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Topic: Multi-level liveness verification for face-voice biometric authentication

Abstract: In this paper we present the details of the multilevel liveness verification (MLLV) framework proposed for realizing a secure face-voice biometric authentication system that can thwart different types of audio and video replay attacks. The proposed MLLV framework based on novel feature extraction and multimodal fusion approaches, uncovers the static and dynamic relationship between voice and face information from speaking faces, and allows multiple levels of security. Experiments with three different speaking corpora VidTIMIT, UCBN and AVOZES shows a significant improvement in system performance in terms of DET curves and equal error rates(EER) for different types of replay and synthesis attacks.

Biography: Girija has Bachelors and Masters Degree in Electrical and Computer Engineering, and several years of research, industry and teaching experience from India, Europe and Australia. She has several refereed International Conference and Journal publications, and worked as a technical lead in several software development projects in technology start-ups in Australia and India. Presently, she is completing her doctorate under the supervision of Prof. Michael Wagner, director of National Centre of Biometric Studies, Australia, in University of Canberra.