FACULTY OF ENGINEERING

DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

MECHATRONICS AND AUTOMATION

Master of Science in Mechatronics and Automation
Postgraduate Diploma in Mechatronics and Automation
Postgraduate Certificate in Mechatronics and Automation

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

Admission
1. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Duration of Study
2. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Mode of Study
3. The programmes may be available by full-time or part-time study.

Curriculum
4. 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 from the list of taught modules;
   iii. for the degree of MSc no fewer than 180 credits, including the Postgraduate Individual Project DM932.

Compulsory Modules

Module Code	Module Title	Level	Credits
DM923	Product Modelling and Visualisation	5	10
DMXXX	Digital Manufacturing and Smart Products	5	10
DM942	Manufacturing Automation	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM954	Intelligent Sensing and Reasoning through Machine Learning	5	10
DM986	Mechatronic Systems Design Techniques	5	10
September-intake students will undertake:			
DM931	Postgraduate Group Project	5	40

January-intake students will undertake:			
DM817	Postgraduate Group Project	5	40
Students for the degree of MSc only:			
DM932	Postgraduate Individual Project	5	60

Optional Modules

No fewer than 20 credits chosen from:

Module Code	Module Title	Level	Credits
DM933	Engineering Risk Management	5	10
OR			
DM805	Engineering Risk Management (online)	5	10
DM945	Systems Thinking and Modelling	5	10
OR			
DM808	Introduction to Systems Thinking, Modelling and Optimisation (online)	5	10
EE872	Control Principles 1	5	10
EE972	Control Principles	5	20
EE992	Neural Networks and Deep Learning	5	10
DM948	Advanced Materials and Production Technology	5	10
DM994	Systems Engineering Concepts	5	10
EF931	Project Management	5	10
OR			
DM811	Project Management (online)	5	10
September-intake students only:			
DM937	VIP - Robotic Vehicles for Education and Research (Sem 1)	5	10

Students for the Postgraduate Diploma only, will have the additional optional module:

Module Code	Module Title	Level	Credits

DM815	PGDip Individual Project	5	20

Exceptionally, such other Level 5 modules totalling no more than 20 credits as approved by the Programme Leader.

Not all optional modules on this list will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

Full-time students: permitted to select up to 20 credits of online-delivery modules (applicable to Optional modules ONLY, Compulsory modules must be undertaken on campus.)

Part-time students: permitted to select up to 30 credits of online-delivery modules (applicable to Compulsory and/or Optional modules.)

Examination, Progress and Final Assessment

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

6. The final award will be based on performance in the examinations, coursework and the Postgraduate Individual Project where undertaken.

Award

7. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Mechatronics and Automation, 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 Postgraduate Individual Project DM932.

8. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Mechatronics and Automation, a candidate must have accumulated no fewer than 120 credits from the taught modules of the programme curriculum.

9. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Mechatronics and Automation, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme curriculum.