opportunities in military aircraft, naval systems, land vehicles, body armour, arms & ammunition, and military hard wall shelter. The major growth drivers for this market are the increasing use of lightweight and high-performance materials in programs and the growing need for lightweight metal and alloys in ballistic protection solutions. This STC will cover:

- Introduction, Background, and Classifications of Metal and alloys
- Emerging Metal and alloys
- Microstructure and Mechanical Property Correlation
- Alloys for Defense and Military Service
- Modelling & Simulation

REGISTRATION DETAILS

Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSewCUJPIbWK9pC1Gp55aNNivOeyJJtb_Exp-nZu1YTW7gzshw/viewform?usp=pp_url

Last Date of Registration: Feb 25, 2023

Registration Fees

For faculties, scientists and post-doctoral

Fellow: Rs. 2000/- (non-refundable)

Industry: 4000/- (non-refundable)

For UG and PG students: Rs. 500 (non-refundable)

NOTE: A GST of 18 % should be paid additional in each registration fee

Payment may be made by one of the following methods:

1. Demand draft in favour of I-DAPT-HUB FOUNDATION

Payable at SBI, IIT(BHU) Varanasi.

2. For online payment

Branch: SBI, IT(BHU), Varanasi

IFSC: SBIN0011445

Name: I-DAPT-HUB-FOUNDATION

Account No: 40298890505

Course Mode:

Both online and offline

In case of any difficulty you can contact us at

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ssingh.mst@itbhu.ac.in