

A Fourier Transform Quality Measure for Iris Images

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Abstract

Iris recognition systems have attracted much attention for their uniqueness, stability and reliability. However, performance of this system depends on quality of acquired iris sample. This is because in order to obtain reliable features good quality images are to be used. Thus, it is important to accurately assess image quality before applying feature extraction algorithm in order to avoid insufficient results. This study aims to quantitatively analyse the effect of iris image quality in order to ensure that good quality images are selected for feature extraction, in order to improve iris recognition system. In addition, this research proposes a measure of iris image quality using a Fourier Transform. The experimental results demonstrate that the proposed algorithm shows better performance in quality classification as it yields a 97% accuracy rate than the existing algorithms.