## SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

## Department of Computer Science and Engineering

## Certificate



Certified that project entitled "AN APPLICATION FOR SMARTPHONE AUTHENTICATION BASED ON HAMILTONIAN COLOR-CODE SCHEME" carried out by, APOORVA HARIHAR (1SG12CS010), HARSHINI B.R (1SG12CS129), KUMAR SHUBHAM (1SG12CS046), NAMRATHA K.P (1SG13CS408) bonafide student of this institute, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belgaum during the academic year 2015-16. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS085) prescribed for the said degree.

déthou 18/05/16

Signature of the Guide

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**Assistant Professor** 

Signature of the HOD

Dr.C.M.Prashanth

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## **ABSTRACT**

Smartphones are used as a communication channel for exchanging user data and coordinating their business work. Users are more concerned about their private data that are stored on their portable devices, but unfortunately these devices are more prone to attacks by malicious users. The objective is to provide a new authentication system based on Color-Code such that it will preserve user's privacy and improve smartphone security. Every individual person has his own choice to select different colors. A color sequence can be a variety of unique color combinations and they are easy to remember. A user would specify desired Color-Code sequence as a passkey to authenticate the user on the device. In order to fortify smartphone security from malicious users, this system uses random colors and captcha to increase difficulty of brute force attack. This application is based on multi-phase security schema which authenticates the users and safeguards their privacy on smartphones.