

This Higher Education Achievement Report incorporates the model developed by the European Commission, Council of Europe and UNESCO/CEPES for the Diploma Supplement.

The purpose of the supplement is to provide sufficient recognition of qualifications (diplomas, degrees, certificates etc). It is designed to provide a description of the nature, level, context and status of the studies that were pursued and successfully completed by the individual named on the original qualifications to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition.

De Montfort University produces HEARs in a digital format. Only HEARs accessed via verify.dmu.ac.uk can be considered valid and verified.

1 INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1	Family name(s)	Malokar
1.2	Given name(s)	Hemant Sanjay
1.3	Date of birth (day/month/year)	24/08/1995
1.4	Student identification number	P2516518 (DMU) 1810685165184 (HESA) ¹

2 INFORMATION IDENTIFYING THE QUALIFICATION

2.1	Name of qualification ²	Master of Science
2.2	Main field(s) of study	Mechatronics - IET Accredited
2.3	Name and status of awarding institution	De Montfort University, a recognised body with taught and research degree awarding powers
2.4	Name and status of institution (if different from 2.3) administering studies	
2.5	Language(s) of instruction/examination:	English

3 INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1	Level of qualification	
3.2	Official length of programme	18 Months
3.3	Access requirement(s)	

4 INFORMATION ON THE CONTENTS AND RESULTS GAINED

¹ HESA, the Higher Education Statistics Agency, the unique national identifying number for students registered at a UK university

² The power to award degrees is regulated by law in the UK.

4.1 Mode of study

Full-Time

4.2 Programme requirements

The field of Mechatronics is recognised as a skill shortage area. Such skills will be critical to the industrial and economic growth of industries in the Western World and developing nations. Graduates from this course can expect enhanced technological skills, which will improve their career prospects. The course aims to take graduates from a single discipline background and develop them into multidisciplinary engineers capable of working in the Mechatronic field, which will meet the demand from industry to produce engineers who can operate in the industry at the highest level. The graduands from this course will attain broad base technological knowledge and skills to integrate the engineering disciplines enabling them to design and develop integrated products and systems, and to operate efficiently in the modern business environment. The first semester of the course involves broadening studies to prepare students from different backgrounds with the required subject specific knowledge; a good grasp of the Mechatronics-based approach, concept, tools and methods for design and development of Mechatronics based products and solutions. There are four modules: (i) Electromechanics ; (ii) Mechatronic Systems: Engineering and Design; (iii) Engineering Business Environment and Energy Studies; and (iv) 'Programming and Software Engineering. The second semester of the course involves advanced studies that deepen the subject specific skills and knowledge of the main tools and methods required by practising Mechatronic engineers. The course will extend the student's knowledge in advanced techniques to master's level, which include developing the analytical skills and an understanding in the use of specialist processes and equipment involved in product development. There are also four modules: (i) Machine Vision, Robotics and Flexible; (ii) Engineering Systems: Dynamics and Control; (iii) Microprocessor Applications and Digital Signal Processing; and (iv) Research Methods. The course also aims to develop the student's ability to engage in research, which is principally represented by the Research Methods module and the substantial Individual Project module undertaken in the second and third semesters. The individual research projects help students to demonstrate their ability to solve real multidisciplinary problems. The projects are often industrially-based, linked to an industrial partner, attached to one of the Mechatronic-related research teams within the faculty or in other collaborating institutions.

4.3 Programme details, and the individual marks and credits achieved

RESULTS

2018/19		Level	Credits	ECTS ³	Weighting	P/F ⁴	Mark ⁵	Attempt ⁶
ENGT5201	Engineering Systems: Dynamics and Control	7	15	7.5		P	71	1
	0001 Other Coursework				30%		56	
	0002 Unseen Examination				70%		77	
ENGT5202	Machine Vision, Robotics and Flexible Automation	7	15	7.5		P	88	1
	0001 Report				100%		88	
ENGT5203	Microprocessor Applications and Digital Signal Processing	7	15	7.5		P	65	1
	0001 Other Coursework				100%		65	
ENGT5214	Study Skills and Research Methods	7	15	7.5		P	60	1
	0001 Online Test				30%		58	
	0002 Essay				70%		61	
Total Credits	60		APEL credits	0		Compensating Credits	0	
2018/19		Level	Credits	ECTS ³	Weighting	P/F ⁴	Mark ⁵	Attempt ⁶
ENGT5101	Electromechanics	7	15	7.5		P	72	1
	0001 Other Coursework				30%		78	
	0002 Unseen Examination				70%		70	
ENGT5102	Mechatronic Systems Engineering and Artificial Intelligence	7	15	7.5		P	63	1
	0001 Other Coursework				75%		63	
	0002 Other Coursework				25%		64	
ENGT5108	Programming and Software Engineering	7	15	7.5		P	55	1
	0001 Practical				100%		55	
ENGT5219	Engineering Business Environment	7	15	7.5		P	50	3
	0001 Essay				30%		51	
	0002 Essay				0%		20	
	0003 Essay				0%		19	
	0004 Essay				70%		69	
Total Credits	60		APEL credits	0		Compensating Credits	0	
2018/19		Level	Credits	ECTS ³	Weighting	P/F ⁴	Mark ⁵	Attempt ⁶
ENGT5301	Individual Project	7	60	30.0		P	66	1
	0001 Report				90%		67	
	0002 Viva				10%		60	
Total Credits	60		APEL credits	0		Compensating Credits	0	

4.4 Grading scheme

Marks are out of a possible 100% with a minimum pass mark of 40%.

³ ECTS - European Credit Transfer System

⁴ P/F - Pass/Fail

⁵ Marks are sometimes shown as one of the following letters: P - Pass, F - Fail, X - Absent/Not awarded

⁶ Indicates the number of attempts the student made at the assessment task

Average for classification:

70% or above First class honours

60-69% Second class honours (upper division)

50-59% Second class honours (lower division)

40-49% Third class honours

4.5 Overall classification of the qualification Merit

Classification average 66

5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study

5.2 Professional status (if applicable)

Not applicable

6 ADDITIONAL INFORMATION

6.1 Additional Information

6.2 Further information sources

Further information can be accessed within the student section of De Montfort University's website, www.dmu.ac.uk.

7 CERTIFICATION OF THE HEAR

7.1 Date of award 11/03/2021

Date of HEAR issue 25/03/2021

7.2 Signature



7.3 Capacity

Executive Director of Student and Academic Services

7.4 Official seal or stamp



8 INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

Description of Higher Education in England, Wales and Northern Ireland

In England, Wales and Northern Ireland⁶, higher education institutions are independent, self-governing bodies active in teaching, research and scholarship. They are established by Royal Charter or legislation and most are part-funded by government.

Higher education (HE) is provided by many different types of institution. In addition to universities and university colleges, whose charters and statutes are made through the Privy Council which advises the Queen on the granting of Royal Charters and incorporation of universities, there are a number of publicly-designated and autonomous institutions within the higher education sector. Publicly funded higher education provision is available in some colleges of further education by the authority of another duly empowered institution. Teaching to prepare students for the award of higher education qualifications can be conducted in any higher education institution and in some further education colleges.

Degree awarding powers and the title 'university'

All universities and many higher education colleges have the legal power to develop their own courses and award their own degrees, as well as determine the conditions on which they are awarded. Some HE colleges and specialist institutions without these powers offer programmes, with varying extents of devolved authority, leading to the degrees of an institution which does have them. All universities in existence before 2005 have the power to award degrees on the basis of completion of taught courses and the power to award research degrees. From 2005, institutions in England and Wales that award only taught degrees ('first' and 'second cycle') and which meet certain numerical criteria, may also be permitted to use the title 'university'. Higher education institutions that award only taught degrees but which do not meet the numerical criteria may apply to use the title 'university college', although not all choose to do so. All of these institutions are subject to the same regulatory quality assurance and funding requirements as universities; and all institutions decide for themselves which students to admit and which staff to appoint. Degrees and other higher education qualifications are legally owned by the awarding institution, not by the state. The names of institutions with their own degree awarding powers ("Recognised Bodies") are available for download at:

<http://www.bis.gov.uk/policies/higher-education/recognised-uk-degrees/recognised-bodies>

Higher education institutions, further education colleges and other organisations able to offer courses leading to a degree of a Recognised Body are listed by the English, Welsh and Northern Irish authorities, and are known as "Listed Bodies". View the list at:

<http://www.bis.gov.uk/policies/higher-education/recognised-uk-degrees/listed-bodies>

Qualifications

The types of qualifications awarded by higher education institutions at sub-degree and undergraduate (first cycle) and postgraduate level (second and third cycles) are described in the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (FHEQ). This also includes qualification descriptors that were developed with the HE sector by the Quality Assurance Agency for Higher Education (QAA - established in 1997 as an independent UK-wide body to monitor the standard of higher education provision - www.qaa.ac.uk). The FHEQ was self-certified as compatible with the Framework for Qualifications of the European Higher Education Area, the qualifications framework adopted as part of the Bologna Process, in February 2009. Foundation degrees, designed to create intermediate awards strongly oriented towards specific employment opportunities, were introduced in 2001. In terms of the European Higher Education Area they are "short cycle" qualifications within the first cycle. The FHEQ is one component of the Credit and Qualifications Framework for Wales (CQFW). The Qualifications and Curriculum Authority (QCA), the Department for Children, Education, Lifelong Learning and Skills, Wales (DCELLS) and the Council for Curriculum Examination and Assessment, Northern Ireland (CCEA) have established the Qualifications and Credit Framework (to replace, in time, the National Qualifications Framework (NQF)). These authorities regulate a number of professional, statutory and other awarding bodies which control VET and general qualifications at all levels. The QCF is also incorporated into the CQFW. There is a close association between the levels of the FHEQ and the NQF, and other frameworks of the UK and Ireland (see 'Qualifications can cross Boundaries'

<http://www.qaa.ac.uk/standardsandquality/otherrefpoints/Qualsboundaries09.pdf>)

Quality Assurance

Academic standards are established and maintained by higher education institutions themselves using an extensive and sophisticated range of shared quality assurance approaches and structures. Standards and quality in institutions are underpinned by the universal use of external examiners, a standard set of indicators and other reports, by the activities of the QAA, and in professional areas by relevant professional, statutory and regulatory bodies. This ensures that institutions meet national expectations described in the FHEQ: subject benchmark statements, the Code of Practice and programme specifications. QAA conducts peer-review based audits and reviews of higher education institutions with the opportunity for subject-based review as the need arises. The accuracy and adequacy of quality-related information published by the higher education institutions is also reviewed. QAA also reviews publicly funded higher education provision in further education colleges.

Credit Systems

Most higher education institutions in England and Northern Ireland belong to one of several credit consortia and some operate local credit accumulation and transfer systems for students moving between programmes and/or institutions. A framework of national guidelines, the Higher Education Credit Framework for England, was launched in 2008. Credit is also an integral part of the CQFW and the QCF. It may be possible for credit awarded in one framework to be recognised by education providers whose qualifications sit within a different framework. HE credit systems in use in England, Wales and Northern Ireland are compatible with the European Credit Transfer System (ECTS) for accumulation and transfers within the European Higher Education Area, and are used to recognise learning gained by students in institutions elsewhere in Europe.

Admission

The most common qualification for entry to higher education is the General Certificate of Education at 'Advanced' (A) level. Other appropriate NQF level 3 qualifications and the kite-marked Access to HE Diploma may also provide entry to HE. Level 3 qualifications in the CQFW, including the Welsh Baccalaureate, also provide entry, as do Scottish Highers, Advanced Highers or qualifications at the same levels of the Scottish Credit and Qualifications Framework. Part-time and mature students may enter HE with these qualifications or alternatives with evidenced equivalent prior formal and/or experiential learning. Institutions will admit students whom they believe to have the potential to complete their programmes successfully.

⁶ The UK has a system of devolved government, including for higher education, to Scotland, to Wales and to Northern Ireland. This description is approved by the High Level Policy Forum which includes representatives of the Department for Business, Innovation and Skills, the Scottish Government, the Welsh Assembly Government, the Higher Education Funding Councils for England, Scotland and Wales, the Quality Assurance Agency (QAA), Universities UK (UUK), GuildHE and the National Recognition Information Centre for the UK (UK NARIC).