UNIVERSITY OF LIVERPOOL

Higher Education Achievement Report (Diploma Supplement)

Name: Minghong Xu
Award: Bachelor of Engineering with Honours
Field of study: Mechatronics and Robotic Systems
Classification: Class I
Award Date: 18th July 2023

The University of Liverpool is a member of the Russell Group, which represents the 24 leading UK universities committed to maintaining the very best research, an outstanding teaching and learning experience and unrivalled links with business and the public sector.

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. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

The University of Liverpool only produces HEARs in a digital format. Only HEARs accessed via https://verify.liverpool.ac.uk can be considered valid and verified.

INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1	**Family name(s):**	Xu
1.2	**Given name(s):**	Minghong
1.3	**Date of birth (day/month/year):**	13th December 2000
1.4	**Student identification number or code:**	201601082
	HESA reference number:*	2111266010822

*HUSID (HESA Unique Student Identifier) is the unique national identifying number for students registered at a UK university. It is defined by HESA, the UK's Higher Education Statistics Agency.

INFORMATION IDENTIFYING THE QUALIFICATION

2.1	**Name of qualification and (if applicable) title conferred:**	Bachelor of Engineering with Honours The power to award degrees is regulated by law in the UK. This degree is part of a dual award, issued conjointly between the University of Liverpool (UK) and Xi'an Jiaotong-Liverpool University (China) .
2.2	**Main field(s) of study for the qualification:**	Mechatronics and Robotic Systems
2.3	**Name and status of awarding institution(s):**	This degree is awarded by the University of Liverpool, a university established by Royal Charter and a recognised body for the award of degrees.
2.4	**Name and status of institution(s) (if different from 2.3) administering studies:**	The holder of this Achievement Record was registered full time on an undergraduate programme delivered at Xi'an Jiaotong-Liverpool University (China) and the University of Liverpool (UK), leading to the University of Liverpool award indicated. Xi'an Jiaotong-Liverpool University is an independent university, recognised by the Chinese Ministry of Education, established in partnership between the University

of Liverpool and Xi'an Jiaotong University.

2.5 Language(s) of instruction/examination: All teaching and assessment that leads to a University of Liverpool award is in English, except for programmes of study involving language studies, where some teaching and assessment is in the relevant language(s).

INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1 Level of qualification: Undergraduate programme assigned to level 6 in the Framework for Higher Education Qualifications (see Section 8 for further details on the UK Higher Education System), and Bologna FQ-EHEA 1st cycle degree compatible

3.2 Official length of programme: Four years

3.3 Access requirement(s): Detailed information regarding admission to the programme is available in the University's Online Prospectus at https://www.liverpool.ac.uk/study/undergraduate/courses

INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study:

2021-2022 - Full time

2022-2023 - Full time

4.2 Programme requirements:

1. An understanding, at BEng level, of the fundamentals of electrical engineering and electronics;

2. Specialised knowledge in mechanics of solids & dynamics, intelligent systems and robotics;

3. Knowledge and skills in mathematics, software engineering, design and management;

4. Transferable skills such as analysis, problem solving, communications, team-working and project management;

5. To provide an intellectually stimulating, rigorous, challenging and rewarding experience for the students on this programme along with an exposure to the state of the art tools used for developing electronic systems;

6. This programme aims at developing graduates competent in the fundamentals of electrical engineering and electronics and to have specialised in the fields of mechatronics and robotic systems;

7. The programme aims to stimulate and develop students transferable skills such as analysis, design, problem solving, communications, team-working and project management;

8. The programme aims to produce graduates with the engineering knowledge and understanding, inter-personal skills and organisational awareness that meet the needs of potential employers, and qualify for accreditation by appropriate engineering institutions.

A Bachelor's degree is normally obtained after three years full-time study or part-time equivalent. Modules totalling at least 90 (45 ECTS) should be at Level 5 in Year 2 and at Level 6 in Year 3.In the Honours Select programmes the modules in the minor subject components should be level 6 in year 3.

4.3 Programme details, and the individual grades/marks/credits obtained:

Programme Start Date: 27th September 2021
Programme End Date: 2nd June 2023

2019-2020 - Xi'an Jiaotong-Liverpool University (China) - Year 0 (Foundation year)

Module Code	Title	Credits	ECTS	Semester	FHEQ Level	Grade	Result
CCT 007	Self-management	6	3	1	3	57	P
CCT 009	Introduction to Literature and Media Culture	6	3	1	3	58	P
EAP 025	Introduction to EAP (Standard Pathway)	22.5	11.25	1	3	48	P
LAN 005	Transition to University and Beyond	7.5	3.75	1	3	71	P
MTH 017	Linear Algebra for Mathematical Science	15	7.5	1	3	68	P
MTH 019	Calculus for Business	15	7.5	1	3	62	P
PHE 001	Physical Education 1	3	1.5	1	3	75	P
CCT 008	Ideological and Moral Cultivation and Basis of Law	6	3	2	3	69	P
CCT 010	The Modernization Process of China	6	3	2	3	76	P
EAP 028	English for Academic Purposes for Industrial Technology I	22.5	11.25	2	3	67	P
LAN 006	Transition to Intercultural Learning	7.5	3.75	2	3	82	P
MTH 008	Multivariable Calculus (Science and Engineering)	15	7.5	2	3	54	P
PHE 002	Physical Education 2	3	1.5	2	3	67	P
PHY 002	Physics	15	7.5	2	3	40	P
	Credits Obtained	**150**					

2020-2021 - Xi'an Jiaotong-Liverpool University (China) - Year 1

Module Code	Title	Credits	ECTS	Semester	FHEQ Level	Grade	Result
CEN 103	Solids and Structures	15	7.5	1	4	46	P
CPT 109	C Programming and Software Engineering I	15	7.5	1	4	75	P
EEE 103	Electrical Circuits I	15	7.5	1	4	90	P
EEE 109	Electronic Circuits	15	7.5	1	4	44	P
MTH 101	Engineering Mathematics I	15	7.5	1	4	63	P
EEE 104	Digital Electronics I	7.5	3.75	2	4	67	P
MEC 104	Experimental, Computer Skills and Sustainability	15	7.5	2	4	73	P
MEC 106	Engineering Drawing	7.5	3.75	2	4	96	P
MEC 108	Introduction to Mechatronics	7.5	3.75	2	4	48	P
MTH 102	Engineering Mathematics (II)	7.5	3.75	2	4	73	P
EAP 111	English Language and Study Skills III for Engineering	30	15	3	4	57	P
	Credits Obtained	**150**					

2021-2022 - The University of Liverpool (UK) - Year 2

Module Code	Title	Credits	ECTS	Semester	FHEQ Level	Grade	Result
ELEC 209	Electrical Circuits and Power Systems	15	7.5	1	5	63	P
ELEC 270	Signals and Systems	15	7.5	1	5	81	P
MATH 282	Field Theory, Partial Differential Equations and Methods of Solution	7.5	3.75	1	5	91	P
ELEC 211	Digital Electronics and Microprocessor Systems	15	7.5	2	5	75	P
ELEC 271	Electronic Circuits And Systems	15	7.5	2	5	48	P
ELEC 207	Instrumentation and Control	15	7.5	3	5	65	P
ELEC 222	Project, Problem Solving And Industrial Awareness	7.5	3.75	3	5	76	P
ELEC 230	Robotic Systems	15	7.5	3	5	71	P

MECH 215	Dynamic Systems	15	7.5	3	5	82	P
	Credits Obtained	**120**					

2022-2023 - The University of Liverpool (UK) - Year 3

Module Code	Title	Credits	ECTS	Semester	FHEQ Level	Grade	Result
ELEC 331	Drives	7.5	3.75	1	6	62	P
ELEC 352	Engineering Management & Entrepreneurial Skills	7.5	3.75	1	6	78	P
ELEC 370	Embedded Computer Systems	15	7.5	1	6	75	P
ELEC 303	Digital Control and Optimisation	15	7.5	2	6	67	P
MNFG 309	Industrial Robotics & Automated Assembly	15	7.5	2	6	77	P
ELEC 330	Robotic Systems II	15	7.5	3	6	72	P
ELEC 340	BENG Project	30	15	3	6	74	P
ELEC 373	Digital System Design	15	7.5	3	6	63	P
	Credits Obtained	**120**					

* - Indicates a mark obtained at a second or subsequent sitting
E - Indicates Extenuating Circumstances

4.4 Module grading scheme and, if available, grade distribution guidance:

Grade (100 point scale)	
70 to 100	First Class
60 to 69	Upper second class (2.1)
50 to 59	Lower second class (2.2)
40 to 49	3rd Class
35 to 39	Narrow Fail (but compensation may be allowed in accordance with University's rules)
Less than 40	Fail

4.5 Overall classification of the qualification (in original language):

Class I

Information about the degree classification methodology used at the University of Liverpool is available at https://www.liverpool.ac.uk/aqsd/academic-codes-of-practice/code-of-practice-on-assessment/

INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study: Attainment of an undergraduate degree may entitle access to postgraduate study (Bologna FQ-EHEA 2nd or 3rd cycle/level 7 or 8 qualifications or equivalent) and/or professional career opportunities.

5.2 Professional status (if applicable):

ADDITIONAL INFORMATION

6.1 This section provides details of extra-curricular student awards and activities that represent achievement, and have been verified by the University of Liverpool. Details of prizes gained whilst at the University are also listed here. Please note that the number of extra-curricular activities which the University and the Liverpool Guild of Students are currently able to verify is limited. Students may therefore have undertaken additional activities which have contributed significantly to their personal and professional development. They will be encouraged to record these in other documentation.

Additional Awards (Accredited Performance in Non-Academic Contexts):

Term: 2022-23
Award: Head of Department Engineering Ethics Prize
Description: Awarded to the student or team who demonstrate rigour and insight in their analysis or application of ethical principles.

6.2 Further information sources: Further information concerning the University of Liverpool may be obtained from the University's website (www.liverpool.ac.uk). A description of the UK higher education system may be obtained from the UCAS website (https://www.ucas.com/ucas/undergraduate/getting-started/what-higher-education).

CERTIFICATION OF THE HEAR

7.1 Date: 3rd August 2023

7.2 Award Date: 18th July 2023

7.3 Signature:

7.4 Capacity: Director of Student Experience & Enhancement

7.5 Official Seal:

INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

8.1 You will find further context on the awards we provide and the information on the national higher education system at the following webpage: https://www.liverpool.ac.uk/graduation/official-documentation/sharing-your-hear/hear-content/