

Summary Information

Module Code	5514NCCG
Formal Module Title	Embedded Microprocessor Systems
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Nelson and Colne College Group

Learning Methods

Learning Method Type	Hours
Lecture	36
Workshop	24

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
APR-PAR	PAR	April	12 Weeks
JAN-PAR	PAR	January	12 Weeks

SEP-PAR	PAR	September	12 Weeks
SEP_NS-PAR	PAR	September (Non-standard start date)	12 Weeks

Aims and Outcomes

Aims	The aim of this module is to provide students with: An understanding of microprocessor-based systems and their use in instrumentation & control systems. Practical experience of producing microprocessor-based solution to real-world engineering problems An ability critically to evaluate the suitability of a range of microprocessors / microprocessor solutions for specific engineering scenarios.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explore the principle features of a microcontroller and explain the purpose of its constituent parts.
MLO2	2	Design, produce and test software for a microprocessor-based system to meet a given specification
MLO3	3	Produce and critically evaluate a microprocessor solution to a specific engineering problem.

Module Content

Outline Syllabus	Introduction to microcontroller-based systems, architecture and applications Comparison of Harvard and Von Neumann architectures, RISC and CISC cores Development of software for a microcontroller-based system Produce and evaluate a microprocessor solution to a specified problem.
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Report	60	0	MLO2, MLO3
Presentation	Presentation	40	0	MLO1

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Christian Matthews	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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