Data Science with Python (Basics)

Data is the oil of the 21st century and programming and analytical skills are at the core in many professions. Focusing on the 2 areas of programming and data management this course teaches the basics of Python in the context of data science applications.

From the installation, the essential objects and programming basics to simple analyses, the participants will get all the prerequisites to write their first applications in Python. The course focuses also on the Pandas library which is considered a key tool to perform statistical data analysis in Python.

Objectives

- Get to know basic and advanced programming concepts of Python
- Create and manage own projects
- Get to know central concepts of data management
- Writing own analysis scripts
- Create first visualizations

Participation requirements

This course is designed for people who have no previous experience in the Python programming language but would like to use it in the future. No prior knowledge is required for participation.

Software requirements

- Python (Anaconda-Distribution) in current Version (the development environments 'Jupyter Notebooks' and 'Spyder' should be set up; Python should be entered in the environment variables of the operating system – this can already be done during the installation)
- PyCharm in current version (Community-Version)

Please note

This workshop cannot be credited as qualification measures at the Department of Mechanical Engineering. However, you are welcome to participate.

Trainer: Andreas Wygrabek

This course will be held in English and online.

WHEN

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.11.2021</td>
<td>09:00 - 12:00, 14:00 - 17:00</td>
</tr>
<tr>
<td>09.11.2021</td>
<td>09:00 - 12:00</td>
</tr>
<tr>
<td>10.11.2021</td>
<td>09:00 - 12:00, 14:00 - 17:00</td>
</tr>
</tbody>
</table>