

Sekolah: SEKOLAH KEJURUTERAAN ELEKTRIK	
Nama Matapelajaran: Makmal Kejuruteraan Elektrik	Semakan : 1
Kod Matapelajaran : SKEM 3742	Tarikh Keluaran : 2020
	Pindaan Terakhir : 2020
	No. Prosedur : PK-UTM-FKE-(0)-10



SKEM 3742

SEKOLAH KEJURUTERAAN ELEKTRIK FAKULTI KEJURUTERAAN UNIVERSITI TEKNOLOGI MALAYSIA KAMPUS SKUDAI JOHOR

ROBOTICS LAB STUDENT PACK

INDUSTRIAL ROBOTS

Disediakan oleh Nama : Dr. Mohamad Amir Shamsudin En. Ahmad Ridhwan Wahab Dr. Mohamad Shukri Zainal Abidin PM Ir. Dr. Mohd Ridzuan Ahmad Dr. Mohamad Hafis Izran Ishak Tandatangan : Cop : Tarikh : 27 April 2020	Disahkan oleh : Pengarah Nama : P.M. Dr. Norhaliza Hj. Abd Wahab Tandatangan : Cop : Tarikh :
--	--

1.	Project Guide:																									
	(a) Problem-solving Timeline																									
	<table><tr><th>Activities</th><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th></tr><tr><td>Understanding/Brainstorming/Identifying/Proposal/Testing</td><td></td><td></td><td></td><td></td></tr><tr><td>Testing and evaluation for handling industrial robot/Demonstration.</td><td></td><td></td><td></td><td></td></tr><tr><td>Testing and evaluation for handling industrial robot/Demonstration/Result analysis.</td><td></td><td></td><td></td><td></td></tr><tr><td>Report and peer review</td><td></td><td></td><td></td><td></td></tr></table>	Activities	Week 1	Week 2	Week 3	Week 4	Understanding/Brainstorming/Identifying/Proposal/Testing					Testing and evaluation for handling industrial robot/Demonstration.					Testing and evaluation for handling industrial robot/Demonstration/Result analysis.					Report and peer review				
Activities	Week 1	Week 2	Week 3	Week 4																						
Understanding/Brainstorming/Identifying/Proposal/Testing																										
Testing and evaluation for handling industrial robot/Demonstration.																										
Testing and evaluation for handling industrial robot/Demonstration/Result analysis.																										
Report and peer review																										
	(b) Student guidelines																									
	- Each group will work on ABB robot for the given task by using RobotStudio® software. Please download and install the software. - Each group can follow the exercises provided in additional materials. - Facilitator will give the different pattern of initial boxes location to each group.																									
	(c) Questions that can help you tackle the problem																									
	- What is the Hanoi Tower problem? - How to program an industrial robot? - What is trajectory planning? - What is a teach pendant?																									
	(d) Report Writing																									
	Other than the general guide specified by the Laboratory Coordinator, your report for this laboratory must also include:-																									
	- Abstract, introduction, procedures, data and result, discussion, conclusion, and references - Program listing of your design																									
2.	Equipments List:																									
	RobotStudio® software																									
3.	Components List:																									
	- Work pieces to perform the Hanoi Tower problem - Tool libraries to create the lab environment consists of the platform, the gripper, table etc.																									
4.	Additional Resources (available at the lab):																									
	- ABB RobotStudio® software (can be downloaded from https://new.abb.com/products/robotics/robotstudio). - Additional Materials – RobotStudio® Pick and Place Exercises, RobotStudio Courseware 5.60 and tool libraries (can be downloaded from https://tinyurl.com/ybn9du9u).																									