**Programme Regulations: 2022/23**

**Programme Titles: Postgraduate Certificate in Power Electronics for Sustainable Electric Propulsion**

**Code: 3179F**

*Notes*

*(i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations and examination conventions.*

*(ii) A compulsory module is a module which a student must take.*

*(iii) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.*

## 1. Programme Structure

(a) The programme is available to study in full-time mode.

(b) The period of study for full-time mode shall be 8 months.

(c) The Postgraduate Certificate programme comprises modules to a credit value of 60 with the following minimum requirement: minimum of 40 credits at Level 7 and maximum of 20 credits at Level 6.

(d) Modules will be delivered at Newcastle University (NU) and the University of Nottingham (UNot).

(e) Candidates on the Postgraduate Certificate shall select a minimum of 30 credits to be selected from Newcastle University and a minimum of 30 credits to be selected from Nottingham University.

(f) Candidates on the Postgraduate Certificate shall take optional modules to a value of 60 credits. A minimum of one Level 7 and maximum one Level 6 module for each semester is required, as from the following:

| *Code* | *Descriptive title* | *Total Credits* | *Credits Sem 1* | *Credits Sem 2* | *Credits Sem 3* | *Level* | *Mode* | *Offered by* |
|---|---|---|---|---|---|---|---|---|
| CSC8631 | Data Management and Exploratory Data Analysis | 10 | 10 | | | 7 | Block | NU |
| EEE8147 | Advanced Power Electronics and Applications | 20 | 20 | | | 7 | Block | NU |
| EEE8148 | Electrical Power and Control Project | 20 | 20 | | | 7 | Block | NU |
| EEE8153 | Linear Controller Design & State Space with Matlab Applications | 20 | 20 | | | 7 | Block | NU |
| EEE8159 | Electrical Machines and their applications | 20 | 20 | | | 7 | Block | NU |
| EXT8023 | Advanced AC Drives | 20 | | 20 | | 7 | | UNot |
| EXT8024 | Aerospace Manufacturing | 20 | | 20 | | 7 | | UNot |
| EXT8025 | Introduction to Transport Materials | 20 | | 20 | | 7 | | UNot |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EXT8026 | Power Systems for Aerospace, Marine and Automotive Applications | 20 | | 20 | | 7 | | UNot |
| EXT8027 | Professional Studies B | 10 | | 10 | | 7 | | UNot |
| EXT8028 | Power Electronics Design Solutions and Project Development | 20 | | 20 | | 7 | | UNot |
| MEC8058 | Instrumentation and Drive Systems | 20 | 20 | | | 7 | Block | NU |

Selection is based on students need. Other taught activities are available and require the approval of the CDT Director.

**2. Assessment methods**

Details of the assessment pattern for each module are explained in the module outline.

**3. Progression**

These modules provide the initial taught training year for the EPSRC Centre for Power Electronics.