LINCOLN UNIVERSITY COLLEGE
DKU016 (B)

2022 SETARA COMPETITIVE UNIVERSITY COLLEGE

ISO 9001:2015 Certified

Bachelor of Mechatronics Engineering Technology with Honours

(N/523/6/0321) (03/29) (MQA/PA 15090)

PROGRAMME DESCRIPTION

Bachelor of Mechatronics Engineering Technology with Honours programme is ETAC accredited and registered at MQA. The duration of full-time study generally takes 4 years to complete. Students are required to complete 142 credit hours of courses that includes Engineering Technology core, Humanities, Technopreneur, Machine Learning, Artificial Intelligence Final Year Project, and Industrial Training. To educate graduates for the innovative design solutions that will be needed of them, the degree takes a systems approach, examining the entire system and breaking it down into subsystems and their constituent components. Graduate from the program can find their career path in mechatronics approach in production and manufacturing, holistic problem solving in a mixed discipline of engineering, simulation and analysis of digital manufacturing and emerging technology in production planning and manufacturing automation.

Provisional Accreditation by Engineering Technology Accreditation Council (ETAC).

PROGRAMME AIM

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

Develop Product and applications in the field of Automation and Mechatronics and be able to use Engineering tools that will Enhance their Productivity.

Capable of communicating and managing effectively in diverse areas of Mechatronics Engineering.

Practicing professional ethics, life-long learning, and sustainable development for the betterment of society.

PROGRAMME OUTCOMES (PO)

The programme Bachelor of Mechatronics Engineering Technology with Honours follows the 12 ETAC domains to produce graduates who can:

Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to defined and applied engineering procedures, processes, systems or methodologies in the field of Mechatronics engineering technology.

Problem analysis: Identify, formulate, research literature and analyse broadly-defined engineering problems reaching substantiated conclusions using analytical tools appropriate to Mechatronics engineering technology.

Design/ development of solutions: Design solutions for broadly-defined mechatronics engineering technology problems and contribute to the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

Investigation: Conduct investigations of broadly-defined mechatronics engineering technology problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions;

Modern Tool Usage: Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly-defined engineering problems, with an understanding of the limitations.

Call us :

1 300 880 111 (Malaysia)
+603 78063478 (International)

Web : www.lincoln.edu.my | E-mail : info@lincoln.edu.my

Wisma Lincoln, No. 12-18, Jalan SS 6/12, 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia.

No. 2, Jalan Stadium, SS 7/15, Kelana Jaya, 47301, Petaling Jaya, Selangor Darul Ehsan, Malaysia.

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The Engineer and Society: Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to mechatronics engineering technology practice and solutions to broadly-defined engineering problems.

Environment and Sustainability: Understand the impact of mechatronics engineering technology solutions of broadly-defined engineering problems in societal and environmental context and demonstrate knowledge of and need for sustainable development.

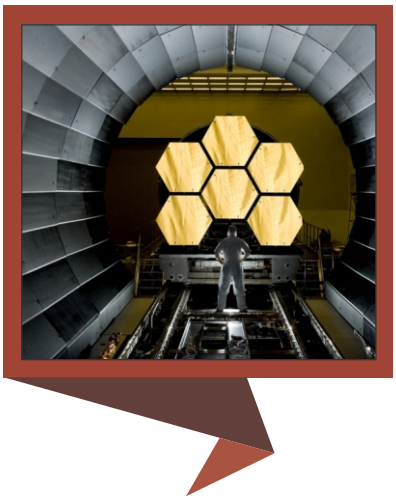
Ethics: Understand and commit to professional ethics and responsibilities and norms of engineering technology practice.

Individual and Teamwork: Function effectively as an individual, and as a member or leader in diverse technical teams.

CAREER OPPORTUNITIES

Students who obtain a Bachelor of Mechatronics Engineering Technology with Honours will have the knowledge and abilities needed to occupy a variety of career titles that offer well and are in high demand. The following is a list of the most common job titles held by persons with a mechatronics degree:

- Mechatronics Engineer
- Robotics Engineer
- Automation Engineer
- Mechanical Engineer
- Electronics Engineer
- Controls Engineer
- Electromechanical Engineer



PROGRAMME DURATION

Duration : 48 Months. (Full Time)

INTAKE AND ENTRY REQUIREMENTS

January, July, October

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i. Passed Sijil Tinggi Persekolahan Malaysia or equivalent with a minimum of a full pass or grade C (CGPA 2.0) in Mathematics and one (1) Science-related subject and pass in Sijil Pelajaran Malaysia or equivalent with at least a pass in English; or
ii. Passed Diploma in Engineering / Engineering Technology (Level 4 Malaysian Qualifications Framework, MQF) in relevant areas of the PPT that are recognized by the government of Malaysia or equivalent with minimum CGPA 2.0.

For international students, a Test of English as a Foreign Language (TOEFL) score of 500 or an International English Language Testing System (IELTS) score of 5.0 or equivalent is required. If the student does not meet this requirement, the PPT offers proficiency courses in English to ensure student mastery is sufficient to meet the program requirements. This is done through the evaluation process.

LIST OF COURSE/MODULE OFFERED IN THE PROGRAMME

Sl.No.	MQA Subject Code	Subject Name	Credits
1	BET 1113	Engineering Mathematics 1	3
2	BMR 1123	Computer Programming	3
3	BMR 1133	Electrical Circuit Analysis	3
4	ENG 613	English	3
5	TBC	Philosophy and Current issues course (Local Students) Malay Language Communication 2 (International Students)	3
6	BET 1213	Engineering Mathematics 2	3
7	BMR 1223	Electronic Devices 1	3
8	BMR 1232	Engineering Materials	2
9	BMR 1242	Technical Drawing and CAD	2

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10	BMR 1253	Fluid Mechanics	3
11	TBC	Appreciation of Ethics and Civilizations	3
12	BMR 1313	Electronic Devices 2	3
13	BMR 1323	Principles of Instrumentation and Measurement	3
14	BMR 1332	Dynamics	2
15	BMR 2113	Signal and Systems	3
16	BMR 2123	Sensors and Transducer	3
17	BMR 2133	Electrical Machines and Controls	3
18	BET 2143	Engineering Mathematics 3	3
19	BMR 2152	Machine Design	2
20	BMR 2162	Microcontroller Technology	2
21	MPU 3232	Leadership Skills and Human Relations	2
22	BMR 2212	Basic Engineering Metrology	2
23	BMR 2223	Introduction to Control System	3

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24	BMR 2232	Mechanics of Machines	2
25	BMR 2242	Manufacturing Process (Basic Metal Workshop)	2
26	BMR 2253	Digital Systems	3
27	BMR 2262	Basic Turning and Milling	2
28	MPU 3342	Malaysian Government and Public Policy	2
29	BMR 2313	Engineer in Society	3
30	BMR 2323	PLC and Automation	3
31	BMR 2333	Pneumatics and Hydraulic Technology	3
32	BMR 3113	Thermodynamics and Heat Transfer	3
33	BMR 3123	Integrated Design Project	3
34	BMR 3133	Mechatronic System Design	3

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35	BMR 3143	Control System Engineering	3
36	BMR 3153	Industrial Robotics	3
37	BET 3163	Research Methodology	3
38	BMR 3213	Actuators and Drives	3
39	BMR 3223	Final Year Project I	3
40	BMR 3233	Electromagnetic Field Theory	3
41	MPU 3412	Community Service	2
42	**Elective I**		
	BMR 3253	Internet of Things	3
	BMR 3263	Digital Control System	3
	BMR 3273	Vibration Analysis	3
	BMR 3283	Machine Learning	3
43	BET 3312	Digital Technopreneur	2
44	BMR 3323	Robotic Control	3
	Elective II		
	BMR 3333	Data Communication and Networking	3

45	BMR 3343	Embedded System Design	3
	BMR 3353	Advanced Manufacturing System	3
	BMR 3363	Autonomous Robot	3
46	BMR 4115	Final Year Project II	5
47	**Elective III**		
	BMR 4123	Machine Vision	3
	BMR 4133	Computer Aided Design and Manufacturing (CAD/CAM)	3
	BMR 4143	Artificial Intelligence	3
	BMR 4153	Swarming Robotic	3
48	BMR 4212	Industrial Training	12