



TensorFlow



Keras

ONLINE

# ADVANCED PYTHON 5 DAYS WORKSHOP

INTRODUCTION TO THE COURSE | PYTHON BASICS

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 Python for ML, DL, IP and DS.
- This course covers the fundamentals of ML, DL, IP and DS 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, TensorFlow, Keras and OpenCV software platforms.
- The course contains 5 Live Lectures, 5 Practical Sessions and 1 Pre-recorded Lecture Session.
- 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 [edxcope.com](https://edxcope.com)

DAY	Lecture	Practical
<b>DAY 01 - Monday</b>  Introduction to Python and Python Programming Basics	Part 1 - Setting Up the Environment Configuration Part 2 - Python Programming Essentials and Python Modules I Part 3 - Python Functions	Python Programming Basics
<b>DAY 02 - Tuesday</b>  Data Processing and Visualization using Numpy, Scipy and Matplotlib	Part 1 - Python Modules Part 2 - Numpy Part 3 - Matplotlib Part 4- Introduction and Basic Usage of Pandas	Python External Modules
<b>DAY 03 - Wednesday</b>  Image Processing with OpenCV	Part 1 - Low Level Image Processing with OpenCV Project 01 - Object Detection using Pure Image Processing and Color Segmentation Project 02 - Sinhala Character Recognition PC Application	Object Detection using OpenCV
<b>DAY 04 - Thursday</b>  Machine Learning with Scikit Learn	Part 1 - Introduction to Machine Learning, Supervised Machine Learning Part 2 - Introduction to K Nearest Neighbor Classifier	Handwritten digits Recognition Web App using Flask
<b>DAY 05 - Friday</b>  Web Framework development with Flask	Part 01 - Introduction to Python Web-frameworks Part 02 - Introduction to Python Backend development with Flask Part 03 - Introduction to the deployment of ML,DL model in Python backends.	Deployment of Python Backends in Google Cloud Platform

# 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 3,500LKR (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.

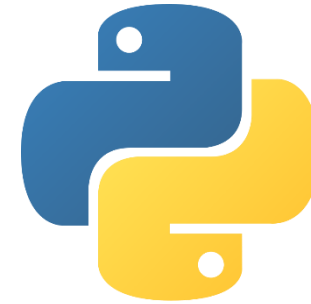


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# Tools

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



Pandas



# 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 Advanced Python

