

Algorithms and Relevant Projects

(Artificial Intelligence Project)



Session: 2022 – 2026

Submitted by:

Shehroz Ahmad	2022-CS-157
Muhammad Saad Akmal	2022-CS-148

Supervised by:

Sir Samyan Qayyum Wahla

Department of Computer Science
University of Engineering and Technology
Lahore Pakistan

Relevant Projects:

"AI powered illegal parking detection" by **"AllgoVision"** is the most relevant project to detect illegal parking. It detects vehicles parking/stopping spots beyond a specified. It monitors, detects and alerts against parking violation by generating alarms in real time. Alarms are triggered for all types of transportations that are parked illegally. Additionally, it enables the law enforcement officials to take corrective measures against violating vehicles and help optimize traffic.

"AI-Based Analytics for Hawkers Identification in Video Surveillance for Smart Community" by **"Universiti Tun Hussein Onn Malaysia"** is most relevant to detect the vendors. This addresses the key issues in maintain the urban aesthetics, waste management, understanding the user preferences and to improve the quality of life for residents and visitors. This system detects the hawkers in real time that will allow the authorities to take action against illegal hawkers more efficiently and effectively.

Algorithms:

The algorithm used by the **"AI powered illegal parking detection"** was **Deep learning**. The use of deep learning will allow the system to percept like human. Advance deep learning methods will allow the system to asses large datasets of stationary and moving vehicles.

The algorithm used by **"AI-Based Analytics for Hawkers Identification in Video Surveillance for Smart Community"** were **You Only Look Once (YOLO) algorithm, utilizing Convolutional Neural Networks (CNN)**. The YOLOv5 algorithm was trained with a custom image dataset collected from the same camera along the street in the city area to detect five classes.