**AUTOMATED VEHICLE ENTRY AND EXIT**

**TRACKING SYSTEM**

Submitted by

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**In partial fulfilment of the requirements for the award of Master of Science in Computer Science with Specialization in Data Analytics of**



**Kerala University of Digital Sciences, Innovation and**

**Technology (Digital University Kerala), Thiruvananthapuram 695317**

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# CERTIFICATE

This is intended to authenticate that the project report titled “AUTOMATED VEHICLE ENTRY AND EXIT TRACKING SYSTEM”, submitted by Athulraj B C (Roll No.223019), Baby Sherin (Roll No. 223021), and Rafeek R (Roll No. 223041), in partial fulfilment of the requirements for the award of Master of Science in Computer Science with a Specialization in Data Analytics, is a true record of the work completed at Kerala University of Digital Sciences, Innovation and Technology under our supervision.

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# DECLARATION

This report is largely the result of our own work, unless otherwise stated in the text, and was completed between September 2023 and January 2024 as per Rafeek R, Athulraj B. C and Baby Sherin students pursuing Master’s Degree in Computer Science with Specialization in Data Analytics.

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# ABSTRACT

This project presents an innovative smart system that uses computer vision and convolutional neural networks (CNN) to efficiently monitor vehicles in high-traffic areas like residential areas and schools. This system aims to monitor and regulate vehicle access by ensuring a secure and organized environment.

The proposed system infrastructure, which includes a network of security cameras that record complete footage of cars entering and leaving the area and it is installed in entrance and exit gates. The system verifies that the vehicle entered is authorized vehicle or not, after the identification by comparing licence plate data with the authorised database.

By continuously recording entry and exit times, the system enables the calculation of each vehicle's daily duration on campus. This function allows for the identification of any unfamiliar vehicles trying to enter the property and improving security measures in every direction. These advanced characteristics support additional safety and effective monitoring, completing the suggested system's set of features for maintaining safe environments in a wide range of situations.

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