AI (Artificial Intelligence) Robotics and Automation
AIDI1012 - 2022 Winter
Deadline: Wednesday 20/04/2022
Complete and submit Jetson Nano project (50% of final mark)
Term Project Instruction
Jetson NANO Developer Kit

The final project for any individual student or as a group must include the following sections:

- **First part of submission (out of 100)**
→ The basic and acceptable level the project must cover: **(50-65 out of 100)**
  - o Either **Road Following**
  - o Or **Object Following**
  - o See
    - ▪ "[jetbot/notebooks at master · NVIDIA-AI-IOT/jetbot · GitHub](#)"
    - ▪ "[(8) Jetson AI Fundamentals - S2E4 - JetBot Road Following - YouTube](#)"

→ The advanced level of the project must cover: **(66-80 out of 100)**
  - o Both **Road and Object Following**
  - o See
    - ▪ [Jetbot Road Following and Collision Avoidance](#)

→ The most advanced level of the project must cover: **(>80 out of 100)**
  - o Running two or more Jetbot to follow road, object and avoiding collision
    - ▪ [JetBot: Road Following + Collision Avoidance](#)
    - ▪ [Combined Jetbots](#)
    - ▪ [Nvidia JetBot - Jetson Nano Collision Avoidance - March 2019](#)

So, more complicated training will get higher marks

The presentation of your project as a final product must include the following elements:

- **Second part of submission (out of 20)**
- ➢ Maximum 5 minutes of recording (please explain your work while you are recording)
  - o Jetbot Preparation
  - o Data collection
  - o Jetbot training step
  - o And while the Jetbot is running following the training algorithm to follow road or object (As mentioned in first section of the Project Instruction)
  - o The presentation could be held on the last day of the class volunteering on Wednesday 20/04/2022 as well as submitting your record, slides, and codes **(10 points for the final mark)**

- ➢ Maximum 3 slides in PowerPoints to explain
  - o About issues, difficulties you have been involved with
  - o How you resolved them
  - o How you can improve your Jetbot training

- **Third part of submission (out of 20)**
- ❖ Submit All the coding files you used either in Jupyter Notebook (.ipynb) or Python (.py) format

Out of 140 + 10 for class presentation = 50% of your final mark

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