

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELAGAVI**



**A PROJECT REPORT ON
“DANGEROUS ROAD CURVATURE DETECTION
USING EGDE DEVICES”**

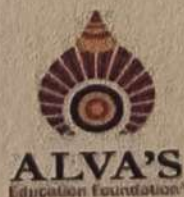
Submitted in partial fulfillment for the award of Degree of
BACHELOR OF ENGINEERING

**IN
COMPUTER SCIENCE & ENGINEERING**

By

SHASHANK POOJARY	4AL20CS131
SHRAVAN KUMAR	4AL20CS139
SUMANTH	4AL20CS154
SWASTHIK	4AL20CS157

Under the Guidance of
Dr. Manjunath Kotari
Professor & Head



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MOODBIDRI-574225, KARNATAKA**

2023-24

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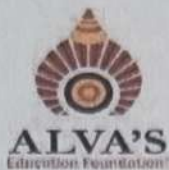
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ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225, KARNATAKA



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"DANGEROUS ROAD CURVATURE DETECTION USING EGDE DEVICES"** has been successfully completed by

SHASHANK POOJARY	4AL20CS131
SHRAVAN KUMAR	4AL20CS139
SUMANTH	4AL20CS154
SWASTHIK	4AL20CS157

the bonafide students of DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2021-22. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Handwritten signature of Dr. Manjunath Kotari in blue ink, dated 16/5/24.

Dr. Manjunath Kotari
Project Guide

Handwritten signature of Dr. Manjunath Kotari in blue ink, dated 16/5/24.

Dr. Manjunath Kotari
Head Of the Department

Handwritten signature of Dr. Peter Fernandes in green ink.

Dr. Peter Fernandes
Principal

External Viva

Name of the Examiners

Signature with Date

1.

2.

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR, MOODBIDRI D.K. -574225, KARNATAKA



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DECLARATION

We,

SHASHANK POOJARY
SHRAVAN KUMAR
SUMANTH
SWASTHIK

hereby declare that the dissertation entitled **"DANGEROUS ROAD CURVATURE DETECTION USING EDGE DEVICES"** is completed and written by us under the supervision of our guide **Dr Manjunath Kotari**, Professor & Head, Department of Computer and Engineering, Alva's Institute of Engineering and Technology, Moodbidri, in partial fulfillment of requirements for the award of the degree **BACHELOR OF ENGINEERING** in **DEPARTMENT OF COMPUTER AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAVI** during the academic year 2023- 24. The dissertation report is original and it has not been submitted for any other degree in any university.

SHASHANK POOJARY

4AL20CS131

SHRAVAN KUMAR

4AL20CS139

SUMANTH

4AL20CS154

SWASTHIK

4AL20CS157

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The selection of this project work as well as the timely completion is mainly due to the interest and persuasion of my project coordinator **Mrs. Vidya**, Assistant Professor, Department of Computer Science & Engineering. We will remember her contribution for ever.

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SHASHANK POOJARY	4AL20CS131
SHRAVAN KUMAR	4AL20CS139
SUMANTH	4AL20CS154
SWASTHIK	4AL20CS157

ABSTRACT

Deep learning plays very important role in almost all domains and application areas of AI like computer vision, biometrics, NLP, Healthcare etc. However, when there is lack of training data then it is difficult to train a model. Signature verification and forgery detection are the process of verifying signatures automatically and instantly to determine whether the signature is real or not. There are two main kinds of signature verification: static and dynamic. Static, or offline verification is the process of verifying a document signature after it has been made, while dynamic or online verification takes place as a person creates his/her signature on a digital tablet or a similar device. The signature in question is then compared to previous samples of that person's signature, which set up the database. In the case handwritten signature on a document, the computer needs the samples to be scanned for investigation, whereas a digital signature which is already stored in a data format can be used for signature verification. Handwritten signature is one of the most generally accepted personal attributes for verification with identity whether it may for banking or business. While this method uses CNNs to learn the signatures, the structure of our fully connected layer is not optimal. Generally, to avert falsification and discriminate genuine as well as forged signature, Convolutional Neural Network (CNN) is highly researched. In the model we will create two classes for each user real and forgery.

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