

# 3-day hands-on Deep Learning Course

04 - 06 April, 2019

[www.kbcs.in/deeplearning](http://www.kbcs.in/deeplearning)

Artificial Intelligence (AI), Machine Learning (ML) and Deep Learning (DL) are attracting more attraction lately because of the recent innovations that have made headlines such as- Autonomous Cars, Machine Translation, Automatic Colorization, Biometric Recognition, Robotics.

DL is a big leap in AI and is a bunch of different types of neural networks and algorithms designed to solve real world problems with high accuracy.

Even for experienced ML practitioners, getting started with deep learning is time consuming and cumbersome. Through this course, our aim is to provide a solid foundation by covering the most widely used DL technologies and its applications to expedite participants' learning and build deep learning projects.

Machine/Deep Learning is one of the most in-demand talent in the industry

## Course Highlights

- *Interactive Classroom Training*
- *Delivered by CDAC Research Scientists with Extensive Experience in the field*
- *Real Life Deep Learning Use-Cases*
- *Insights on Deep Learning*
- *Assignments/Quiz*
- *Hands-on Projects*
- *GPU Accelerated Lab*
- *Certificate from CDAC*



Conducted by,



Centre for Development of Advanced Computing (CDAC) Mumbai

## Venue and Contact

Centre for Development of Advanced Computing (CDAC),  
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## Course Curriculum

### Deep Learning (DL) Foundation

- AI vs ML vs DL
- Review of ML & DL Fundamentals
- Neural Network (NN) and Deep Neural Network (DNN)
- Introduction to Keras, Tensorflow, and GPU devices
- Data Preparation for DL

### Convolution Neural Network (CNN)

- Computer Vision and CNN Introduction
- CNN Architecture
- Designing deep CNNs and Training
- CNN Fine-tuning: Transfer Learning
- CNN Applications: Object Detection, Segmentation, and Image Classification

### Recurrent Neural Network (RNN)

- Introduction of RNN and LSTM (Long Short Term Memory)
- Text Representation and Word Embeddings
- RNN Applications-Text Classification, Text Generation, Photo Caption Generation

14 hours of Classroom  
10 hours of Lab Sessions

## About CDAC

CDAC is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY), Govt. of India was established in 1988 and has R&D centres across 11 cities of India.

Mumbai centre of CDAC actively carries out R&D activities into various fields of software technologies such as Biometrics, Artificial intelligence, Language computing, E-governance, Mobile Computing, Machine translation, Accessibility, Information Retrieval, Extraction and Analytics. etc.

CDAC Mumbai has developed its own deep learning systems for Iris Recognition, Face Recognition, Text Classification, Text Generation and has been contributing actively to the latest research in the area through solutions and publications.

As part of initiatives in Education & Training, CDAC offers 11+ Post Graduate Diploma Courses of 6 months duration and provides training to 5000+ students each year. CDAC has 31 training centres across India and presence in several countries abroad.

## Registration Details

Professional/ Researcher/ Others	<del>₹15,000.00</del> ₹ 10,000.00 + GST
Student/Faculty	<del>₹12,000.00</del> ₹ 8000.00 + GST

- Group/Corporate discounts are available for more than three participants
- Registration fees covers Courseware, Lunch, Tea/Coffee & CDAC Certificate
- All payments can be made either by a DD/Cheque/UPI/NEFT
- For registration, discounts and other details please visit:

<http://www.kbcs.in/deeplearning>  
or e-mail us at [ml-courses@cdac.in](mailto:ml-courses@cdac.in)



## Course Objectives

On the completion of course, participants will be able to:

- Gain intense knowledge and understanding of deep neural networks (MLP, CNN, RNN, LSTM)
- Understand complete ML/DL project pipeline-solution designing, selection of algorithms, data preparation, building, training and deploying DL models
- Work with Keras, Tensorflow and GPUs for faster processing
- Work with Image and Text as input data to ML/DL algorithms

## Who Should Attend

- IT Professionals
- Faculty Members
- M.Tech./B. Tech. Students

## Other Benefits

- Networking opportunities
- A participant centric course rather than an instructor centric online course
- One to one discussion and on the spot problem solving
- Take away study and project material