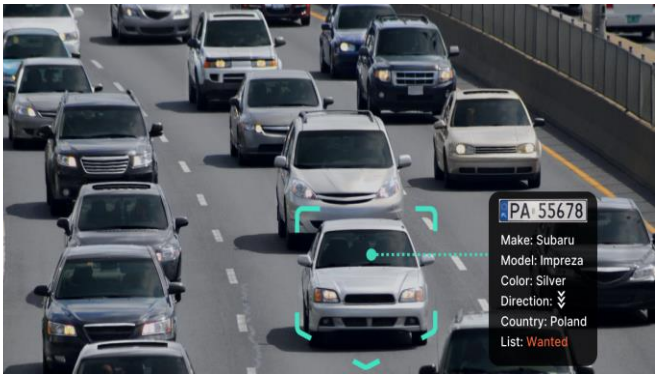

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AI MODULE

1. **Project Overview**

The idea of the project is to provide a solution to detect and recognize the car plate without any noise coming with the plate by implementing the concepts covered during the course. Be creative and define the scope of what you can do without any limit. Anything that satisfies the requirements is fine (refer to Section 4.0: Project Requirements). The scope and contents of the task chosen will be determined by you.

2. **Objective of the project**

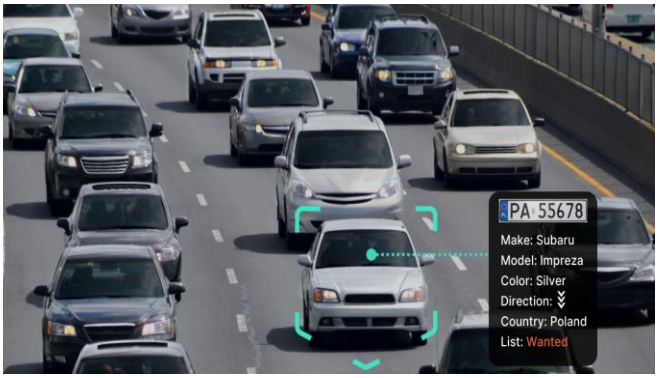
Equip students with practical knowledge about image processing, computer vision, and pattern recognition in programming and computing. The focus will not be on teaching all the details of programming under specific platforms, but rather on providing both a high-level understanding and practical implementation experience of reusable algorithms and coding techniques that apply to the development of applications across different platforms and genres.

3. **Learning Outcomes**

- ✓ Demonstrate a working knowledge and understanding of image processing, computer vision, and pattern recognition algorithms.
- ✓ Use different approaches to edit/extract and manipulate images using the existing algorithms.
- ✓ Identify and adapt appropriate algorithms and software to judge resource requirements for an imaging problem.
- ✓ Design and build appropriate systems for problems requiring an imaging solution and pattern recognition.

4. **Project requirement**

A sequence of images capturing a moving car while accessing the gate all day long is given. Your goal is to recognize the license plate for any given images of the same camera for both taxi and normal cars. Finally, we will give you some new testing images to evaluate the accuracy of the proposed techniques. The challenge of the proposed project is to be able to recognize the plate and clear all the related noises



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5. **PROJECT MEMBER**

3- 5 students per group

6. **DELIVERABLES**

- ✓ A prototype using C++ programming language for image-related applications illustrated in Sections 1.0 and 4.0
- ✓ PowerPoint presentation meeting the assessment criteria

7. **Assessment**

Objectives of LPR	5%
Problem domain	5%
Description and justification of the proposed algorithms.	10%
Description and discussion of license plate recognition algorithms	20%
Critical analysis and discussion	10%
Experimental results	10%
Technicality: Implementation of LPR system	40%

Contact Person

Hamam Mokayed: homammo@gmail.com