



TensorFlow



Keras

ONLINE

# MACHINE LEARNING 5 DAYS WORKSHOP

INTRODUCTION TO THE COURSE | SUPERVISED ML

SPEAKER

Thakshila Thilakanayake

*BSc. Engineering Hons, MPhil (Reading)*

# Introduction to the Course



- The course is specially designed for the beginner and intermediate level employees, undergraduates, students and developers interested in learning and practicing Machine Learning Algorithms.
- This course covers the fundamentals of Machine Learning to the advanced concepts with practical applications where ever necessary
- The practical sessions will be based on the applications which use Python Programming Language, Scikit-Learn, Numpy, Pandas, Matplotlib and OpenCV software platforms.
- The course contains 5 Live Lectures, 5 Practical Sessions and 1 Pre-recorded Lecture Series.
- All the Live Lectures, study materials, codes and assignments will be available in [www.edxcope.com](http://www.edxcope.com)

# Method of Conduct

Per day, there will be a 3 hour Online Live Lecture, 1-2 hour Practical

1. Online Live Lecture (3 hours/Day) – Weekdays 6:00PM-9:00PM
  - interactive session, where you can directly ask questions, clarify doubts and discuss
2. Practical Session (1-2 hours/Day) – Pre-recorded Video after the lecture
  - Materials will be available in GitHub and the link will be provided in due course
  - Video will be uploaded to [edscope.com](https://edscope.com)
3. Extra Day – DAY 00
  - Pre recorded Lecture series for Python Basics and Modules

DAY	Lecture	Practical
<b>DAY 01</b> Introduction to Machine Learning, Supervised Machine Learning I	Part 1 - Introduction to Machine Learning Part 2 - Introduction to Supervised Learning Part 3 - Classification Algorithms Part I - K Nearest Neighbor Algorithm	Training and Evaluation of KNN algorithm for Handwritten Character Recognition with a PC Application
<b>DAY 02</b> Supervised Machine Learning II, Support Vector Machine	Part 1 - Introduction to Support Vector Machine Part 2 - SVM Kernels Part 3 - Training a SVM pipeline for Face Recognition	Training a SVM pipeline for Face Recognition
<b>DAY 03</b> Supervised Machine Learning III, Introduction to Regression Algorithms	Part 1 - Introduction to Linear Regression Part 2 - Polynomial Regression Part 3 - Multivariable Linear Regression	Deploying the heart risk level predicting Regression model in a web application using Flask.
<b>DAY 04</b> Unsupervised Machine Learning I Clustering	Part 1 - Introduction to Clustering algorithms Part 2 - Introduction to KMeans Clustering Part 2 - Introduction to Meanshift Clustering	Brain Tumor Detection using Color Segmentation with KMeans Clustering
<b>DAY 05</b> Unsupervised Machine Learning II Clustering Feature and Engineering	Part 1 - Feature Engineering (Data Preprocessing for Machine Learning Algorithms) Part 2 - Dimensionality Reduction Algorithms, Principal Component Analysis	Machine Learning Model Deployment in Servers for Web and Mobile applications
<b>DAY 00</b>	Part 1 - Setting Up the Environment Configuration Part 2 - Python Programming Essentials	

# Certificate

All the participants are eligible to obtain a participating certificate upon the successful completion of the course.

The certificate is offered through EdXcope by Global Eye International (Pvt) Ltd.



GEI is a Registered Private Limited Company in Sri Lanka providing Consultation, Training and Knowledge Partner in International Certification



# Payments

All the payments should be done through the verified and secured online payment gateway integrated in [www.edxcope.com](http://www.edxcope.com)

## Payment

1. The total course fee is 3,000LKR (All Inclusive)
2. The total course fee should be paid on the 2nd day of the course.
3. Participant can request for an extension of deadline through the Lecturer



# Resource Personnel

## Thakshila Thilakanayake

B.Sc. Engineering (Hons), MPhil (Reading)

A passionate educator, trainer and developer in the fields of Robotics, Data Science, Machine Learning and Deep Learning with several years of demonstrated experience, who guides the community with the latest research findings and technologies in the subjective fields. Currently conducting workshop, courses and cooperate training sessions in several institutes.

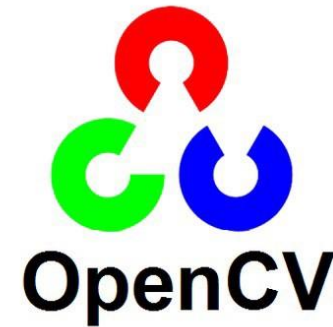
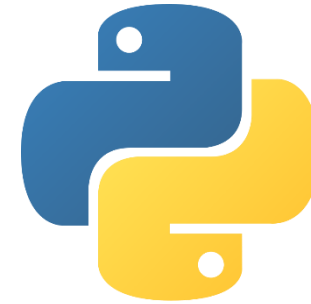


Press the icons to navigate



# Tools

- Programming Language: Python
- Modules used: Scikit Learn, Tensorflow, Keras, OpenCV, Numpy, Matplotlib
- Development Environment: Anaconda Navigator (Jupyter Notebook)



# References

1. Oliver Theobald, Machine Learning for Absolute Beginners (2nd Edition), 2018
2. Jake VanderPlas, Python Data Science Handbook: Essential Tools for Working with Data, 2016, O'Reilly Media, Inc.

# Let's Get Started

with Machine Learning

