

Abstract

The human face is one of the unique features inside a human being. Particularly in the field of biometric security using human face has been widely implemented in the real world. Therefore, at this time the human face is one of the guidelines in the security system. Today the challenge is how to detect forgeries of that data. Such an attack is called spoofing. Spoofing occurs when someone is trying to pretend to be someone else by falsifying data and the original of the act the person may gain illegal access and get the benefit. For example one can falsify the face recognition system using photographs, video, masks or 3D models of the target in front of the camera. To overcome these authors propose spoofing detection of human faces using texture analysis.

In this research, human faces spoofing detection system built using the texture-based feature extraction, the Local Binary Pattern (LBP) and Gray-Level Co-Occurrence Matrix (GLCM). System performance when using the extraction characteristics of LBP alone was 94.04%, whereas when using only GLCM obtained accuracy is 84,65%. However, when using a combination of LBP and GLCM performance of the system reached 98,22%. Based on the results obtained, the use of a combination of LBP and GLCM succeeded in improving the performance of the system built.

Keywords: Spoofing, Biometric, Texture Analysis, LBP, GLCM.