Statistical Consulting Unit

Workshops/Training courses

Fall 2022

Workshop #5

Title: Big Data Foundations

Statistical Software: R

Requirements: Hypothesis testing and linear regression

Instructor: Dr. Dr. Chafik Bouhaddioui

Target Group: Professionals, graduate students, research workers

Period: 3 days, 4 hours/day

Date: 21 Nov. 2022 - 27 Nov. 2022

Platform: Face to Face **/**Online/Zoom Meeting

Inclusive of Scientific Materials: Seminars include live lectures, hands-on exercise assignments, and plenty of chances to ask questions. PowerPoint Slide Presentation and E-Certificate,

Description:

Big data are data on a massive scale in terms of volume, intensity, and complexity that exceed the capacity of standard analytic tools. This workshop focuses on recent methodological and software developments in analytics that address the big data challenges. It includes the introduction to big data, subsampling-based, Multidimensional Visualization, Dimensionality Reduction, Classifier performance, Classification and Neural Network for big data. The course will focus on the use of some handmade functions in R. Preferably, participants should have minimal programing.

Topics Covered:

Day 1: Introduction to Big data; Big data challenges; Use of Data Visualization; Basic and advanced Charts; Multidimensional Visualization; Hands-on with real data.

Day 2: Curse of Dimensionality; Principal Component Analysis; Evaluation Predictive Performance; Judging Classifier Performance; Oversampling; Hands-on with real data.

Day 3: Multiple Linear Regression; k-Nearest-Neighbors; The Naïve Bayes Classifier; Classification and Tree Regression; Logistic Regression; Neural Nets and Discriminant Analysis; Hands-on with real data.

Workshop Fee: 1500 AED

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