SHORTEST PATH: A DYNAMIC AND EXTENSIBLE INDICATOR FOR GEOGRAPHICAL SEARCH ON ROAD NETWORK

A PROJECT REPORT

*Submitted by*

**AISHWARYA R (111712104002)**

**HARI PRIYA P (111712104032)**

*In partial fulfilment for the award of the degree*

*of*

BACHELOR OF ENGINEERING

IN

**COMPUTER SCEINCE AND ENGINEERING**

RMK ENGINEERING COLLEGE, KAVARAIPETTAI

ANNA UNIVERSITY: CHENNAI 600 025

**APRIL 2016**

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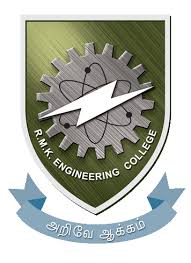
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**BONAFIDE CERTIFICATE**

Certified that this project report “SHORTEST PATH: A DYNAMIC AND EXTENSIBLE INDICATOR FOR GEOGRAPHICAL SEARCH ON ROAD NETWORK” is the bonafide work of “AISHWARYA R (111712104002), HARI PRIYA P (111712104032)” who carried out the project work under my supervision.

**SIGNATURE SIGNATURE**

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**R.M.K. ENGINEERING COLLEGE**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**VIII SEMESTER**

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| **NAME OF THE CANDIDATES** | **PROJECT TITLE** | **NAME OF THE SUPERVISOR** |
| AISHWARYA R  (111712104002) | SHORTEST PATH: A DYNAMIC AND EXTENSIBLE INDICATOR FOR GEOGRAPHICAL SEARCH ON ROAD NETWORK | Ms.A.JASMINE GILDA,M.E., |
| HARIPRIYA P  (111712104032) |

The report of the project work submitted by above students in partial fulfillment for the degree of **BACHELOR OF ENGINEERING** in **COMPUTER SCIENCE AND ENGINEERING** branch of Anna University were evaluated and confirmed.

The university viva-voce is held on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**INTERNAL EXAMINER EXTERNAL EXAMINER**

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**ABSTRACT**

This project deals with the optimization of vehicle routing. Since the total traveling time is not always effective due to road condition and some other obstacles, the objective regarded in this project comprises not only total traveling distance, but also the total traveling time. We propose Graph Search Algorithm (GSA) to solve the problem. Path query, k nearest neighbor (kNN) query, and keyword-based kNN query, are widely used in location-based systems. The basis for this framework is an assembly-based method to calculate the shortest-path distances between two vertices (Based on Road Condition and Distance). Based on the assembly-based method, efficient search algorithms (Fuzzy Logic and Graph Search) are used to answer kNN queries and keyword-based kNN queries are developed.

Based on the road conditions and traffic conditions we develop an optimum value, based on which we try to find not only the shortest path but also the optimum path which helps in real time scenarios. Along with distance we take this optimum value to find the best route in road networks.