
The liveness detection module based on spectral reflection characteristics of facial skin

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The computer appliance of liveness detection embedded in the face recognition system is developed. This paper presents interconnections between the liveness detection module and the recognition system and formulates requirements for software and hardware components of the liveness detection module. We develop the algorithm for determination of vitality based on analysis of spectral reflection characteristic of facial skin, which provides protection from most of known counterfeits. We design the brassboard of the system and carry out experimental research. According to the results of experiment, the reliability evaluation of liveness detection is obtained.

Keywords: *biometric system, digital image processing, face recognition, liveness detection, spoofing attack.*

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