A ROBUST RECOGNITION ALGORITHM FOR MOTION-BLURRED IRIS IMAGES TO MINIMIZE THE INTRA INDIVIDUAL VARIATIONS

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ABSTRACT
Biometric widely used nowadays for identification and authentication purpose. Factor that leads to increasing numbers of research on biometrics is security. The uniqueness, permanence, measurability and acceptability of biometric traits are considered in order to choose the most significance traits. With considering those factors, iris has been selected to be the domain in this research. Iris recognition has been in demand in biometric area. Hence, there are a few limitation that considering iris with motion-blurred effects. Most of researchers nowadays only focus on noisy image with specular reflection and off angle. Thus, the biggest challenge with motion-blurred iris image is to analyze the exact pattern of the given iris image. This will leads to increase the intra individuals’ variation and contribute to identity theft. To enhance the distinctiveness of iris pattern, homomorphic filtering and multiscale retinex implemented in this study. By enhancing the iris pattern, highest accuracy will obtained. In addition, it will minimize the false acceptance rate and false rejection rate.

KEYWORDS
Motion-blurred, Non-cooperative environment, Iris recognition, Intra individual variations