

WHO CAN PARTICIPATE

This short-term course is specifically designed for UG/PG/PhD students, researchers, faculties, and technical staff from the branches of engineering/Science who are interested in the field of Data Analytics and its use in Artificial Intelligence, Large Language Models, Vision Transformers, design of energy efficient models and reducing carbon footprints.

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 I-DAPT

The Interdisciplinary Data Analytics and Predictive Technologies (I-DAPT) has been regarded as one of the most prominent fields whose progress will add significant impact on various socio-economic issues. At IIT (BHU) the verticals 1) Telecommunications, 2) Power, 3) Road Transport and Highways, 4) Defense Research and Development, 5) Health and Family Welfare and 6) Other Areas such as Energy, Environment and Agri-Tech have been identified under IDAPT. The endeavour shall catalyze 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".

Telecommunications Research & Development in IDAPT

Power and Energy in IDAPT aims at using Data Analytics and Predictive Technologies to develop Intelligent and Sustainable Infrastructures. It supports in the area of Sustainable AI such as a) Design of Energy Efficient Application or AI models, b) Use of Solar power in Edge Computing Devices, c) Design of frameworks to achieve Net-Zero carbon mission of India, d) Integration of the LLM in decision support systems, To achieve these goals, this program will give participants with a platform to learn about the emerging technologies in Data Analytics for Sustainable AI.

Short Term Course on

Emerging Trends of Data Analytics in Sustainable AI

A TECHNOLOGY INNOVATION HUB

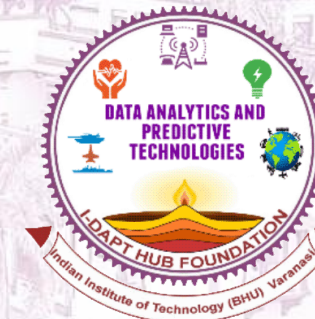
ON

INTERDISCIPLINARY DATA ANALYTICS AND PREDICTIVE TECHNOLOGY

(IDAPT)

Under

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



<as per the dates of the project acceptance>, 2026

Coordinators

Dr. Devashree Tripathy

Dr. Suresh Raikwar

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.

Thapar Institute of Engineering and Technology was founded in 1956 with a campus spread across sprawling 250 acres, it is one of India's oldest and finest educational institutions. Rated amongst the top ranked innovation-driven private universities and technical institutes in the country, Thapar Institute of Engineering & Technology has been accredited with an 'A++' grade by the National Assessment and Accreditation Council (NAAC)

ABOUT School of Electrical and Computer Sciences (IIT Bhubaneshwar) and Department of CSE (TIET)

School of Electrical and Computer Sciences (IIT Bhubaneshwar) and Department of CSE (TIET), where experienced faculty and highly motivated students supported by adedicated staff experience a unique engineering environment. The Department offers Bachelor, Master, and Doctoral programs in Electrical and Computer Science Engineering. In addition, continuing education programmers in specialized areas are offered on a regular basis for industry professionals and academic staff.

EMINENT SPEAKERS

Dr. Ajay Shankar (Manager, KPMG)
Prof. Maninder Singh (TIET)
Dr. Aryabartta Sahu (IIT Guwahati)
Dr. Dr. Rajesh Kedia (IIIT Hyderabad)
Dr. Dr. Kalyan (IIT Ropar)
Dr. Soumendu Chakraborty (IIIT Lucknow)

COURSE CONTENTS (Tentative)

The integration of Data Analytics in Power-Energy System can be used to design and develop the Sustainable Artificial Intelligent solutions, and leads to Sustainable AI. It can be used to develop intelligent, environmentally sustainable infrastructure. Recent advancement in Vision Transformers and Large Language Models achieved accuracy in AI. However, they consume too much power and produce huge amount of carbon emission. This STC will provide exposure to technologies which can reduce the carbon emission while preserving the same accuracy. This STC will cover:

- Fundamental models of AI and Energy consumption,
- Sustainable Computing for Net-Zero Carbon mission
- Use Data Analytics and Predictive Technologies in Fundamental AI
- Deep Learning and relation of the Loss function with data distribution
- Distribution of the carbon footprint in training an AI model
- Neural architectural search (NAS) and its relation with carbon footprint
- Utilization of LLM in NAS for reduced carbon emission

REGISTRATION DETAILS

Registration Link:

<https://www.idapthub.org/applications/stc>

Last Date of Registration: _____

Registration Fees (Including 18% GST)

Participation	Offline
For UG, PG and PhD students:	Rs. 750
For faculties, scientists and Post-doctoral Fellow	Rs. 2500
Industry Participants	Rs. 3500

NOTE Registration fees will be Non-Refundable

Payment Mode:

Branch: SBI, IT(BHU), Varanasi
IFSC: SBIN0011445
Name: I-DAPT-HUB-FOUNDATION
Account No: 40298890505

Course Mode: online

In case of any difficulty, you can contact us at 7771013767; Email: devashreetripathy@iitbbs.ac.in