

FACULTY OF ENGINEERING

DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING

ADVANCED ELECTRICAL POWER AND ENERGY SYSTEMS

Master of Science in Advanced Electrical Power and Energy Systems
Master of Science in Electrical Power and Energy Systems
Master of Science in Electronic and Electrical Engineering
Postgraduate Diploma in Electrical Power and Energy Systems
Postgraduate Diploma in Electronic and Electrical Engineering
Postgraduate Certificate in Electrical Power and Energy Systems
Postgraduate Certificate in Electronic and Electrical Engineering

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 Electrical and Electronic Engineering or a cognate 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. 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](#).
4. The normal duration of study will be for the degree of Master by full-time study – 24 months.

Mode of Study

5. The programme is available by full-time study only.

Curriculum

All students shall undertake an approved curriculum as follows:

- i. for the Postgraduate Certificate no fewer than 60 credits
- ii. for the Postgraduate Diploma no fewer than 120 credits
- iii. for the degree of MSc no fewer than 240 credits including a project.

Compulsory Modules

Module Code	Module Title	Level	Credits
EE873	Advanced Power and Energy Systems	5	20

EE974	High Voltage Technology and Electromagnetic Compatibility	5	20
EE975	Power Electronics for Energy and Drive Control	5	20
EE976	Power System Economics, Markets and Asset Management	5	20
EE977	Wind Energy and Distributed Energy Resources	5	20
EE986	Assignment and Professional Studies	5	20
Students for the degree of MSc only:			
EE900	MSc Project	5	80

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 40 credits chosen from:

Module Code	Module Title	Level	Credits
EE969	Digital Signal Processing Principles	5	20
EE970	Information Transmission and Security	5	20
EE972	Control Principles	5	20
EE985	Software Engineering	5	20
EE989	Wind Turbine Technology	5	20
EE991	5G Communications Networks	5	20
EE817	Hardware IoT Communication System Design	5	10
EE818	Data Analytics and AI for Energy Systems	5	10
EE891	5G Communications Networks	5	10

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. In order to progress to the second year of the programme, a student must have accumulated no fewer than 120 credits from the programme curriculum.
8. Students who fail to accumulate 120 credits or more in year 1 of the programme will be transferred and considered for an award of Postgraduate Certificate in Electronic and Electrical Engineering or an award of Postgraduate Certificate in Electrical Power and Energy Systems.
9. The final award will be based on performance in the examinations, coursework and the EE900 Project where undertaken.

Award

10. **Degree of MSc in Advanced Electrical Power and Energy Systems:** In order to qualify for the award of the degree of MSc in Advanced Electrical Power and Energy Systems, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 240 credits, of which 80 must have been awarded in respect of the Project EE900.

Alternative Awards

Students who fail to accumulate 240 credits over the programme duration may be considered for one of the following alternative awards:

11. **Degree of MSc in Electrical Power and Energy Systems:** In order to qualify for the award of MSc in Electrical Power and Energy 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 80 must have been awarded in respect of the Project EE900.
12. **Degree of MSc in Electronic and Electrical Engineering:** In order to qualify for the award of MSc in Electronic and Electrical Engineering, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, of which 80 must have been awarded in respect of the Project EE900.
13. **Postgraduate Diploma in Electrical Power and Energy Systems:** In order to qualify for the award of Postgraduate Diploma in Electrical Power and Energy Systems, a candidate must have accumulated no fewer than 120 credits from the taught curriculum.
14. **Postgraduate Diploma in Electronic and Electrical Engineering:** In order to qualify for the award of Postgraduate Diploma in Electronic and Electrical Engineering, a candidate must have accumulated no fewer than 120 credits from the taught curriculum.
15. **Postgraduate Certificate in Electrical Power and Energy Systems:** In order to qualify for the award of Postgraduate Diploma in Electrical Power and Energy Systems, a candidate must have accumulated no fewer than 60 credits from the taught curriculum.
16. **Postgraduate Certificate in Electronic and Electrical Engineering:** In order to qualify for the award of Postgraduate Diploma in Electronic and Electrical Engineering, a candidate must have accumulated no fewer than 60 credits from the taught curriculum.