Course ENG4406 - 09s2: Robotics and Machine Vision

Course specification

Course Materials

'Refresh' to be sure that you are seeing the latest version.
After each lecture, I try to add a brief reminder of what we did in a Moodle forum.
Externals should find it a useful way to keep in touch.

	Introduction to the course		
Week	**Module**	**Activity/Reading**	**Assessment**
1 23 – 27 Jul	Module 1: Introduction to State Space	Read Understanding matrices Computer exercises 1	
2 30July – 3 Aug	Module 1 continued. Second order systems including Phase-plane	Commence Assignt 1 Read More on matrices Bicycle problem and solution Computer exercises 2	
3 6 – 10 Aug	Module 2: Practical Computer Control	Computer exercises 3	
4 13 – 17 Aug	Module 3: Vision Fundamentals	Computer exercises 4	
5 20 – 24 Aug	Module 4: Vision-Based Control Case Study		
6 27-31 Aug	Module 5: Amplifiers and further Techniques		
7 3 – 7 Sep	Module 6: Gears, motors and mechanisms	Revise Matrices and More on matrices, Read Vectors, transformations	Assignt 1 Due: 31 August
8 10 – 14 Sep	Module 7. Three dimensional motion	Read Orientation Commence Assignt 2	

9 - 10 17 - 28 Sep			
11 1 - 5 Oct	**Module 8: Kinematic Chains**		
12 8 – 12 Oct	**Module 9: Robot dynamics**		**Assignt 2** **Due: 5 Oct**
13 15 – 19 Oct	**Module 10: Simulating a robot**	**Exam advice** **Further reading** (optional)	
14 22 – 26 Oct	**REVISION**		
15 29 Oct – 2 Nov	**REVISION**		
16-17 5 – 16 Nov	**EXAMINATION PERIOD** **(3 Hour Closed)**		