IoT based Home Security through Digital Image Processing Algorithms

ABSTRACT:

This paper gives an outline for 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 sensor, digital camera, database in the fog and the mobile phone. Sensors are placed in the frame of the door which alerts camera, to capture an image who intends to enter the house, then sends the image to the database or dataset that is stored in the fog. Image analysis is performed to detect and recognize and match the image with the stored dataset of the authenticated people or pets. If the image captured does not match with the dataset then an alert message is send to the owner of the house. 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 fog.