

Abstract

Today many systems use face recognition for system's security. However, facial recognition system is still vulnerable to spoofing attacks, an attack by faking photos or videos of the face owner of the system. To avoid this crime, the author built a system that can detect spoofing attacks using Local Derivative Pattern method from the Three Orthogonal Planes. The dataset sources that used in this research is video format from four different public databases, Idiap Replay Attack Database, MSU MFSD Database, Casia FASD Database and NUAA Imposter Database. The test results in intra-dataset scenario obtained the best performance with average of F1-Score 97.77% and average of HTER 8.47% and in cross-dataset scenario the system achieved average of F1-Score 74.77% and average of HTER 29.05%.

Kata kunci : Deteksi *Spoofing*, Local Derivative Pattern dari Three Orthogonal Planes, Support Vector Machine, *intra-database*, *cross-database*.