# **WEEK-1: Python and Data Science libraries**

## Task-1: Python Installation and Tutorial

For those of you who are not familiar with the Python Programming Language here are some links to get you going through the basics like data types, operators, loops, conditionals, lists, tuples, dictionaries.

(You needn't go through the entire content just the topics mentioned above.)

#### Youtube Link -

<u>https://www.youtube.com/playlist?list=PLsyeobzWxl7poL9JTVyndKe62ieoN-MZ3</u> ( video 1 - 25 )

#### W3schools -

https://www.w3schools.com/python/default.asp

# Task-2: Getting familiar with numPy and Matplotlib

In this task, you will familiarise yourselves with the libraries needed for the implementation of the project and Python functions. Numpy is a python library which will be helpful in computation of the data and matplotlib with visualisation of the results.

### Numpy Tutorial and Functions in Python -

https://www.youtube.com/playlist?list=PLsyeobzWxl7poL9JTVyndKe62ieoN-MZ3 ( video 30 - 38 )

#### W3schools -

- **a) Numpy:** <a href="https://www.w3schools.com/python/numpy/default.asp">https://www.w3schools.com/python/numpy/default.asp</a> (in random subsection you may leave the part after uniform distribution).
- **b)** Matplotlib: <a href="https://www.w3schools.com/python/matplotlib\_intro.asp">https://www.w3schools.com/python/matplotlib\_intro.asp</a>
  ( You don't need to rush through all the content as of now you just need to know how to plot basic plots. You may refer back to this link as and when required.)