Guidelines for Short Term Courses (STCs)

Guidelines for Short-Term Courses at I-DAPT- Hub Foundation, IIT (BHU), Varanasi

For promoting skill development in the application areas of Data Analytics and Predictive Technologies (DAPT), the faculty members of IIT (BHU) and other institutions can submit proposals for financial support/seed money to organize Short Term Course (STC) / Short Term Training Program (STTP)/ Certificate Course, etc., in the area of Data Analytics and Predictive Technologies (DAPT). The STC based on the theme of **DAPT, should preferably be** related to the following thrust areas: Telecommunications, Power and Energy, Road Transport & Highways, Defence R&D, Health & Family Welfare, Energy and Environment and Agri-tech.

The guidelines for conducting the course are as follows;

- The minimum number of participants in the course should mandatorily be 25.
- The financial support for conducting the online course is 1.50 Lakhs + 10% overhead.
- The financial support for conducting an offline course is 3.00 Lakhs + 10% overhead.
- The hybrid course will be considered offline if the number of participants in offline mode exceeds 25.
- Registration for the course should be completed through the I-DAPT website.
- The I-DAPT will retain 50% registration fees and return the rest to the organizer/faculty. I-DAPT Hub Foundation is using the following SBI account for collecting STC registration fees:

  Beneficiary Name: I-DAPT-HUB FOUNDATION
  Account Number: 40298890505
  Nature of Account: Current Account
  IFSC Code: SBIN0011445
  Bank Branch Name: SBI Bank, BHU, Varanasi

- The registration fees will be decided by the organisers, but should not be lower than the minimum fees guideline of I-DAPT as mentioned below.

Minimum Registration fees guideline of I-DAPT-funded STC (Including GST)

Participation	**Online (including GST)**	**Offline (including GST)**
For UG, PG and PhD students	Rs. 750	Rs. 1,500
Staff (Technical, Administrative and Others)	Rs. 1,500	Rs. 3,000
For faculties, scientists and Post-doctoral Fellow	Rs. 2,000	Rs. 4,000
Industry Participants	Rs. 3,500	Rs. 7,000
International Participants	USD 100	NA
** The Registration Fee & GST is non-refundable to participants.		

- After the last date of registration for STC, the registration option on the I-DAPT website will no longer be available to the participants.
- It is mandatory to upload a Brochure and a scanned copy of the filled application form while applying for STC. The brochure will be uploaded to the I-DAPT website for publicity and participant registration.
- After submitting the filled application and Brochure form, no details/revision will be allowed without I-DAPT hub approval.
- The STC applicant will provide one digital pamphlet and 100-150 words of content on the proposed STC for online marketing purposes.
- International participation will be allowed only in online mode.
- Overhead charges of the institute will be applicable if STC grants are transferred to the Institute account.
- A sanctioned amount will be released after registration of a minimum of 25 participants. I-DAPT will help faculty members to popularise the event; however, it is the responsibility of the organisers to ensure a minimum number of participants.
- Fifty per cent (50%) of the registration amount will be released after the successful completion of the event and the submission of the unaudited statement of expenditure.
- It is the sole responsibility of the organisers to ensure the standard of the event.
- The minimum duration of the course should be one week. One-week events should have a minimum of 20 hours (5-7 days) of lectures/hands-on lectures/ laboratory sessions.
- The I-DAPT should be duly acknowledged in all media coverage.
- I-DAPT should be duly acknowledged in banners, posters, backdrops, and other materials, and photographs should be sent to I-DAPT.
- The STC coordinator/faculty (Outside IIT-BHU) may have to sign an MoU with I-DAPT regarding abiding by the terms and conditions, such as submitting UC, etc in a timely manner to I-DAPT.
- Faculty members with research projects funded by I-DAPT are encouraged to organise at least one STC during the project period.
- A joint certificate (issued by I-DAPT and the organising Institute) will be provided to candidates who successfully complete the STC.
- The event convener may be entitled to a maximum honorarium of 40,000/- from the course's savings.
- STC course feedback from the participants must be submitted to I-DAPT-Hub.
- The above guidelines for short-term events will be periodically reviewed.

FORMAT FOR APPLYING FOR FINANCIAL SUPPORT TO CONDUCT STC

Title of the STC Course	
Name(s) and Designation of STC Coordinator(s)	
Name of other Faculty Members Associated with the STC	
How the Proposed STC is connected with the DAPT theme and its sub areas	
Proposed Duration and Dates of STC	***Also do mention the last date for acceptance of registrations.*
Objectives of the Course	*** Short 100-150 word content on proposed STC for online marketing of STC*
Course Content and Detailed session-wise schedule	
Tentative list of Keynote speakers	
Target audience and expected number of online and offline participants)	*** Please do mention the maximum number of Offline participants (as IDAPT website will not accept offline registration once this maximum no. is reached)*
Mode of Delivery of STC	**Online mode / Offline mode /Hybrid mode
Maximum no of seats in offline mode (Maximum number of participants that can be accommodated in offline mode).	
Other Sources of Funding	
Detailed Budget Estimate	
Expected Outcome	
Additional Information pertaining to STC	

Registration fees (Minimum) this STC (Including GST)

Participation	**Online (including GST)**	**Offline (including GST)**
For UG, PG and PhD students	Rs. 750	Rs. 1500/-
Staff (Technical, Administrative and Others)	Rs. 1500/-	Rs. 3000/-
For faculties, scientists and Post-doctoral Fellow	Rs. 2000/-	Rs. 4000/-
Industry Participants	Rs. 3500/-	Rs. 7000/-
International Participants	100 USD	
** The Registration Fee & GST is non-refundable to participants.		

The above information is correct to the best of my knowledge.

Signature and Seal of Course Coordinator(s)

Endorsement by

Signature and Seal of the Head of the Department

Signature and Seal of the Head of the Institute

Information regarding HRD Activities (workshop/Conference /seminar/symposium)

(To be submitted after conducting the STC program)

1. Title of event
2. Name of the Coordinators
3. Name of Organising Department
4. Name of other Collaborative Organisations (if Joint event)
5. National/International event
6. Venue of the event
7. Date of event
8. Total Amount Sanctioned
9. Total Expenditure
10. Brief about the event (50 words)
11. Total No. of Participants
12. If any specific point regarding Women or SC/ST benefits
13. Outcomes of the event
14. 5 Photos of the conducted STC and 5-minute Video clips of the inaugural session

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 quantum communication systems, wireless communication systems, machine learning, artificial intelligence, quantum communication and information theory, quantum computing, 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

Dr. *******and Dr. *******

Assistant Professor

Department of ***** Engineering**

Indian Institute of Technology (BHU), Varanasi

Email:*.***@itbhu.ac.in, ***.***@itbhu.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 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 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".

Telecommunications Research & Development in I-DAPT

Telecommunications Research & Development in IDAPT aims at providing technology development support in the area of communication systems such as a) physical layer design for future communication system, b) Internet of things, c) quantum communication, d) machine based communication system design, e) THz communication system design, f) Molecular communication, etc. To achieve these goals, this program will give participants with a platform to learn about the next generation communication technologies.

Short Term Course on

Title of the proposed STC

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

Under

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

Month DD-DD, Year

Coordinators

Dr. *******

Dr. *******

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 ECE

Department of Electronics Engineering (ECE) 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 Bachelor, Master, and Doctoral programs in Electronics Engineering with the major thrust areas of Microelectronics, Microwave Engineering, Digital Techniques and Instrumentation and Communication Systems. In addition, continuing education programmers in specialized areas are offered on a regular basis for industry professionals and academic staff.

EMINENT SPEAKERS

- **Prof. P. K. Upadhyay (IIT Indore)**
- **Prof. Maurizio Magarini (Politecnico di Milano, Italy)**
- **Prof. Massimiliano Pierobon (University of Nebraska-Lincoln, USA)**
- **Prof. Teemu Myllylä (University of Oulu Finland)**
- **Prof. Preetam Kumar (IIT, Patna)**
- **Dr. Abhishek Dixit (IIT Delhi)**
- **Dr. Amritanshu Pandey (IIT (BHU) Varanasi)**
- **Dr. Atul Kumar (IIT (BHU) Varanasi)**
- **Dr. Sonam Jain (IIT (BHU) Varanasi)**

COURSE CONTENTS (Tentative)

Quantum communication and machine learning is a rapidly growing field and lots of breakthroughs have been achieved during the past decades. Quantum communication is transitioning from an emerging branch of science into a mature research field in science and engineering. Under this STC, we will explore how to achieve secure communication for wireless networks in the presence of quantum technologies. The usage ranges are oriented to the new merging technology such as big data analytics, artificial intelligence, privacy-aware computing, hybrid human-machine computing, and distributed ledger technology. This STC will cover:

- **Introduction, Background of Machine learning**
- **Statistical modelling of ML algorithms**
- **Use of ML for AI in communication system**
- **Introduction, Background of quantum communication**
- **Quantum communication-based system design**
- **quantum information theory**
- **Applications to quantum communication**
- **Hands-on ML algorithms using python**
- **Use of ML for Quantum communication system design**

REGISTRATION DETAILS

Registration Link:
https://www.idapthub.org/applications/stc

Last Date of Registration: October 20, 2023

Registration Fees (Including 18% GST)

Participation	Online	Offline
For UG, PG and PhD students:	Rs. 750	Rs. 1,500
Staff (Technical, Administrative and Others	Rs. 1,500	Rs. 3,000
For faculties, scientists and Post-doctoral Fellow	Rs. 2,000	Rs. 4,000
Industry Participants	Rs. 3,500	Rs. 7,000
International Participants	USD 100	NA

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:
Both online and offline

In case of any difficulty, you can contact us at Mobile number;
xxx.xxxx@iitbhu.ac.in,
xxx.xxxx@itbhu.ac.in