

Module Code	SS-3406		
Module Title	Introduction to Robotics		
Degree/Diploma	Undergraduate GenNEXT Bachelor degree		
Type of Module	Breadth		
Modular Credits	4	Total Student Workload	10 hours/week
		Contact Hours	4 hours/week
Pre-requisite	None		
Anti-requisite	None		
Aims			
To introduce to the students the basic concepts of robotics, such as controller, sensors and actuators. It is intended to make a student “robotics literate”.			
Learning Outcomes			
<i>On successful completion of this module, a student will be able to:</i>			
Lower order:	5%	<ul style="list-style-type: none"> - explain the basic components of a robot - describes the different areas and applications of robotics 	
Middle order:	5%	<ul style="list-style-type: none"> - design robots for simple applications 	
Higher order:	90%	<ul style="list-style-type: none"> - write microcontroller programs for robots - determine their future direction in robotic research, if they wish 	
Module Content			
<ul style="list-style-type: none"> - Introduction, sensors, robot movement, actuators, effectors, feedback control, microcontroller, control architectures, robot learning - Practical work will be mainly in the area of mobile robot 			
Assessment	Formative assessment	Interactive Quizzes and Feedback	
	Summative assessment	Examination: 0% Coursework: 100% <ul style="list-style-type: none"> - 2 class tests (20%) - 2 written assignments (20%) - 3 lab exercises (30%) - 1 project (30%) 	