



Contact us @



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Highlights

- ✓ 10-day workshop.
- ✓ 2 hours per day.
- ✓ Flexible timings 7:00- 9.00 PM
- ✓ Hands-on experience with Python.
- ✓ Real-world projects.
- ✓ Online mode.
- ✓ No class on special days.
- ✓ Video recordings will be available
- ✓ E-certificate of participation

**Program Coordinators: Dr. K. V.
Kadambari, Dr. M. Sandya, Dr. K V
Rao, Department of CSE
NIT Warangal**

online short-term Training Program on Deep Learning with Python

**(17th November – 27th
November, 2025)**



Course Content

➤ **Introduction**

What is Deep Learning (DL), AI vs. ML vs. DL, Applications.

➤ **Python Essentials**

NumPy, Pandas, Visualization, Scikit-Learn, Pytorch.

➤ **ANN Basics**

Artificial Neuron, Multi-layer perceptron, Forward and backward propagation, applications.

➤ **Convolutional Neural Networks**

Convolutions, Pooling, Deconvolutions, Feature extraction, and Classification, Classic CNN Architectures, Advanced CNN Variants, Training and Optimization, Applications.

➤ **Encoder-Decoder Architectures**

Encoder-Decoder, Auto-Encoders, Variational Auto Encoders, Transformers, Applications.

➤ **Sequence Modeling**

Representation Learning, Sequence Data, Vanilla RNN Architecture, Backpropagation Through Time (BPTT), Vanishing and Exploding Gradients, LSTM, Bi-LSTM, GRU, Multi-Head Attention, Large language models (LLMs).

➤ **Generative Adversarial Networks (GAN)**

GAN basics, Concept of Adversarial Training, Variants, Applications.

➤ **Deep Reinforcement Learning**

Reinforcement Learning, Deep Q-learning.

➤ **Applications and Case Studies**

Image segmentation, Image classification, Image localization, Machine translation, recommender systems.

➤ **Hands-on to the majority of the topics using Python.**

Where Technology Meets Innovation



Account Details

Registration Fee	Rs. 1000/-	Account Number	62266262236
Prerequisite	Machine Learning Course	Account Name	Director Research Account
Who can register?	UG, PG, PhD students, Faculty, and Industry experts.	Bank Name:	State Bank of India
Deadline	15 th November. Note: We may close the form early if the allocated number of registrations is reached.	Branch:	NIT Warangal
		IFSC Code	SBIN0020149

Projects

- ✓ Digit classification using ANN.
- ✓ Next word prediction using RNN
- ✓ Image segmentation
- ✓ Image classification using CNN
- ✓ Machine Translation
- ✓ Image localization

Registration link: <https://forms.gle/UrEwLBZ2Du7exS2E8>