BRITISH EXCELLENCE CENTRE

DE MONTFORT UNIVERSITY LEICESTER

# Big Data Analytics: Data-driven decision making project


Organised by: De Montfort University - Cyber Technology Institute
Dates: 30th March - 3rd April 2020 (5 days)

# EXECUTIVE SUMMARY

## Description

Gain essential skills in today's digital age to store, process and analyse data to inform business decisions. In this course, part of the Big Data MicroMasters program, you will develop your knowledge of big data analytics and enhance your programming and mathematical skills. You will learn to use essential analytic tools such as Apache Spark.

Topics covered in this course include:

- cloud-based big data analysis;
- predictive analytics, including probabilistic and statistical models;
- application of large-scale data analysis;
- analysis of problem space and data needs.

By the end of this course, you will be able to approach large-scale data science problems with creativity and initiative.

What you'll learn

- How to develop algorithms for the statistical analysis of big data;
- Knowledge of big data applications;
- How to use fundamental principles used in predictive analytics;
- Evaluate and apply appropriate principles, techniques and theories to large-scale data science problems.

## Indicative Content

Simple linear regression
Modelling data
Classification
Prediction using models
Supervised machine learning
Deep learning applications and scaling up
Bringing it all together

Consolidate your understanding of relationships between the methodologies presented in this course, the irrelative strengths, weaknesses and range of applicability of these methods.

The workshop is directed to faculty members, researchers and PhD candidates. If you are looking to improve your career prospects in Big Data.

## Registration Fees

| Note: All fees are in GBR Pounds (£) | Early Registration Rates (by 1st Jan 2020) | Late Registration Rates (After 1st Feb 2020) |
|---|---|---|
| Full workshop registration (five Days) | £2000 | £2300 |
| Two-Day registration | £1200 | £1500 |

For payment, please email Dr Adam Carter
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## Presenters

Prof Eerke Boiten (https://www.dmu.ac.uk/about-dmu/academic-staff/technology/eerke-boiten/eerke-boiten.aspx)

Eerke Boiten spent the first twenty years of his research career, first in the Netherlands and then in the UK, on mathematics, logic based methods, and data science to guarantee and verify the correctness of software. He published over 50 peer reviewed papers on formal methods, including program transformation, viewpoint specification, and refinement in process algebra and state-based systems (e.g. Z). On the latter topic, he authored the monograph “Refinement in Z and Object-Z” with John Derrick (Springer 2004, 2015), and organised many conferences and workshops including nine editions of the BCS-FACS Refinement Workshop.

## Venue

De Montfort University

## Organiser

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