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One Week Workshop
On
Advance Computing Technologies

Date: 7th Feb, 2022 – 11th Feb, 2022

Objective: As we know that an immense advancement has been recently seen in the technologies relating to the computing and computer domain. Machine Learning, Deep Learning, Artificial Intelligence, Signal Processing, Cyber Physical System, Internet of Things (IoT) are few to name. The workshop is aimed at imparting knowledge and training on these advance technologies through practical hands-on with advance **MATLAB tools**. Hands-on sessions will be done by experts from **MathWorks and DesignTech Pvt Ltd**. Participants will explore and learn about the theory and practical details on above mentioned technologies. Hands-on sessions will be the most benefitting components of this workshop. Content covered is useful for participants from other engineering branches too, like Electronics and Electrical Engineering.

The workshop will be conducted in online mode.

Registration form link: https://bit.ly/3rvLfb7

Course Contents:

- **Introduction to MATLAB & Simulink**
- **Machine Learning & Deep Learning Basics**
- **MATLAB tools for ML & DL Implementation**
- **Transfer Learning Approaches**
- **Signal Processing on MATLAB**
- **FIR & IIR Filter design**
- **Communication System Design**
- **Introduction to IoT & Control System**
- **Modelling of Multi Domain System**
- **Working on Hardware and ThingSpeak**

Resource Persons

- **Professors from IITs, IIITs, NITs**
- **MATLAB Experts from MathWorks**
- **Faculty from MNNIT Allahabad**

Organizing Committee

Patron
Prof. Rajeev Tripathi, Director, MNNIT Allahabad

Chairman
Prof. D. S. Kushwaha, Head, CSE Dept.

Course Coordinators
Dr. Dushyant Kumar Singh, CSED
Prof. D. S. Kushwaha, CSED

Course Convener
Dr. Vibhav Prakash Singh, CSED

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सिद्धिर्भवति कर्मजा

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Tentative Schedule

- There will be two sessions per day

Session Date	1st Session (11:15 AM – 12:45 PM)	2nd Session (03:30 PM – 05:00 PM)
7 February 2022	**Inauguration**	Expert Training Sessions by **MathWorks** Experts
8 February 2022	Expert Sessions from Academia	**Introduction to MATLAB and Simulink**
9 February 2022	**Machine Learning Basics** **Towards Deep Learning** **DNN for Computer Vision** **Overview of different DNN Architectures**	**Signal Processing and Communications System Design with MATLAB & Simulink** **Machine Learning and Deep Learning with MATLAB**
10 February 2022	**Technology Perspectives of Internet of Things and Cyber Physical Systems**	**Introduction to IOT and Control System Design with MATLAB & Simulink**
11 February 2022	**Valedictory**	