

POSE INVARIANT FACE RECOGNITION – A NEW TECHNIQUE

S. MURUGANANTHAM

Assistant Professor, Master of computer Applications, S.T.Hindu College Manonmaniam Sundaranar university, Nagercoil,
Tamilnadu, India

ABSTRACT

Face being the most important Biometric trait it still faces many challenges, like pose variation, illumination variation etc. Face recognition system become important for many applications such as automatic access control and video surveillance. Most of the algorithm needed proper frontal view for recognition. In this paper I propose a novel approach for robust pose invariant face recognition. A multi-view face detection based on head pose estimation is presented. The combination of eigenface method and Support Vector Machine (SVM) are investigated to detect the face image. An input face image is normalized to frontal view using the irises information. Use Affine transformation parameters to align the input pose image to frontal view. Experimental result shows that it has the better performance and it increases the recognition result.

KEYWORDS: Pose Invariant, Pose Estimation, Eigenface, SVM, Affine Transformation, Face Recognition