

# **Ultrafast Optical Processing Based Biometric Recognition**

**(Keynote Address)**

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## **Abstract**

Existing biometric recognition systems are susceptible to spoofing attacks and it is crucial to incorporate liveness detection to ensure reliable biometric recognition, especially for security applications. In this keynote, we will review the recent trends and advancements in correlation based optical/digital biometric recognition and liveness detection techniques followed by the development of an efficient wavelet based face liveness recognition system. We tested the effectiveness of the proposed approach using various real life face anti-spoofing datasets which incorporates different types of spoofing attacks. The test results obtained using the proposed technique shows significantly better performance compared to existing techniques. This technique can be effectively used for various practical applications such as face recognition, finger print identification, liveness detection, and related applications.