Liverpool John Moores University

Title:	TELEMETRY, COMMUNICATIONS AND INTERFACING
Status:	Definitive
Code:	**6020TECH** (105435)
Version Start Date:	01-08-2016
Owning School/Faculty:	Electronics and Electrical Engineering
Teaching School/Faculty:	Electronics and Electrical Engineering

Team	Leader
Ronan McMahon	Y

Academic Level:	FHEQ6	**Credit Value:**	24	**Total Delivered Hours:**	74
Total Learning Hours:	240	**Private Study:**	166		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	48
Practical	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	60	2
Essay	AS2	Coursework 1	20	
Essay	AS3	Coursework 2	20	

Aims

This level 3 module builds on level 2 material to provide an appreciation of modern industrial networks and data transport.

Learning Outcomes

After completing the module the student should be able to:

1	Discuss different network structures.
2	Evaluate network routing methodologies and security strategies
3	Compare different communications techniques
4	Discuss different interfacing options.

Learning Outcomes of Assessments

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

EXAM	1	2	3	4
CW	4			
CW	3			

Outline Syllabus

OSI 7-layer and Internet reference models
Deterministic and non-deterministic traffic.
Fieldbus, Flexray and Controller Area Networks
LANs and Wireless LANs
Network structures and Security
IP Networks and Routing,
Modulation and coding.
Copper, Fibre and Radio transport
Interfaces

Learning Activities

By a series of lectures and practical demonstrations

Notes

This level 3 module covers the areas of networks in industrial environments.