ABOUT KARYASHALA

Karyashala is a noble endeavour of Government of India under Accelerate Vigyan Scheme to improve research productivity of promising MTech and PhD students from universities and colleges through high-end workshops on specific themes. These events are sponsored by Science and Engineering Board (SERB). These workshops aim to equip the participants with specialized research skills. The workshops are facilitated at institutions of national importance. This High End Workshop on Fundamentals of Deep Learning is jointly organized by Indian Institute of Technology Guwahati and Research for Resurgence Foundation, Nagpur. The present event will be physically conducted at the Conference Center, IIT Guwahati during 12 – 18 September, 2022.

COURSE DETAILS

The last decade has witnessed an immense progress in the field of Deep Learning (DL). The DL models have been successfully deployed in various fields for different classification and regression tasks. Theory and practical knowledge of DL models is absolutely necessary for researchers working in the areas of Computer Vision, Natural Language Processing, Signal Processing and Robotics. This high-end workshop aims to introduce the participants to the fundamentals of Deep Learning. The workshop has a balanced focus on theoretical lectures (mathematical preliminaries and network models), hands-on sessions (Python and PyTorch implementations) as well as discussions on state-of-the-art research topics (deep learning applications). After completion of this course, the participants will be comfortable with understanding and PyTorch implementation of CNN, RNN, LSTM and GAN based models. Additionally, they will gain exposure to different research directions that employ such models.

ORGANIZERS AND RESOURCE PERSONS

Dr. Prithwijit Guha (EEE, IITG), Coordinator
Dr. Gaurav Trivedi (EEE, IITG), Co-coordinator
Lr. Rashmi Thakare (RFRF Nagpur), Co-coordinator
Dr. Suresh Sundaram (EEE,IITG)
Dr. Debanga Raj Neog (MFSDSAI, IITG)
Dr. Konda Reddy Mopuri (MFSDSAI, IITG)
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Department of Science and Technology (DST)

ORGANIZED BY

Indian Institute of Technology Guwahati

Research for Resurgence Foundation, Nagpur

LIST OF SESSIONS

Mathematical Foundations of Deep Learning	Artificial Neural Networks
Convolution Neural Networks	Recurrent Neural Networks
Generative Adversarial Networks	Neural Text Models
Vision and Language	Deep Reinforcement Learning
Hardware Implementation of ANN	Daily Practical Sessions Associated with Theory Lectures

WHO CAN ATTEND

The *High End Workshop on Fundamentals of Deep Learning* is open to postgraduate students from all Institutes, Colleges and Universities in India. Preferences will be given to the students working in the areas of Machine Learning, Deep Learning, Computer Vision, Signal Processing and Natural Language Processing. There are only 25 seats. There are no registration fees. For more details visit the Registration page.

HOW TO APPLY

Applicants can fill the online form available here or may proceed by scanning the following QR code

IMPORTANT DATES

Last date for Application : 10 September 2022
Workshop Dates : 12 - 18 September 2022