

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
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A PROJECT REPORT ON

**DYNAMIC TRAFFIC TOLLING PREDICTION USING
SOFT COMPUTING AND OPEN CV**

Submitted in partial fulfilment for the award of Degree of,

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

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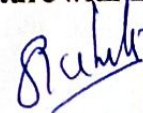
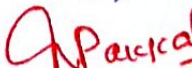

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hereby declare that the dissertation entitled, **“DYNAMIC TRAFFIC TOLLING PREDICTION USING SOFT COMPUTING AND OPEN CV”** is completed and written by us under the supervision of our guide **Ms.Lolakshi P K, Assistant Professor, Department of Information Science and Engineering, Alva's Institute of Engineering And Technology, Moodbidri**, in partial fulfillment of the requirements for the award of the degree BACHELOR OF ENGINEERING in **DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the academic year 2023-24. The project report is original and it has not been submitted for any other degree in any university.

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ABSTRACT

In response to the rapid urbanization and escalating vehicular traffic, smart city initiatives have become imperative for fostering sustainable urban development. Urban planners grapple with myriad challenges, chief among them being the effective management of traffic congestion. This congestion not only undermines transportation system efficiency but also precipitates environmental degradation and economic losses. Dynamic traffic tolling emerges as a promising solution to alleviate congestion by dynamically adjusting toll prices based on real-time traffic conditions. However, the effective implementation of dynamic tolling hinges on accurate prediction models to anticipate traffic patterns and optimize tolling strategies. This research project proposes a novel method to predict traffic flow in smart cities using computational software. Leveraging computational software techniques such as neural networks, fuzzy logic, and genetic algorithms offers the flexibility needed to model nonlinear relationships in traffic dynamics. The project aims to develop powerful predictive models capable of accurately and efficiently forecasting traffic and congestion levels. By leveraging the power of software calculations, this endeavor seeks to provide urban planners with indispensable tools to enhance traffic management strategies and promote more sustainable urban environments.

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INTRODUCTION