

Routerich

**Tarannum Shaikh¹, Pranav Rajshekar Karlekar², Prathmesh Vijay Kokare³,
Shravani Mohan Mohite⁴, Maryam Javed Shaikh⁵, Shrutika Pravin Shinde⁶**

Assistant Professor, Department of Computer Science and Engineering¹
Students (B.Tech), Department of Computer Science and Engineering^{2,3,4,5,6}
Karmaveer Bhaurao Patil College of Engineering Satara, Maharashtra, India

Abstract: *GPS-based navigation systems have become an integral part of our day-to-day lives. People frequently use these systems to find their way around due to their usability and ease of use. Google Maps is currently the most widely used navigation system in the world. Alongside providing routes and navigation, it also provides information about traffic, weather conditions, and even feedback and reviews of the places you are visiting. But none of the existing navigation systems advises you about the underlying road conditions. Although they suggest the shortest route, it may not be the best route. Many times, you even end up reaching a dead end as a result of relying on these systems. In the midst of all this, a navigation system that can suggest routes not only based on the shortest distance but also based on underlying road conditions with real-time feedback has become a necessity. The goal of this paper is to efficiently search for the most accessible alternative paths in a multi-route navigation system.*

Keywords: Route Navigation System, Optimal Routes, Route Guidance System, Road Condition Detection, Route Planning

REFERENCES

- [1]. https://www.researchgate.net/publication/348549197_Monitoring_of_road_damage_detection_systems_using_image_processing_methods_and_G
- [2]. https://www.researchgate.net/publication/332662441_Visual_Safe_Road_Travel_App_Over_Google_Maps_About_the_Traffic_and_External_Conditions
- [3]. On the analysis of road surface conditions using embedded smartphone sensors | IEEE Conference Publication | IEEE Xplore
- [4]. <https://iopscience.iop.org/article/10.1088/1757-899X/1010/1/012017/meta#:text=The%20method%20used%20in%20this%20paper%2C%20which%20uses,sensor%2C%20as%20geotagging%20location%20and%20CSI%20camera%20interface.>
- [5]. https://www.researchgate.net/publication/333117435_Google_Maps
- [6]. Detection of Potholes and Speed Breaker on Road | Semantic Scholar