International J. of Math. Sci. & Engg. Appls. (IJMSEA) ISSN 0973-9424, Vol. 6 No. II (March, 2012), pp. 357-387

A NOVEL APPROACH OF FACE RECOGNITION USING STATISTICAL FEATURES AND NEURAL NETWORKS

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Abstract

Face is an important biometric feature for personal identification. Human beings easily detect and identify faces in a scene but it is very challenging for an automated system to achieve such objectives. The need for reliable identification of interacting users is obvious. The research on face recognition has been actively going on in the recent years because face recognition spans numerous fields and disciplines such as access control, surveillance and security, credit-card verification, criminal identification and digital library.Many methods have been proposed for face recognition but each has its own drawback due to the variety of uncontrolled scenarios such as illumination, pose variations and occlusions.In this paper we discuss past research on biometric face feature extraction and recognition of static images. We will present implementation outline of these methods along with their comparative measures and result analysis.

Key Words : Automatic face recognition, Appearance based recognition, Principal component feature extraction statistical approaches, Singular values, Fractional singular value.

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