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Capacity Building Programme Artificial Intelligence and Machine Learning

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Online Mode



Empowering Girls to Reduce the Gender Gap in IT and ITES Sectors in South Asia Region: Training and E-Content Development Programme

About Asi@Connect

Asi@Connect provides dedicated high-capacity internet connectivity for research and education communities across Asia-Pacific; operating at speeds of up to 10 Gbps, it currently interconnects universities and research centres in 21 countries/economies across the region. It also connects 50 million European researchers and academics served by the GÉANT network and supports collaborative programmes in areas such as earth observation, disaster warning, climate research, food security, delivery of e-health and e-learning.

About the Project

Reducing the gender gap in higher and technical education in the South Asia region is the need of the hour for the overall growth of the third world. Serious efforts are needed for greater involvement of girls in emerging technologies and future professions for the growth of the region. This project aims to bridge the gender gap in the South Asia region and create an ecosystem of collaborative learning and education by connecting people with cultural diversities and traditions. Under the project, skill development programmes for girl students and capacity building programmes for college and university teachers are being conducted. E-content development is also planned under the project in emerging areas of IT.

Project Team

- Prof. Aparajita Ojha, Prof. Pritee Khanna, Dr. Kusum K. Bharti, and Dr. Neelam Dayal, PDPM IIITDM Jabalpur, India
- Dr. Gaurav Trivedi, IIT Guwahati, India
- Prof. Mohammed Eunus Ali, BUET, Bangladesh
- Dr. Tulsi Gurung, Royal University of Bhutan
- Dr. Surendra Gautam, Tribhuvan University, Nepal
- Dr. Gajendra Sharma, Kathmandu University, Nepal

About the Course

Artificial intelligence (AI) has impacted the scientific advancements in recent years and almost every field is finding enormous applications of AI and Machine Learning (ML). With a view to develop capacity in universities and colleges of South Asia region, the course aims to cover important topics in AI and ML and to provide hands-on experience of developing and deploying AI models in different domains. This course will cover fundamental topics as well as the recent research in the field of AI and their applications.

Course Contents

Introduction to Artificial Intelligence, Search: Graph based search, heuristic search, adversarial search, Knowledge representation and reasoning, Probabilistic inferences, Introduction to python programming language, Keras and Tensorflow.

Introduction to Machine learning (ML), Applications of ML: classification, regression.

Artificial Neural Networks: Feed-forward networks, backpropagation, Optimization and regularization,

Deep learning. Convolutional neural networks (CNNs), CNN Architectures, Encoder decoder models for image segmentation, CNN models for Object detection and related problems

Sequence models: Recurrent neural networks, LSTM and GRU, Attention mechanism, Applications of RNN in NLP.

Recent Trends in Deep Learning, Explainable AI, Vision Transformer

COURSE COORDINATORS

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For details visit our website

https://www.iiitdmj.ac.in/asia-connect.iiitdmj.ac.in/AI_ML.html

Registration Link

<https://docs.google.com/forms/d/e/1FAIpQLSfOcglyPJ9jORH8zoC87i3A6t3yNneAFZRorUcRCWWYnmLgOA/viewform>

No Registration Fee. Course is open for faculty and research scholars. Register using the following link on or Before **March 08, 2023**:

Preference will be given to female applicants



Pandit Dwarka Prasad Mishra
Indian Institute of Information Technology,
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(An Institute of National Importance established by an Act of Parliament)