

Focus Areas

Topics to be covered:

- Introduction to Image Processing and Computer Vision.
- Basics of Machine Learning and Deep Learning.
- Hands-on implementation of GAN, UNET, Transformer, etc. in various applications.
- Various applications of ML/DL in different biomedical fields.
- Introduction to NLP, Text Generation for Conversational Systems.

Experts:

- **Dr. Sandeep Singh Sengar**
Lecturer, Cardiff Metropolitan University, Wales
- **Partha Pratim Dasgupta**
Senior Fellow, IITG TIDF/TIH
- **Dr. Debajit Sarma**
Faculty Fellow, IITG TIDF/TIH
- **Dr. Aniruddha Mazumdar**
Data Scientist, Spina Analytica
- **Dr. Sandeep Pandey**
Lead Engineer, Samsung R&D
- **H Pallab Jyoti Dutta**
Research Scholar. IITG

Workshop Organizers

Patron:

Prof. G. Krishnamoorthy, Vice-Chairperson, IITG Technology Innovation and Development Foundation (IITG TIDF)

Convener:

Prof. Santosha K. Dwivedy, HoC, Centre for Intelligent Cyber Physical Systems (CICPS)

Coordinators:

Dr. Debajit Sarma (Phn. +91-9707644239)

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About Workshop

This 5-Day Online Workshop is on Machine Learning (ML) and Deep Learning (DL) Techniques with Applications covering both Theory and Hands-on part involving Academia-Industry Experts. It will try to bridge the gap between Academia and Industry on a trending topic like ML/DL. By completing this workshop, the participants will be able to explore various aspects/projects by themselves in the industry demanded topics related to ML/DL. There is a demand for such ML/DL Workshop with industry-oriented learning. So, we have involved experts from the industry as well as academia for this workshop.

Registration

Fee details:

Participants from IITG: 1000 INR

Other Participants: 1500 INR

Foreign Participants: 3500 INR

Registration Link: (valid till 05/01/2023)

<https://forms.gle/LZkmMCmYotfYUH9b8>

Please make the payment via details given below:

Bank: State Bank of India

Beneficiary: IIT Guwahati Technology Innovation and Development Foundation

Account Number: 39579885485

IFSC Code: SBIN0014262



**CICPS and TIH Division IITG TIDF
Organizes a 5-day Online Workshop from
07/01/2023 to 11/01/2023 on
Machine Learning & Deep Learning
Techniques with Applications**

About CICPS

Center for Intelligent Cyber Physical Systems (CICPS) at IIT Guwahati is established to promote activities focused on Technology and Human Resource Development, located at IIT Guwahati Research Park, Research building with an objective of fostering industry-academia collaboration.

TIH Division IITG TIDF

TIH (Technology Innovation Hub) Division IITG TIDF is running various projects to develop technology for societal needs. Underwater exploration system for underwater monitoring and surveillance, intelligent tracking system for drone technology are a few to name.

Day	Date	10 – 11.30	11.40 – 1	2 -3.30	3.40-5	7 – 8.30
1	07/01/2023 (Saturday)	N.A.	N.A.	Introduction Image Processing and Computer Vision (Dr. Sandeep Singh Sengar)		Hands-on Learning (Dr. Sandeep Singh Sengar)
2	08/01/2023 (Sunday)	Special Topics on DL including Transformers (Dr. Aniruddha Mazumdar)		Hands-on Learning (Dr. Aniruddha Mazumdar)	Implementation of UNET (H Pallab Jyoti Dutta)	Implementation of GAN (H Pallab Jyoti Dutta)
3	09/01/2023 (Monday)	N.A.	N.A.	N.A.	N.A.	Hand Gesture Recognition System (Dr. Debajit Sarma)
4	10/01/2023 (Tuesday)	N.A.	N.A.	N.A.	N.A.	Introduction to NLP (Dr. Sandeep Pandey)
5	11/01/2023 (Wednesday)	N.A.	N.A.	N.A.	N.A.	Text Generation for Conversational Systems. (Dr. Sandeep Pandey)
6	12/01/2023 (Thursday)	N.A.	Valedictory Ceremony (Chief Guest: Prof. G. Krishnamoorthy, Dean of IISI) Special Talk: Partha Pratim Dasgupta Venue: Seminar Hall, 3 rd Floor, R&D Building, IIT Guwahati		N.A.	N.A.