FACULTY OF ENGINEERING

DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING

AUTONOMOUS ROBOTIC INTELLIGENT SYSTEMS

Master of Science in Autonomous Robotic Intelligent Systems
Postgraduate Diploma in Autonomous Robotic Intelligent Systems
Postgraduate Certificate in Autonomous Robotic Intelligent Systems

These regulations are to be read in conjunction with General Academic Regulations - Postgraduate Taught Degree Programme Level.

Admission

1. Notwithstanding the General Academic Regulations - Postgraduate Taught Degree Programme Level, applicants shall possess:

    i. a first or second class Honours degree (in electronic, electrical, communications or design manufacture engineering, or a science-related subject) from a United Kingdom university; or
    ii. a qualification deemed by the Programme Leader acting on behalf of Senate to be equivalent; or
    iii. have appropriate professional experience.

2. In all cases, applicants whose first language is not English shall be required to demonstrate an appropriate level of English.

Duration of Study

3. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Mode of Study

4. The programmes are available by full-time and part-time study only.

Curriculum

5. All students shall undertake an approved curriculum as follows:

    i. for the Postgraduate Certificate no fewer than 60 credits from the list of taught modules
    ii. for the Postgraduate Diploma no fewer than 120 credits including all the compulsory modules
    iii. for the degree of MSc no fewer than 180 credits including the EE998 project.

Compulsory Modules

Module Code	Module Title	Level	Credits
DM954	Intelligent Sensing and Reasoning through Machine Learning	5	10
EE992	Neural Networks and Deep Learning	5	10
DM942	Manufacturing Automation	5	10

DM986	Mechatronic System Design Techniques	5	10
EE474	Robotics and Control Systems	4	20
EE986	Assignment and Professional Studies	5	20
EE987	Sensor Technologies	5	20
Students for the degree of MSc only:			
EE998	MSc project	5	60

Students who have previously completed any module from the list of compulsory modules will be required to undertake an appropriate alternative as approved by the Programme Leader.

Optional Modules

No fewer than 20 credits chosen from:

Module Code	Module Title	Level	Credits
DM920	Strategic Technology Management	5	10
DM923	Product Modelling and Visualisation	5	10
DM934	Design Methods	5	10
DM939	Digital Manufacturing Concepts	5	10
DM945	System Thinking and Modelling	5	10
DM946	Micro- and Nano-Manufacturing	5	10
DM947	Advanced Forming Technology Systems	5	10
DM948	Advanced Materials and Production Technology	5	10
DM951	Design for Industry 4 and Smart Products	5	10
EE981	Image and Video Processing	5	20
EE972	Control Principles	5	20
EE978	Advanced Digital Signal Processing	5	20
EE579	Advanced Microcontroller Applications	5	20
EE980	Embedded System Design	5	20
EF927	Design Management	5	10
EF945	Knowledge & Information Management for Engineers	5	10

Not all optional modules in this list will be available each year.
Exceptionally, such other modules totalling no more than 20 credits, as approved by the Programme Leader.

Students may not select any module from the list of optional modules which they have previously successfully completed.

Students without appropriate background knowledge may be additionally required to undertake selected foundation modules.

Examination, Progress and Final Assessment

6. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

7. The final award will be based on performance in the examinations, coursework and the EE998 Project where undertaken.

Award

8. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Autonomous Robotic Intelligent Systems, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, of which 60 must have been awarded in respect of the EE998 Project.

9. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Autonomous Robotic Intelligent Systems, a candidate must have accumulated no fewer than 120 credits from the taught curriculum.

10. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Autonomous Robotic Intelligent Systems, a candidate must have accumulated no fewer than 60 credits from the taught curriculum.