ABSTRACT

Automated gates currently have a number of drawbacks, such as reliance on access cards, gatekeepers, or motion sensors that can lead to loss, damage, or forgetting to bring access cards, high operational costs, errors or misuse of authority, and security risks. Security, as a key aspect, is the main focus in managing access to certain restricted areas. Efforts to maintain security are carried out through the use of automatic gates that can be controlled automatically.

This research provides a solution to the various problems that arise by applying vehicle license plate recognition (LPR) and face recognition technology. LPR uses image processing and machine learning to identify license plates, while face recognition utilizes computer vision and artificial neural networks. This method aims to improve speed, security, and efficiency without reliance on access cards or additional equipment, and can reduce operational costs compared to access card systems. This research incorporates LPR technology, creating a new approach that suits field conditions, using image data that reflects real situations.

Keywords : LPR, automatic, number plate recognition, face recognition