Big Data Analytics

Module Information

2022.01, Approved

Summary Information

Module Code	6173CSD
Formal Module Title	Big Data Analytics
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

Learning Methods

Learning Method Type	Hours
Lecture	16
Practical	12
Tutorial	8

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To develop an understanding of the concepts, principles and techniques involved in Big Data analytics, and how this can be used to control smart systems.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically appraise the concepts, principles, opportunities and issues surrounding Big Data.
MLO2	2	Evaluate and apply high level skills of data analytic techniques in the context of Big Data.
MLO3	3	Analyse computer-based models for solving complex problems through big data analytics to control smart systems.

Module Content

Outline Syllabus	Big Data Analytics: principles and techniques, issues and opportunities, statistical algorithms and community clustering principles, issues affecting security and privacy.Modelling tools and simulation techniques to explore limitations and issues with data analytics techniques.Application/case study.
Module Overview	
Additional Information	This module looks at the technologies used to 'mine' data and examines big data sets to uncover and highlight previously hidden and unexpected patterns and correlations to improve and inform the decision-making process. Techniques at linking big data analytics to control smart systems is explored.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Report	70	0	MLO1, MLO2, MLO3
Report	Lab	30	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Karl Jones	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings