Design Engineering

ISSN: 0011-9342 | Year 2022
Issue: 1 | Pages: 2850 - 2857

# Case Study: Design Engineering for Ear Biometric Model

**Angayarkanni N[1], Minarva Devi K[2], Ashaboshini R[3], Devi Abarna Sri A[4], Aanjana Devi S[5], Aanjankumar S[6], Anitha Thangasamy[7]**

[1,2,3,4,6]Sri RaajaRaajan College of Engineering and Technology, Karaikudi,Tamilnadu,India
[5]Alagappa University, Karaikudi,Tamilnadu,India
[7]Anna university-CEG Campus,Tamilnadu,India
Angayarkannibe13@gmail.com[1],minarvadevi88@gmail.com[2],ashaboshini@gmail.com[3],abarnasri2404@gmail.com[4],devisuresh94@gmail.com[5],itsec1990@gmail.com[6],anithathangasamy@gmail.com[7]

***Abstract:***

Biometric based authentication is the wide spread concept of identifying the personal characteristics while offering certain services. There are huge varieties of biometric authentication approaches are proposed by various scientific researches and developers like fingerprints, face biometric, iris, DNA, palm and Ear. While comparing with other biometric technique Ear biometric gets more attention than others. Because the ear-based authentication has various advantages and offers security and reliability than the other biometrics. This paper investigates the various existing models in ear based biometric and tabulate its performance analysis for easier implementations.

***Keywords:*** *Ear, Biometrics, Ear Biometric, Review, Performance Analysis, Evaluation of Ear Biometrics, PCA.*

## I. INTRODUCTION

In this modern era, biometric concepts are introduced in wide variety of applications and it is the best replacement models for our traditional user authentication called Login. The usual login models included the user name and passwords. These models are replaced by variety of security features because of the security weakness. The Biometric technology is the modern approach which can be utilized in user authentication to offer high security. The biometrics can test the users and authenticate the users by their physical characteristics with the help of computers, sensors and machine learning devices. The Biometric identification is separated into various models like Iris, Palm, Fingerprint, Face, DNA and Ear. Ear based authentication is the newest trend in human authentication and it gets more attention because of its unique features and security strength [1].