Technology and Context of Robotics and Autonomous Systems Assignment 1: Report on Seminars

Write a report on each of the research topics attended in the seminar series on Technologies and Context of Robotics and Autonomous Systems (RAS). This should be about 100 words for each of the seminars.

Report on each field of RAS covered in the TCRAS seminar series:

- 1. Pick 2 seminars (usually 25 mins or a lab demo) each week from week 2: one from UoB; one from UWE
- 2. Write approximately 100 words split equally between briefly summarizing the <u>research area</u> and a <u>research challenge</u> within that area.
- 3. Reflect on the content covered in the seminar to summarize the research area and challenge.
- 4. You do not need to provide references, but you should identify each report by the seminar title and lecturer. Space the reports out neatly.
- 5. List the reports in the order of the seminars attended.
- 6. If you do not attend a seminar, you should not write a report for that seminar.

I strongly recommend that you write each summary either in the lecture or immediately after. Leaving the entire assignment to near the end of term will result in a poorer report and lower marks.

Deadline: 11:59pm Friday 15 December

Submit your PDF report on attendance via UoB SAFE.

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Marking scheme

Attendance (%) X quality of original reports (%)

Plagiarism will be taken seriously.

If you do not attend a seminar session, you should not write a report.

I will check seminar attendance, and will deduct marks accordingly (you will lose more marks if you claimed attendance but did not actually go!)

An example

Human replicants (Phillip Dick): The research area of human replication seeks to build robots that mimic humans in form and function. A replicant must possess a degree of self-awareness, but may not be aware of its own fabricated nature. Where possible, capabilities of the replicant can exceed the human norm, but not in a manner that allows the replicant or human observers to easily infer that the replicant is an artificial device.

Research challenge: Human replicants have a longevity of only 4 years, although 'the light that burns twice as bright burns half as long'. A significant research challenge is to extend a replicant's longevity while still retaining its functional capabilities.