Joint Degree Programme between Singapore Institute of Technology (SIT) and Newcastle University (NU) leading to a Bachelor of Engineering with Honours in Electrical Power Engineering

Programme Code: 1412U

- 1. The programme consists of 180 credits. One credit at SIT is equivalent to two credits at Newcastle University.
- 2. The programme is taught over eight trimesters.
- 3. On successful completion of the programme students will receive a joint degree award from Newcastle University and Singapore Institute of Technology.
- 4. The joint programme is assessed on an A-F letter grade and associated 5.0 0 grade point scale.
- 5. A D Grade with corresponding grade point of 1.0 is a pass grade.
- 6. Students have a 5-year maximum candidature to complete their programme. Students will have a maximum of one re-sit for examinations/re-submission for continuous assessment and one re-module attempt per module, unless a successful Personal Extenuating Circumstances (PEC) application is made.
- 7. Students should attain at least a 2.0 Cumulative GPA (CGPA) after each trimester to maintain a good academic standing.

After each study trimester and/or consecutive trimester, the joint Board of Examiners will track the academic standing of students with CGPA < 2.0 and issue the students with the following:

- Academic Warning in any study trimester, CGPA < 2.0
- Academic Probation in the next consecutive study trimester, CGPA < 2.0
- Academic Termination in the 3rd consecutive study trimester, CGPA < 2.0
- 8. Students obtaining an F grade or grade point of 0 in any module will be entitled to one resit/resubmission as of right.

If the failed module is a pre-requisite for a higher-level module, the student will not be able to take the higher-level module until the pre-requisite of the previous module has been met.

If the student fails the re-sit, a single re-module attempt will be offered at the next available opportunity.

- 9. Students obtaining an F grade undertaking a re-sit/re-submission attempt will have their grade point capped at 1.00 for the calculation of the CGPA
- 10. Students obtaining a D+/D or F grade have the option to undertake a re-module attempt and the grade point will be capped at 2.00 for the calculation of the CGPA.

For students who have a number of D+/D/F grades the Board of Examiners should review their complete profile for the academic year to ensure that the Board has the full information to allow them to make an informed decision on whether or not to allow progression to the next trimester or require the student to pause their studies or retain in a particular year to improve their academic performance. This will also allow the Board to determine where students have used up their one single re-sit and one single re-module attempt after which they will be unable to progress in the programme.

Candidates will normally undertake the following programme of study:

| Module | Module Title | Module | ECTS | FHEQ | Trimester | Module Lead |
|----------|---------------------------|------------|---------|-------|-----------|-------------|
| Code | | Туре | Credits | Level | | |
| UCS1001 | Critical Thinking & | Compulsory | 4 | N.A | 1 | SIT |
| | Communicating | | | | | |
| UDE1001 | Introduction to Design | Compulsory | 2 | N.A | 1 | SIT |
| | Innovation | | | | | |
| UDC1001 | Digital Competency | Compulsory | 2 | N.A | 1 | SIT |
| | Essentials | | | | | |
| ENG1001 | Engineering Mathematics 1 | Compulsory | 6 | 4 | 1 | SIT |
| ENG1008 | Programming | Compulsory | 6 | 4 | 1 | SIT |
| EPE1304 | Engineering Physics | Compulsory | 6 | 4 | 1 | NU |
| EPE3303A | Integrated Work Study | Compulsory | 0 | N.A | 1 | SIT |
| | Programme (IWSP, Career | | | | | |
| | Skills) | | | | | |
| UDE2001 | Interdisciplinary Design | Compulsory | 4 | N.A | 2 | SIT |
| | Innovation | | | | | |
| ENG1002 | Engineering Mathematics 2 | Compulsory | 6 | 4 | 2 | SIT |
| EPE1301 | Computing Systems | Compulsory | 6 | 4 | 2 | SIT |
| EPE1302 | Circuit Theory & Analysis | Compulsory | 6 | 4 | 2 | NU |
| EPE1303 | Electromagnetics Fields | Compulsory | 6 | 4 | 2 | NU |
| | and Waves | | | | | |
| USI2001 | Social Innovation Project | Compulsory | 3 | N.A | 3 | SIT |
| EPE2301 | Electrical & Magnetics | Compulsory | 6 | 5 | 3 | NU |
| | Systems | | | | | |
| EPE2305 | Analogue Electronics | Compulsory | 6 | 5 | 3 | NU |
| EPE2306 | Group Design | Compulsory | 3 | 5 | 3 | NU |

Year 1

Year 2

| Module | Module Title | Module | ECTS | FHEQ | Trimester | Module Lead |
|----------|--------------------------|------------|---------|-------|-----------|-----------------|
| Code | | Туре | Credits | Level | | |
| EPE2300 | Control Engineering | Compulsory | 6 | 5 | 1 | NU |
| EPE2302 | Digital Electronics | Compulsory | 6 | 5 | 1 | NU |
| EPE2303 | Transmission and | Compulsory | 6 | 5 | 1 | NU |
| | Distribution | | | | | |
| EPE2304 | High Voltage Engineering | Compulsory | 6 | 5 | 1 | NU |
| EPE2307 | Group Project | Compulsory | 6 | 5 | 1 | NU |
| UCM3001 | Change Management | Compulsory | 6 | N.A | 2 | SIT |
| EPE3301 | Power Electronics | Compulsory | 6 | 6 | 2 | NU |
| EPE3302 | State Space Analysis and | Compulsory | 6 | 6 | 2 | NU |
| | Control in Power | | | | | |
| | Engineering | | | | | |
| - | Elective Module 1 | Elective | 6 | 2 | SIT | SIT |
| - | Elective Module 2 | Elective | 6 | 2 | SIT | SIT |
| EPE3303B | Integrated Work Study | Compulsory | 10 | N.A | 3 | Joint |
| | Programme (IWSP, Work | | | | | NU (5 credits) |
| | Attachment) | | | | | SIT (5 credits) |

Year 3

| Module | Module Title | Module | ECTS | FHEQ | Trimester | Module Lead |
|----------|-----------------------|------------|---------|-------|-----------|-----------------|
| Code | | Туре | Credits | Level | | |
| EPE3303B | Integrated Work Study | Compulsory | 10 | N.A | 1 | Joint |
| | Programme (IWSP, Work | | | | | NU (5 credits) |
| | Attachment) | | | | | SIT (5 credits) |
| EPE3305 | Capstone Project | Compulsory | 4 | 6 | 1 | Joint |
| | | | | | | NU (2 credits) |
| | | | | | | SIT (2 credits) |
| EPE3305 | Capstone Project | Compulsory | 6 | 6 | 2 | Joint |
| | | | | | | NU (3 credits) |
| | | | | | | SIT (3 credits) |
| - | Elective Module 3 | Elective | 6 | 6 | 2 | SIT |
| - | Elective Module 4 | Elective | 6 | 6 | 2 | SIT |
| - | Elective Module 5 | Elective | 6 | 6 | 2 | SIT |

Elective Modules

| Module | Module Title | Module | ECTS | FHEQ | Trimester | Module Lead |
|---------|------------------------------|----------|---------|-------|-----------|-------------|
| Code | | Туре | Credits | Level | | |
| EPE3311 | Sustainable Generation | Elective | 6 | 6 | 2 | SIT |
| | and Renewable Energy | | | | | |
| EPE3312 | Electric Propulsion Systems | Elective | 6 | 6 | 2 | SIT |
| EPE3313 | Smart Grids and Electricity | Elective | 6 | 6 | 2 | SIT |
| | Markets | | | | | |
| EPE3314 | Energy Storage Systems | Elective | 6 | 6 | 2 | SIT |
| | and Applications | | | | | |
| EPE3315 | Electrical Installations for | Elective | 6 | 6 | 2 | SIT |
| | Built Environment | | | | | |
| EPE3316 | Transportation Power | Elective | 6 | 6 | 2 | SIT |
| | Supplies | | | | | |
| EPE3317 | Power Systems Operation | Elective | 6 | 6 | 2 | SIT |
| | & Protection | | | | | |
| EPE3318 | Electric Vehicles and | Elective | 6 | 6 | 2 | SIT |
| | Charging Infrastructure | | | | | |

Student will take the Overseas Immersion Programme (OIP) (Non-Credit Bearing) in Year 1, Trimester 3.

1. Assessment methods

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

2. Degree classification

Degree classifications are based upon all 180 credits and the CGPA attained by students at the end of the programme.

All modules contribute the final awards and all years of study contribute equally.

Full details of the classifications and how these are calculated can be found in the SIT-NU Joint Academic Guide.