**ABSTRACT**

In a Multimodal biometric system, the effective fusion method is necessary for combining information from various single modality systems. Two biometric characteristics are considered in this study: iris and fingerprint. Multimodal biometric system needs an effective fusion scheme to combine biometric characteristics derived from one or more modalities. The score level fusion is used to combine the characteristics from different biometric modalities. Fusion at the score level is a new technique, which has a high potential for efficient consolidation of multiple unimodal biometric matcher outputs. Support vector machine and extreme learning techniques are used in this system for recognition of biometric traits. In this, the Fingerprint-Iris system provides better performance and comparison of support vector machine and extreme learning machine based on score-level fusion methods is obtained. In score-level fusion, ELM provides better performance as compare to the SVM. It reduces the classification time of current system. This work is valuable and makes an efficient accuracy in such applications. This system can be utilized for person identification in several applications