Reliability Prediction using Machine Learning Techniques

A Dissertation submitted in the partial fulfillment for the award of

MASTER OF TECHNOLOGY

IN

SOFTWARE ENGINEERING

by Arunima Jaiswal Roll no. 2k11/SWE/03

Under the Esteemed Guidance of

Dr. Ruchika Malhotra



Department of Computer Engineering

Delhi Technological University

New Delhi

2012-2013

DECLARATION

I hereby declare that the thesis entitled "**Reliability Prediction using Machine Learning Techniques**" which is being submitted to the **Delhi Technological University**, in partial fulfillment of the requirements for the award of degree of **Master of Technology in Software Engineering** is an authentic work carried out by me. The material contained in this thesis has not been submitted to any university or institution for the award of any degree.

Arunima Jaiswal

Department of Computer Engineering

Delhi Technological University,

Delhi.

CERTIFICATE



DELHI TECHNOLOGICAL UNIVERSITY

(Govt. of National Capital Territory of Delhi)

BAWANA ROAD, DELHI-110042

Date:

This is to certify that the thesis entitled "**Reliability Prediction using Machine Learning Techniques**" submitted by **Arunima Jaiswal (Roll Number: 2K11/SWE/03)**, in partial fulfillment of the requirements for the award of degree of Master of Technology in Software Engineering, is an authentic work carried out by her under my guidance. The content embodied in this thesis has not been submitted by her earlier to any institution or organization for any degree or diploma to the best of my knowledge and belief.

Project Guide

Dr. Ruchika Malhotra

Assistant Professor

Department of Computer Engineering

Delhi Technological University, Delhi-110042

ACKNOWLEDGEMENT

I take this opportunity to express my deepest gratitude and appreciation to all those who have helped me directly or indirectly towards the successful completion of this thesis.

Foremost, I would like to express my sincere gratitude to my guide **Dr. Ruchika Malhotra**, **Assistant Professor, Department of Computer Engineering, Delhi Technological University, Delhi** whose benevolent guidance, constant support, encouragement and valuable suggestions throughout the course of my work helped me successfully complete this thesis. Without her continuous support and interest, this thesis would not have been the same as presented here.

Besides my guide, I would like to thank the entire teaching and non-teaching staff in the Department of Computer Science, DTU for all their help during my course of work.

ARUNIMA JAISWAL