High End Workshop on Fundamentals of Deep Learning

(Under the Karyashala Scheme - A SERB initiative)

1. 12 - 18 September 2022, Indian Institute of Technology Guwahati

Workshop Schedule

Inauguration

(12 September 2022, Monday, 9:30 am - 10:00 am)

Prof. Dr. T.G. Sitharam	Dr. Rajesh Biniwale	Prof. G. Krishnamoorthy
Director, IIT Guwahati	Director General, RFRF, Nagpur	Dean II&SI, IIT Guwahati

Theoretical Sessions

Dr. Hanumant Singh Shekhawat, Dept. of EEE, IIT Guwahati 12 September 2022, Monday	
10:00 AM – 11:15 AM	Linear Algebra for Deep Learning
11:30 AM – 1:00 PM	Optimization for Deep Learning

Dr. Rajesh Biniwale, Cleaner Technology and Modelling Division, CSIR-NEERI 12 September 2022, Monday	
2:00 PM – 3:00 PM	Database Roadmap to Deep Learning: A Prerequisite

Dr. Suresh Sundaram, Dept. of EEE, IIT Guwahati 13 September 2022, Tuesday	
9:30 AM – 11:00 AM	Artificial Neural Networks, Perceptron, MLP and RBF ANN
11:30 AM – 1:00 PM	Backpropagation Algorithm, Learning Issues, ANN Evaluation

Dr. Debanga Raj Neog, MFSDSAI, IIT Guwahati 14 September 2022, Wednesday	
9:30 AM – 11:00 AM	Convolutional Neural Networks - Introduction
11:30 AM – 1:00 PM	Popular CNN Architectures and Applications

Dr. Konda Reddy Mopuri, MFSDSAI, IIT Guwahati	
15 September 2022, Thursday 9:30 AM – 11:00 AM	Recurrent Neural Networks, LSTM
16 September 2022, Friday 11:30 AM – 1:00 PM	Generative Adversarial Networks

Prof. Ashish Anand, Dept. of CSE, IIT Guwahati 15 September 2022, Thursday	
11:30 AM – 1:00 PM	Neural Text Models

Dr. Prithwijit Guha, Dept. of EEE, IIT Guwahati 16 September 2022, Friday	
9:30 AM – 11:00 AM	Vision and Language

Dr. Arghyadip Roy, MFSDSAI, IIT Guwahati 17 September 2022, Saturday	
9:30 AM – 11:00 AM	Reinforcement Learning - Introduction
11:30 AM – 1:00 PM	Deep Reinforcement Learning

Prof. Arijit Sur, Dept. of CSE, IIT Guwahati 18 September 2022, Sunday	
9:30 AM – 11:00 AM Adversarial Attacks and Defences on Deep Learning Models	

	Dr. Gaurav Trivedi, Dept. of EEE, IIT Guwahati 18 September 2022, Sunday
	11:30 AM – 1:00 PM Hardware Realization of Neural Networks

Practical Sessions

(2:00 PM – 5:00 PM, 12 - 17 September, 2022)

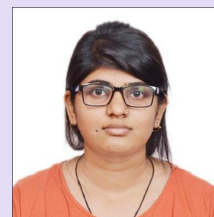| Mrinmoy Bhattacharjee	Yogesh Aggarwal	Pankaj Choudhury	Madhu Sudan Das

Chaitanya Kirti	Shrihari A	Meghali Deka	Pranjali Singh	Masuma Rahman

Evaluation

18 September 2022, Sunday, 2:00 pm - 3:00 pm

Valedictory Session

(18 September 2022, Sunday, 3:45 PM – 5:00 PM)

Shri Mukul Kanitkar, Akhil Bharatiya Sangathan Mantri Bharatiya Shikshan Mandal	Role of a Technocrat in a Smart and Intelligent World

Refreshments

High Tea (Inauguration)	12 September, 2022	9:00 AM - 9:30 AM
Tea/Coffee Break - I	12 - 18 September, 2022	11:00 AM - 11:30 AM
Lunch	12 - 18 September, 2022	01:00 PM - 02:00 PM
Tea/Coffee Break - II	12 - 18 September, 2022	03:30 PM - 03:45 PM
High Tea (Valedictory)	18 September, 2022	04:30 PM - 05:00 PM