Self-Sponsored

Online Workshop

On

Artificial Intelligence and Deep Learning

20th – 24th May, 2024

This is online workshop. The participant(s) should check updates and register only from below webpage:

https://sites.google.com/view/aidl2024workshop/home

or directly register through link:

https://forms.gle/oegqh1UQ3NZFriSP9

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Dr. Karunesh Kumar Shukla,
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Dr. Deepak Singh Tomar
Department of Computer Science and Engineering
Dr. R.N. Yadav
Department of Electronics and Communication Engineering

Coordinators

Dr. Vijay Bhaskar Semwal (CSE)
Dr. Mitul Kumar Ahirwal (CSE)
Dr. Rahul Kumar Chaurasiya (EC)

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Online Workshop

On

"Artificial Intelligence and Deep Learning"

20th – 24th May, 2024

Organized by

Department of Computer Science & Engineering
&
Department of Electronics and Communication Engineering



Maulana Azad National Institute of Technology
Bhopal -462003 (Madhya Pradesh)

IMPORTANT DATES

Last date of registration: ~~30th April 2024~~ 15th May 2024.

Notification about selection: By email.

About the Institute:

Maulana Azad National Institute of Technology Bhopal (An Institution of National Importance), offers various undergraduate and post graduate courses and research programs. Under the peaceful and friendly environment, MANIT is producing technocrats who are resources to Nation and the world. Our bright students with excellent technical skills have always contributed to the successes of various sections towards the technical group.

The total area of campus is 650 acres and protected by boundary wall and ring road. The entire campus consists of administrative and academic building, workshop, Library and community center, Residential area accommodation for students and staff and other general amenities such as post office, Shopping complex, a School for children, dispensary, an auditorium with the capacity of 1000 persons and sports complex with vast expanse of open area.

About Department:

The computer science and engineering department was established in the year 1986. Since the inception, it is consistently creating its place of excellence not only within the institute but among its counter parts in the country and abroad. Bright students from all the parts of the country for quality education in computer science and engineering at under graduate, post graduate, and doctoral levels are attracted. The department has highly qualified and competent faculty members, and adequate facilities to support teaching and learning activity.

About Workshop:

This workshop is fifth workshop conducted by the coordinators and CSE department in the series of Artificial Intelligence workshops. Title of first workshop was "*Artificial Intelligence and Machine Learning Applications*" and conducted in Dec. 2019. The second workshop was sponsored by ATAL academy on "*Artificial Intelligence"* and conducted in May 2020. Third workshop "*Artificial Intelligence and Machine Learning Applications*", was held in May 2021. Fourth workshop "*Artificial Intelligence and Dee Learning*", was held in Jan 2023. Course covered in this workshop is designed to provide an exposure to the fundamentals of Artificial Intelligence, Machine Learning and Deep Learning with their applications in Health care field. Participants will learn the implementation on Python. Data analysis and processing is also demonstrated in Python. The implementation of neural network, deep learning model like CNN, RNN, LSTM and autoencioder using tensor-flow and keras libraries will also be covered. Hands-on training and practice sessions will help participants to gain confidence on AI and DL concepts.

This course will be useful for faculty of engineering and sciences, research scholars who are interested in the learning of Artificial Intelligence, Machine Learning & Deep Learning models.

Topics to be covered:

- This workshop will also focus on basics of signal and image processing concepts, biomedical databases.
- Human motions analysis for Robot walk, EEG signal classification, will also be covered using Deep Learning.
- Human Decision Making Models.
- Introduction to optimization techniques.
- Wearable sensors based health monitoring systems
- **Idea and discussion over SERB-DST project writing and submission, and technical paper writing.**

Course contents

1. Introduction to Artificial Intelligence & Machine Learning.
2. Introduction to Artificial Neural Networks and it's implementation using python/MatLab.
3. Implementation of different deep learning models CNN, RNN and LSTM.
4. Modern Optimization Basics & Implementation of Genetic Algorithm
5. Musculoskeletal system analysis of body joints using OpenSim

Resource Person: Tentative External Experts:

1. Dr. Dr. Ram Bilas Pachori (Prof. IIT Indore)
2. Dr. N D Londhe (Asso. Prof. NIT Raipur)
3. Dr. Deepak Joshi (Asstt. Prof. IIT Delhi)
4. Dr. Anil Kumar (Asstt. Prof. IIIT Jabalpur)

Registration Details for Participants

The participants in the course will be faculty & Ph.D Scholars from Technical institutes. **The Registration fee as following:**

Participants	**Fee (Rs.)**
Student (UG/PG/Ph.D.)	750/-
Faculty Members	1,000/-
Industry Persons	1,200/-

Account details for Online payment of fee:

Acc. Name: Director MANIT
Acc. No.: 10020150107
IFSC code: SBIN0001608
Branch code: 001608

There will be no registration fees for MANIT students. This is online workshop.

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