



AICTE Sponsored Offline Faculty Development Program on Recent Trends and Applications in Artificial Intelligence



Organized by

**Department of Computer
Science and Engineering,
School of Electrical and
Computer Sciences**

IIT Bhubaneswar

Bhubaneswar - 752050

www.secs.iitbbs.ac.in

Between

25th February – 01st March, 2025

Coordinators

Dr. Abhik Jana

Dr. Ram Prasad Padhy

ABOUT THE INSTITUTE

IIT Bhubaneswar, established by the Ministry of Human Resource Development, Government of India under The Institutes of Technology (Amendment) Act, 2011 came into existence on 22nd July, 2008. The Institute strives to offer the best engineering education with unmatched novelties in curriculum. Within a short span of incipience, IIT BBS has made rapid strides towards becoming one of the elite technology institutes of India spurred by sustained creation of knowledge and innovation, through high quality R&D activities and commitment to holistic education as students get exposed to a wide variety of activities through societies and clubs, involving liberal arts, design, dramatics, robotics, music, dance and sports, instilling them with social awareness, a spirit of innovation, entrepreneurship and thirst of discovery. All academic activities of the Institute are being carried out from the picturesque permanent campus

at Argul, spreading over 936 acres of land of serene and pollution-free academic environment, in the state of Odisha, India. It is located on the feet of the historic and magnificent Barunei Hills.

ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering at IIT Bhubaneswar is committed to excellence in education and research, preparing students for innovative roles in technology and academia. Offering undergraduate, postgraduate, and doctoral programs, the department focuses on a comprehensive curriculum covering key areas such as Theoretical Computer Science, Computer Architecture, Artificial Intelligence, Networks, Security and Software Engineering. Guided by a distinguished faculty with expertise in diverse research domains, students engage in hands-on learning and interdisciplinary research, supported by advanced labs dedicated to AI, IoT, and high-performance computing. The department actively collaborates with industry and research institutions, keeping its programs aligned with the latest technological advancements. With an emphasis on critical thinking, innovation, and industry-readiness, the department contributes to shaping the future of computing in India.

IMPORTANT DATES

Last date for registration: **5th February 2025**

Intimation of selection: **7th February 2025**

Confirmation of participation: **9th February 2025**

For further details, please contact:

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AICTE Sponsored Offline Faculty Development Program (FDP) on

Recent Trends and Applications in Artificial Intelligence (RTA-AI)

25th February – 01st March, 2025

APPLICATION FORM

Please fill the Google form using the link below



Click the form icon or scan QR code

Link: <http://bit.ly/40hWbMt>

Eligible faculty members of BBA/BCA/BMS institutes are requested to submit the filled-in application (Google form) along with the no objection certificate (NOC on institute letterhead) on or before 5th February 2025. The format for NOC is given on the next page.

ABOUT THE COURSE:

INTRODUCTION

The proposed FDP is designed to cover recent trends and applications of Artificial Intelligence (AI) across various fields. In recent years, AI has gained prominence in multiple domains, including academia, research, software industry, and manufacturing, due to its ability to learn independently without specific algorithms guiding it. Jobs in AI and data science have grown significantly, attracting many job seekers eager to master this technology. Notably, Machine Learning (ML) and Deep Learning (DL), both key subsets of AI, have become especially impactful. This course will explore diverse AI topics, including Computer Vision, Natural Language Processing (NLP), Large Language Models (LLM), Robotics, Generative AI, Explainable AI, AI for Computer Architecture and TinyML, etc.

COURSE OBJECTIVES

This event aims to educate participants on various AI research domains, focusing on recent trends and

applications. A significant portion of the course will delve into ML and DL applications. Additionally, programming sessions using Python and AI tools like PyTorch and TensorFlow will be included. Each course topic will have the corresponding hands-on session.

COURSE OVERVIEW

- Fundamentals of AI
- Mathematical Foundations of AI
- Classical AI and its Applications
- Pattern Recognition and ML
- Deep Learning and Neural Networks including CNN and RNN
- AI for Computer Vision and Vision Transformers
- AI for Natural Language Processing (NLP) and Large Language Models (LLM)
- AI for Robotics and Autonomous Systems
- AI for Computer Architecture and TinyML
- Generative AI and Applications

COURSE DURATION

The course is of one week duration (5 days) from 25th February – 01st March, 2025. Last date of registration is 5th February 2025.

RESOURCE PERSONS

The resource persons include experts from reputed academic institutions and industry.

ELIGIBILITY AND SELECTION

- Faculty members of BBA/BCA/BMS institutes are eligible to apply.
- While registration, the faculty members need to upload the NOC (on institute letterhead). Format is given on the next page.
- Only limited seats are available. Selection will be done on a first-come-first-serve basis.

REGISTRATION FEE

There is no registration fee for the participants.

FOOD/ACCOMMODATION/TRAVEL

- Refreshments, and food would be provided free of cost on all 5 days of the FDP
- Accommodation will be provided on request (Free of cost)
- There is no provision for traveling allowance

MODE

The FDP will be conducted in **offline mode** at IIT Bhubaneswar

Name of the Coordinator(s): Dr Abhik Jana and Dr. Ram Prasad Padhy
FDP Title: Recent Trends and Applications in Artificial Intelligence (RTA-AI)
FDP Start Date: 25/Feb/2025 **FDP End Date:** 01/Mar/2025

Date/Time	25/Feb/2025	26/Feb/2025	27/Feb/2025	28/Feb/2025	01/Mar/2025
9:00 AM – 9:30 AM	Inauguration				
9:30 AM – 11:00 AM (Theory Session)	Fundamentals of AI	Mathematical Foundations of AI	Deep Learning and Neural Networks including CNN and RNN	AI for Natural Language Processing (NLP) and Large Language Models (LLM)	AI for Computer Architecture and TinyML
11:00AM to 11:30 AM	TEA BREAK				
11:30 AM – 1:00 PM (Practical Session)	Package Installation, Environment Setting and Running Demo	Hands on Session on Mathematical Foundations of AI	Hands on Session on Deep Learning	Hands on Session on NLP, LLM and their Applications	Hands on Session on TinyML and its Applications
1:00 PM – 2:30 PM	LUNCH BREAK				
2:30 PM – 4:00 PM (Theory Session)	Classical AI and its Applications	Pattern Recognition and Machine Learning	AI for Computer Vision and Vision Transformers	AI for Robotics and Autonomous Systems	Generative AI and Applications
4:00 PM – 5:00 PM (Practical Session)	Hands on Session on Classical AI and its Applications	Hands on Session on Machine Learning	Hands on Session on AI for Computer Vision and its Applications	Hands on Session on AI for Robotics	Hands on Session on Generative AI (3:30 PM – 4:30 PM)
					Valedictory Session (4:30 PM – 5:30 PM)

Institute Letterhead

NO OBJECTION CERTIFICATE FORMAT

Ref.No.: _____

Date: _____

Certified that Dr./Sri./Smt.
is a faculty of our institute (**BBA/BCA/BMS degree providing institute**) and
is being permitted hereby for attending the faculty development program on
“**Recent Trends and Applications in Artificial Intelligence**” to be conducted
by the Department of Computer Science and Engineering, School of Electrical
and Computer Sciences, IIT Bhubaneswar in offline mode from **25th February,**
2025 to 01st March, 2025.

Signature of Competent Authority

(With date and seal)