Advanced Networking

Module Information

2022.01, Approved

Summary Information

Module Code	6214COMP
Formal Module Title	Advanced Networking
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	11
Tutorial	11

Module Offering(s)

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

Aims and Outcomes

Aims	To develop and extend students ability to critically analyse state-of-the-art developments in networking.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate a range of state of the art developments in networking.
MLO2	2	Critically analyse state of the art research in networking.
MLO3	3	Assess the impact of state of the art platforms on networking applications.

Module Content

Outline Syllabus	A range of state-of-the-art networking technologies will be studied, including:Internet of Things (IoT):IoT Network structures, organisation and protocolsLarge-scale and Massive IoTSoftware Defined Networking (SDN):Network Operative SystemOpenFlowSDN ArchitectureNetwork Function Virtualization (NFV):Virtual MachinesNFV ArchitectureScalabilityCloud Computing:Data CentresArchitectures and organisationService ModelsNetwork Performance Measurement:Congestion ControlQuality of ServiceQuality of Experience
Module Overview	This module will examine advanced topics in computer networking and use case studies to help you develop an understanding. The module aims to develop and extend your ability to critically analyse state-of-the-art developments in networking.
Additional Information	This module will examine advanced topics in computer networking and use case studies to help students develop an understanding. These will be research-informed and may vary from year-to-year, i.e. to keep up with research developments.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Application Evaluation	50	0	MLO1
Portfolio	Network Design Model	50	0	MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Alessandro Raschella	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings