

**Paper Title:**

Face Recognition System Based on Four State Hidden Markov Model

**Paper Link:**

<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9815216>

**Playlist Link:**

<https://youtu.be/Lsd2MLU139k?si=ILVNikosGDACX3G>

**1 Summary****1.1 Motivation**

The ground basis of this paper was to tackle the ever-challenging task of face recognition.

**1.2 Contribution**

The paper proposes a method of using Hidden Markov Models in face detection and creating an easier approach to face recognition..

**1.3 Methodology**

The author's idea is to divide face images into overlapping blocks and instead of directly working with the raw pixel data, use the coefficients of eigenvalues and eigenvectors obtained through Principal Component Analysis (PCA).

**1.4 Conclusion**

The authors demonstrate that their method achieves a remarkable 95% recognition rate on a dataset of 1000 images

**2 Limitations****2.1 First Limitation**

The dataset was small compared to the real-life cases.

**3 Synthesis**

The research is good for humanity overall, specially for low-income countries where tools like these would help the poor population get significant coverage of early skin disease detection through apps