University of Lincoln
School of Engineering and Physical Sciences
PGT Criterion Reference Grid 2024-2025

CMP9764 Advanced Robotics Assessment Item 2 2024-2025

Learning Outcome	Criterion	Pass	Merit	Distinction
[LO1] Analyse the "state of the art" in advanced robotics, including an understanding of the mathematical principles and current applications;	C1: Report – Literature review (35%)	An account of relevant work in the literature is provided and correctly referenced.	Relevant work in the literature is identified and contextualised with respect to the problem domain chosen. This is correctly referenced.	A comprehensive body of work is correctly referenced, contextualised with respect to the chosen problem domain, and critically appraised.
[LO2] Critically appraise a range of advanced concepts for navigation, state estimation, planning, learning, and control, identifying their strengths and weaknesses, and selecting appropriate methods to serve particular roles;	C2: Report – Introduction, discussion, conclusion, and logical structure of overall report (30%)	A suitable report structure has been used that describes the work conducted in an appropriate manner. The aim and motivation is clear, and the discussion and conclusion is coherent.	An appropriate report structure is applied that clearly describes the work conducted, making appropriate use of figures where relevant. The aim and motivation for the chosen problem domain is clear and justified, and the discussion and conclusion are appropriate given both the literature reviewed, and results obtained. Overall, the report is logically coherent.	The report structure supports a clear description of the work conducted, making appropriate use of figures. The aim and motivation for the innovative chosen problem domain is clear and justified, and the discussion and conclusion are comprehensive given both the literature reviewed, and results obtained. Overall, the report is logically coherent and presents a comprehensive and compelling argument in relation to the current state of the art as presented in the literature.
[LO3] Design a software component for solving complex robot control problems for mobile robotics or robotic manipulators.	C3: Report – Simulation description, metrics, results, and analysis (35%)	A suitable problem domain and simulation is adequately described, and some findings are presented. It is evident that the simulation presented works, and that some analysis of performance/behaviour has been presented.	An innovative problem domain and simulation has been clearly described, with a set of quantitative results provided and analysed, including some comparisons of performance/behaviour.	An innovative problem domain and simulation has been comprehensively described and justified. A set of quantitative results has been justified and presented, and an appropriate comparative analysis has been conducted.

Weighting is 50% of the module