Smart Road Damage Detection and Warning

Sayali Bandal[1], Akanksha Ekshinge[2], Shrutika Gaikwad[3], and Prof. Gade N.B.[4]
[123]*Student, Assistant Professor[4], [123] Department of Computer Engineering, SPPU University*
[1234]*Shri Chhatrapati Shivaji Maharaj College Of Engineering,Nepti Ahmednagar.*

***Abstract*— currently, it's difficult to keep up with the framework's development. Viewed by from one end of the world to the other, there are local and public overseers. Consistently monitoring (i.e., measuring the degree of security and unshakable quality) the situation of extremely large designs is a crucial component of effective framework support. Meanwhile, significant progress has recently been made in PC vision, mostly as a result of effective applications of deep learning models. These ingenious developments are making it possible to automate previously difficult-to-mechanize vision tasks, with promising results that could aid administrators in enhancing their framework maintenance efforts. In this exceptional circumstance, the IEEE 2020 global Road Damage Detection (RDD) Challenge is providing an opportunity for researchers in deep learning and computer vision to reach out and assist in accurately tracking asphalt damages on street organizations. To that end, this essay offers the following two commitments: We describe our response to the RDD Challenge in a first section. The efforts we made to communicate our idea to a local street organisation are shown in the next section, along with an explanation of the suggested approach and any challenges we encountered.**

***Index Terms*— Accident detection, convolutional neural network, computer vision, neural networks.**

I. INTRODUCTION

The transportation networks of all countries ROAD are important social and economic components. However, they are falling apart all over the world, sometimes to a dangerous degree, due to obsolescence, lack of routine maintenance, or natural disasters. As a result, poor road conditions have led to major economic losses and safety concerns. According to its own data, road accidents cause millions of injuries each year, of which more than 300,000 are seriously injured, resulting in 1.5 to 3 percent of global economic losses. Automobile accidents are frequently caused by poor road conditio ns. Despite this, monitoring road conditions remains difficult due to the large road network and crowded environment. The existing road damage monitoring process, which is subjective, labour intensive, costly, and time consuming, is largely conducted by certified inspectors. In addition, most previous studies, such as , have focused exclusively on the detection of road damage (e.g., cracks), with very few researchers.

II. PROPOSED SYSTEM

There are a number of N users in this module. Users should register before performing any operations. Once the user registers, his data will be stored in the database.

After successful registration he has to log in with authorized username and password. After successful login user can perform some operations like manage account, search road damage by keyword. View your search further process.

The proposed work collects image datasets for road damage prediction.

Capturing symptoms from images and predict composes main component including tested dataset for representations.

III. SYSTEM ARCHITECTURE

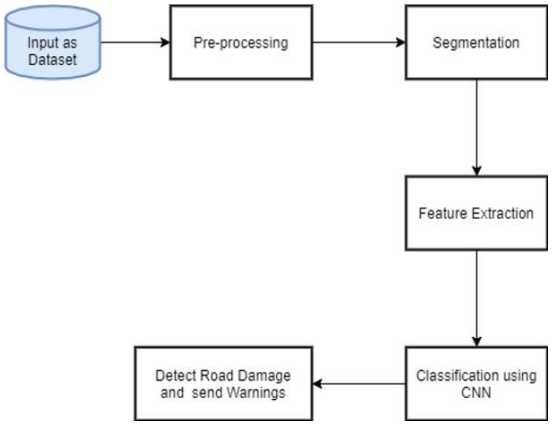

Fig1: System Architecture

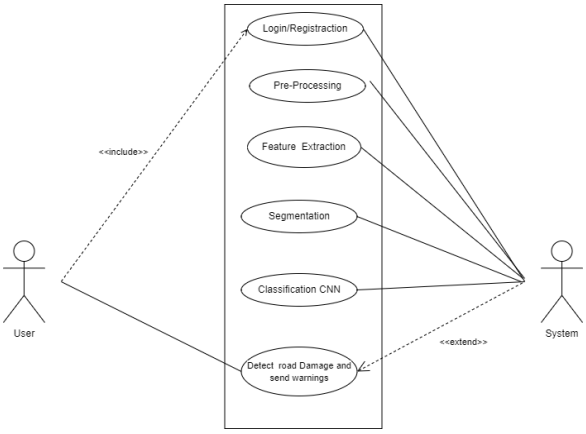

Figure 2: Use case Diagram

IV.CONCLUSION

Road damage detection is critical for road maintenance, which usually requires a significant amount of manual labour. In this system, we use deep learning models to analyse road images to quickly detect road damage. We train and test several deep learning algorithms to identify highly accurate and efficient models.

V. RESULT

Figure 3: register user

Figure 4: Registration Page

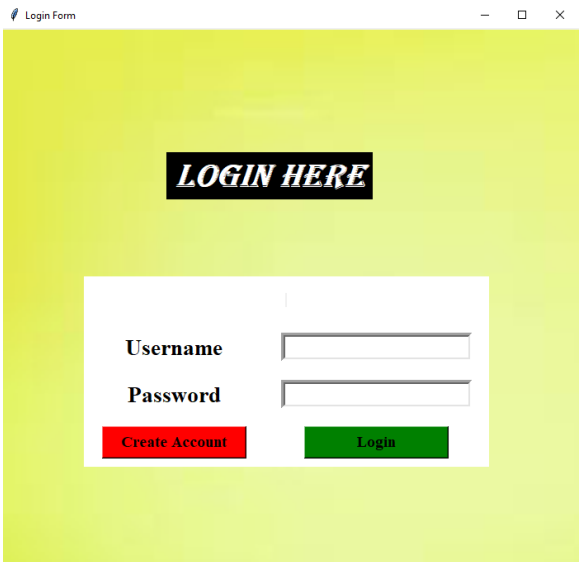

Figure 5: Login Page

Figure 6: Gui Masterpage

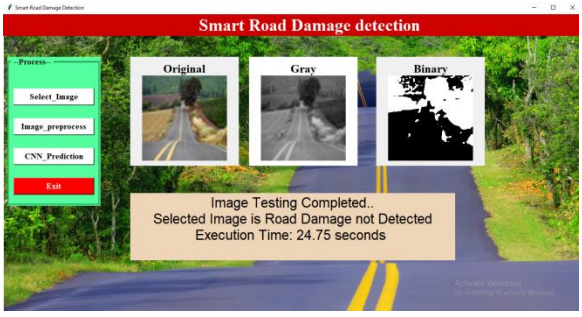

Figure 7: Output

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