

SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057.

Department of Computer Science and Engineering



Certificate

Certified that the Project Work entitled **"IOT BASED HOME SECURITY THROUGH DIGITAL IMAGE PROCESSING ALGORITHMS"** carried out by **SANKETH P N (1SG14CS100)**, **SRIRAJ P (1SG14CS112)**, **PUNITH H R (1SG15CS414)**, **REVANTH C (1SG15CS417)**, bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2017-2018. 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 (10CS85) prescribed for the said degree.

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ABSTRACT

IOT based home security is a automatic system to control and secure the home, based on digital image processing with the help of Internet of Things (IoT). The system consists of a raspberry pi, digital camera, database in the SD CARD and the android application. A camera is placed in the frame of the door to capture an image who intends to enter the house, then sends the image to the database or dataset that is stored in the SD CARD. Image analysis is performed to detect and recognize and match the image with the stored dataset of the authenticated people. If the image captured does not match with the data set then an alert message is send to the owner of the house. This automatic system is very useful in the house consisting of Children and old age people. The image processing algorithms are considered for the processing spatial and time complexity of the image captured to cross check with the dataset stored in the SD CARD.