



Discipline of  
**Computer Science & Engineering**

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### Assignment 1 - Executive M.Tech(AI)

Course: Artificial Intelligence

Date: 01 July 2023

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1. Submission deadline: 15th July 2023
2. Submission Link: <https://forms.gle/yePgnvtejjZVv41r7>
3. E-mail (or any other method) submission will NOT be accepted.
4. Penalties for late assignment submission — 10% of the total marks awarded will be deducted for each day.
5. . Use the following nomenclature to submit the pdf file: Role number\_Assignment1.pdf (Example 2022PAI9001\_Assignment1.pdf). (penalties of 5 marks for a wrong file name or format submission )

1. (5 points) Write a problem that you believe can be solved using AI.

[Note: You have to write the problem description only; no need to write the problem's solution. Word limit: max 100 words ]

2. (5 points) Consider a scenario where you are designing an autonomous delivery robot to deliver packages to different Geo locations in a city. The robot must be able to navigate through different terrain, interact with humans in a socially acceptable manner, and safely deliver packages to the required locations. Design a basic agent-based AI system that can control the robot's behavior, taking into account its sensors and actuators. Include a discussion of the different components of the AI system. Also, specify the environment, actuators, and performance metric. (Maximum word limit - 200 words, Preferably a Pictorial Representation of your proposed approach)