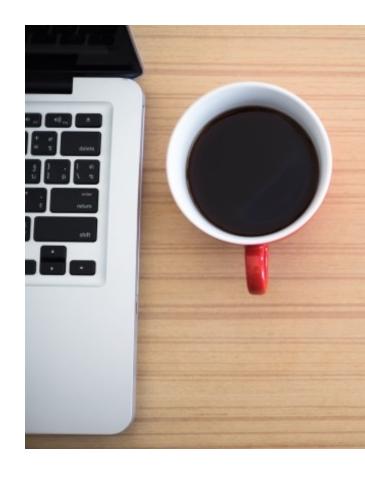


Fourth Industrial Summer School

Module 3 – Introduction

Session Objectives

- ✓ Module Objectives
- ✓ Module Topics
- ✓ Module Instructor
- ✓ Module Delivery



Module Objectives

Description

 Data analysis foundations covers a wide range of topics essential for data analysis such as: statistical concepts for predictive modelling, data plotting and visualization, exploratory data analysis, feature engineering and dimensionality reduction.

Objectives. Participants should be able to:

- Understand necessary statistical concepts for predictive modelling.
- Plot and visualize data using different data visualization charts.
- Understand exploratory data analysis and visualize distributions, relationships, and groups.
- Ability to perform feature engineering and reducing dimensionality.
- Understand time series data and perform feature extraction on them

Module Topics

- Predictive modeling
- Hypothesis testing
- Parametric and non-parametric tests
- Correlation
- Exploratory Data Analysis (EDA)
- Data plotting and visualization
- Estimating correlation and association
- Feature Engineering
- Feature Extraction with PCA
- Time series
- Feature extraction in time series

Module Instructor

Hamoud Ibrahim Aljamaan, PhD

- Graduated in Dec 2015.
- University of Ottawa, Canada.

Current work:

- Assistant Professor, ICS dept.
- Chairman, ICS dept

Main research area:

- Machine learning
- Code smell detection
- Software defects
- Software maintainability
- Time series analysis



Module Delivery

Morning session

- 1. Lecture
- 2. Hands-on problem solving

Afternoon session

- 1. Lecture
- 2. Hands-on problem solving

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Module Delivery

Lecture

Instructor will go over the topics.

Hands-on problem solving

- Instructor will go over Questions.
- Participants starts solving problems.
- Sharing solutions.
 - Instructor will pick a participant to share his solution (screen).

Let's Get Started