

ABSTRACT

IMPLEMENTATION OF YOLOv9 ALGORITHM FOR NUMBER DETECTION IN THE IMAGE OF KWH METERS AT PLAZA XYZ TENANT

Muhammad Mughni Firdaus¹⁾ Ida Nurhaida²⁾

¹⁾ Informatics Program Departemen, Universitas Pembangunan Jaya

²⁾ Lecturer of Informatics Departemen, Universitas Pembangunan Jaya

The YOLOv9 algorithm has proven effective in detecting objects in various image processing applications. In this study, the YOLOv9 algorithm was applied to detect numbers on kWh meters at Plaza XYZ, which still relies on manual recording for electricity consumption by tenants. Manual recording is prone to issues, particularly errors in the data recording process of the kWh meters. To address this problem, the developed system allows technicians to simply input the tenant's name, the kWh meter serial number, and upload an image or picture of the kWh meter. The system then automatically detects and extracts the kWh numbers from the image using the YOLOv9 and EasyOCR models. The detected data can then be exported into an Excel format, simplifying further recording and analysis. The results of the study show that the developed system is able to detect and read the kWh numbers with an accuracy rate of 89.8%.

Keywords : YOLOv9, EasyOCR, Electricity Consumption Recording.

Libraries :

Publication Years : 2020 - 2024