## **PRODYOGIKI '19**

## **DataThon Workshop**

**Data science** is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from data in various forms, both structured and unstructured similar to data mining.

Data science is a "concept to unify statistics, data analysis, machine learning and their related methods" in order to "understand and analyze actual phenomena" with data. It employs techniques and theories drawn from many fields within the context of mathematics, statistics, information science, and computer science.

## What we will cover in this workshop:

- 1. Introdution to data science.
- 2. Basic Data Analysis, e.g. Exploratory Data Analysis (EDA), Data cleaning, Data storage/Import&Export, Linear Regression.
- 3. Machine Learning Models and Applications, e.g. Multivariate Analysis ,Random Forest, SVM, Pattern Recognition, Text mining ,Neutral Networks.