Abstract

In the today’s world the security of the home is the prime concern. The traditional methods of securing our home are very easy to break and lead to theft. To protect the home, we need to install the costly security system. To overcome this problem, we are presenting IoT based solution where we can setup a smart home security system. In this paper we are proposing the system with the help of face recognition to develop the automatic door lock and unlock system. It also gives us the facility to monitor our home remotely and take appropriate action if anything goes wrong. The Pi camera will be attached to the Raspberry pi accompanied with Passive Infrared and other sensors. Camera captures an image of the person in front of the door, then real-time face recognition is done using local binary pattern (LBP) [3]. If person's image matches with one of the home members or identified person then the door will unlock otherwise won’t. Email containing image of the unknown person will be sent to the homeowner to his Gmail Id. The proposed system keeps the owner informed in the real time about the unknown person at the door of the home. This information will help the user to take necessary actions.
References

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Index Terms

Computer Science     Image Processing

Keywords

Home Security System, Face Recognition, Raspberry Pi