One Week Online
Faculty Development Program
on
"AI POWERED EVOLUTION: EXPLORING THE IMPACT OF AI IN SMART COMPUTING FOR SUSTAINABLE SOCIETY"

OCTOBER 13, 2025 – OCTOBER 17, 2025
Under the banner of
Electronics and ICT academy ,
National Institute of Technology Patna (HUB)

Organized by

Dept. of CSE & IT, Maulana Abul Kalam Azad University of Technology, West Bengal (SPOKE) and Dept. of IT, B. P. Poddar Institute of Management and Technology, West Bengal (SPOKE-affilifated)

Coordinators
Dr. Suparna Biswas
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Patron:
The Director, NIT Patna

Supported by
Ministry of Electronics and Information Technology (MeitY), Govt. of India.

ABOUT NIT PATNA

The National Institute of Technology (NIT) Patna is one of India's most historic technical institutions. On 28th January 2004, the college was rechristened as NIT Patna, becoming the 18th National Institute of Technology under the Ministry of Education, Government of India. NIT Patna has been a pioneer in technical education for well over a century, offering undergraduate (UG), postgraduate (PG), and PhD programs in engineering, technology, science, and humanities. With a mission to set high standards in education and research, NIT Patna is actively involved in research and development (R&D), pushing the boundaries of innovation across various fields.

ABOUT MAKAUT,WB

Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT, WB) is the nodal State Government University which provides affiliation to more than 200 Colleges spread throughout the state offering courses in Engineering & Technology, Pharmacy, Architecture, Management, Applied Sciences and various professional courses. The University is recognized under Section 2(F) and 12(B) of the UGC Act. The courses offered by the University are approved by AICTE and UGC. University offers UG, PG and PhD programs in various emerging areas, CSE, IT, Biotechnology UG courses are NBA accredited. The University is NAAC accredited and has NIRF ranking 51-100 (2024, State University ranking). The University has its main campus sprawling over 40 acres at Haringhata, Nadia.

ABOUT BPPIMT

B.P. Poddar Institute of Management and Technology (BPPIMT) was established in the year 1999, under the aegis of B.P.Poddar Foundation for Education, a Trust dedicated to enriching the quality of technical education in the country. The Institute was set up as a tribute to the memory of Late Badri Prasad Poddar, philanthropist and educationist and the founder of the B.P.Poddar Group. The B.P. Poddar Institute of Management & Technology is affiliated to the Maulana Abul Kalam Azad University of Technology, Kolkata and is approved by the All-India Council by Technical Education (AICTE), New Delhi.

ELECTRONICS AND ICT ACADEMY

The Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Patna is one. The Academy at NIT Patna aims to design and organize basic as well as specialized training programs in niche areas of electronics and ICT for the development of the required knowledge base, skills, and tools to equip the teaching community with better knowledge and understanding.

ABOUT THE THEME

AI is transforming smart computing by enabling systems to autonomously process and analyze data, improving decision-making and efficiency. With advancements in machine learning, neural networks and natural language processing, almost all applications ranging over Healthcare, Agriculture, Education, Speech Analysis, Security, Quantum Computing etc. are Ai Empowered. AI allows devices to learn, adapt and respond to user needs in real time. In fields like healthcare, agriculture and network security, AI enhances processes, boosts results and fortifies security. By automating tasks and personalizing experiences. AI drives innovation and creates smarter, more efficient solutions. As AI evolves, its influence on smart computing will revolutionize industries, leading to a more connected and intelligent future.

FDP INCLUDES

05-days training will be conducted by experts from academia and industries with experience ranging from several years to several decades in delivering sessions in India and abroad. The training hour is 08 hours each day. The mode of training is Instructor-led live online.

- **40 Hours o f Instructor-led live online Hands-on learning & Interactive Query Sessions.**
- Soft copy of study material, Training PPTs, recorded session & project code
- E-certificates will be given to participants who have **attended more than 70%** o f the workshop sessions and complete the **assessment** at the end of the FDP.
- **MODE OF CONDUCTION: Online**
- **Timings: Mon-Fri (09.00 AM- 06.00 PM)**

PROGRAM COMMITTEE

Chief Patron(s):
Prof. Tapas Chakraborty, Vice Chancellor, MAKAUT, WB
Prof. (Dr.) Sutapa Mukherjee, Principal, BPPIMT
Advisory Board:
Dr. Partha Pratim Lahiri, Registrar, MAKAUT, WB
Dr. Subhasish Pradhan, Registrar, BPPIMT

TOPICS TO BE COVERED...

Topic 1: Introduction to Artificial Intelligence, Neural Networks, Machine Learning, Deep Learning, Issues and Challenges, Real life Applications, Evolution of AI and AI empowered evolution for sustainable society.

Topic 2: AI and sustainability – how they are related? How AI powered solutions can be sustainable? AI driven Smart Agriculture and Food Supply for Sustainable Society.

Topic 3: Generative AI- AI systems that create new content — text, images, music, code, etc. based on learned patterns from data, e.g. ChatGPT, DALL·E, Midjourney, Bard etc. Agentic AI-AI systems that can autonomously plan, decide, and act toward achieving goals, often in dynamic environments.

Topic 4: Drug-Drug Interaction (DDI) Prediction using AI ,ML models – SVM, DT, RF, GNNs, DCNN, BiLSTM, DNN, EDN, XGBoost etc., highlights on data acquisition, processing, results, validation etc.

Topic 5: Application of AI, ML in smart healthcare, disease detection, prediction, in Intensive Care and Operation Theatre from a practitioner's perspective, Topic 5: AI with the potential to enhance accuracy and efficiency of interpreting medical images like X-rays, MRIs, and CT scans, application ranging over image recognition to disease management, predictive and personalized healthcare, clinical decision support etc. using CNN, HeadXNet model, 3D CNN.

Topic 6: AI applications in security and surveillance - intelligent video analytics, face recognition, AI in surveillance using multimodal data could be rule based or through behavioral analytics

Topic 7: AI in Education: Few Case Studies, Speech Analysis for child speech recognition

Topic 8: Game development using unreal engine, Process , Research areas, Application and Scope of AI
And many more....

RESOURCE PERSONS

Resource persons from leading industries, IITs, NITs and other eminent institutes

1. Prof. Biplab Sikder, NUS, Singapore
2. Prof. Amlan Chakrabarty CU, Kolkata
3. Prof. M. P. Singh, NIT, Patna
4. Prof. Nabanita Das, Ex-professor, ISI Kolkata, Professor, BPPIMT, Kolkata
5. Prof. Samir Roy, Ex-professor, NITTTR, Kolkata
6. Prof. Ram Sarkar, JU, Kolkata
7. Dr. Malay Bhattacharya, ISI, Kolkata
8. Dr. Sayandeep Saha, IIT Bombay
9. Dr. Mohan Bansal, IIIT, Sonepat
10. Dr. Anwesha Khasnobish Scientist, Embedded Systems and Robotics, TCS Research, Kolkata
11. Dr. Sanmitra Sarkar, Senior Director & Global Head, Generative & Agentic AI, Capegemini, Kolkata
12. Dr. Abhijit Kumar, AIIMS Kalyani
13. Dr. Anindya Halder, (NEHU), Meghalaya
14. Dr. Suparna Biswas, MAKAUT, WB.
    And many more…

WHO CAN PARTICIPATE

Faculty members, Research scholars of recognized Universities from India and Abroad, Research scholars, Students, and Industry personnels. However, priority will be given to the faculty members.

Selection will be done on first-cum-first-serve basis.
REGISTRATION FEE

For Indian Nationals: Rs. 500/- (Faculty/ Research Scholar/Student), Rs. 500/- (Industry)
For Foreigners: 60 US Dollars (Faculty/Research scholar/student), 60 US Dollars (Industry)

REGISTRATION PROCESS

1. Registration fee should be paid through online mode, the account details for this purpose is
   Account Name: E AND ICT ACADEMY
   Account No.: 50380476798
   IFSC Code: IDIB000B810
   Bank Name: Indian Bank

2. Registration form link:
   https://forms.gle/esnU4kLm9atPr7U19

E ICT ACADEMY
SCAN & PAY

UPI ID : eictacademy@indianbk

Scan the above QR code for payment using UPI apps.

3. The brochure of the program may be downloaded from the website https://makautwb.ac.in//, https://bppimt.ac.in//

4. **Registration deadline:**
   September 30, 2025, 11:59 PM (IST)

5. A PDF file of the online filled registration form with proof of registration fee paid should be sent by email in following email ids -

ADDRESS FOR CORRESPONDENCE

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