#### A PROJECT REPORT ON

# UNIQUE BIO-IDENTIFICATION FOR HOME SECURITY ON IOT

SUBMITTED TO SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE IN THE PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE

OF

# BACHELOR OF ENGINEERING IN INFORMATION TECHNOLOGY

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# UNDER THE GUIDANCE OF PROF. G.M. GAIKWAD



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## **CERTIFICATE**

This is to certify that the Project Entitled

## UNIQUE BIO-IDENTIFICATION FOR HOME SECURITY ON IOT

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is a bonafide work carried out by students under the supervision of PROF. G.M.GAIKWAD and it is submitted towards the partial fulfillment of the requirement of Bachelor of Engineering (Information Technology) Project.

This project report has not been earlier submitted to any other Institute or University for the award of any degree or diploma.

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#### UNIQUE BIO-IDENTIFICATION FOR HOME SECURITY ON IOT

#### **ABSTRACT**

The document explains the importance of access to modern smart homes over the Internet, and highlights several security issues associated with it. In this work, we propose a two-step verification process for smart homes using a fingerprint i.e bio-identification and access credentials, which verifies the person and after owner accessing the home over the Internet. User fingerprint process is the very first verification process in our implementation. The sensor detects and creates the fingerprint image by determining the light and dark areas created by the fingerprint ridges. In this system, when a owner wants to access the home via the Internet, which requires the server access page, the server returns the login page with the Java fingerprint script. The user fingerprints are verified, if the verification is passed, then the gathered device fingerprint is analyzed to see if there are enough device fingerprinting parameters available to provide a comprehensive fingerprint of the user device.

#### **ACKNOWLEDGMENTS**

I have a great pleasure in presenting this report on "UNIQUE BIO-IDENTIFICATION FOR HOME SECURITY ON IOT" and to express my deep regards towards those who have offered their valuable time and guidance in our hour of need.

I would like to express our sincere and whole hearted thanks to my project guide PROF. G.M. GAIKWAD, head of department PROF. T.J. PARVAT and my project coordinator PROF. F.S. GHODICHOR for contributing valuable time, knowledge, experience and providing valuable guidance in making this project a success.

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