

NOVEL APPROACH FOR MULTIMODAL BIOMETRIC SYSTEM USING COMPRESSIVE SENSING THEORY BASED WATERMARKING

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ABSTRACT

Every colleges, offices, banks and industry are using biometric recognition system for authentication of employers. This biometric authentication system are use biometric templates or characteristics of employer and based on comparison of this template with enrolled data or template of employer for making decision about allowed enter into organization or not. So protection and recognition of human characteristics very important role play in multimodal biometric authentication system. In this review paper, we are proposed new architecture for multimodal biometric authentication system using digital watermarking and Compressive Sensing theory. In proposed architecture, we are using compressive sensing theory for generation of measurement features of biometric template of individual and embed into another biometric template of same individual to generate multimodal biometric watermarked image. This watermarked version of biometric image is use for matching with enrolled biometric templates and if matching is not possible then extracts measurement biometric features from watermarked image and match with second enrolled data of individual. This paper also shows that how improved data storage capacity at system database and protection of multibiometric template over noisy communication channel.

KEYWORDS: Authentication, Compressive Sensing, Digital Watermarking, Enrollment, Multimodal Biometric Templates, Verification