Liverpool John Moores University

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Title:	Internet of Things
Status:	Definitive
Code:	**5175CSD** (125573)
Version Start Date:	01-08-2021
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Engineering

Team	Leader
Magomed Muradov	Y

Academic Level:	FHEQ5	**Credit Value:**	20	**Total Delivered Hours:**	66
Total Learning Hours:	200	**Private Study:**	134		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	22
Practical	44

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	ASS 1	2,500 word report	70	
Technology	ASS 2	2,000 word lab report	30	

Aims

Modern smart devices rely on the use of cloud technology for data storage and security and app availability that is automatically updated without any intervention on our part. Couple the cloud to everyday objects at the office or around the home results in an enormously powerful environment that can be controlled and efficiently managed whenever and wherever required. This module aims to provide us with the

knowledge and skills to take the best benefits from such technology.

Learning Outcomes

After completing the module the student should be able to:

1	Apply deeper knowledge of more advanced programming techniques to the smart environment.
2	Apply more advanced techniques to applications for complex remote and mobile systems.
3	Write effective and comprehensive design and end-user documentation.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Report	1	2	3
Lab	1	2	3

Outline Syllabus

Internet of Things - understanding IoT
Network hardware – hubs, switches
MAC addressing, IPv4, IPv6.
Internet Connectivity – TCP/IP, SMS, MQQT
Message Brokering – Mosquito.
IOT – technology, protocols, security issues.

Learning Activities

A series of structured lectures and practical tasks will provide a varied range of learning activities.

Notes

The module provides the student with a practical software and hardware-based design activity.