

## COMP 421 – Artificial Intelligence

### Assignment 1

Deadline: Feb 23, 2023 (No late submission is allowed)

Submission Instructions:

1. The assignment should be prepared and submitted in .docx format. The filename should be in the format of "P1234567-XXX-Assignment1", where P1234567 is the student number, and XXX is the student name.
2. A zero mark will be given if you copy someone else's work or you let someone copy your work!

1. Identify the characteristics for the task environment of a soccer robot. (18 marks)

Fully observable or partially observable?

Deterministic or stochastic?

Episodic or sequential?

Static or dynamic?

Discrete or continuous?

Single agent or multi-agent?

2. Apply canny edge detection on the following image. The edge should be 1 pixel wide and please explain each step and show each step's result(82 marks)

