EVALUATION OF THE DISCRIMINATION POWER OF FEATURES EXTRACTED FROM 2−D AND 3−D FACIAL IMAGES FOR FACIAL EXPRESSION ANALYSIS (WedPmPO4)

Author(s) : Ioanna–Ourania Stathopoulou (University of Piraeus, Greece) George Tsihrintzis (University of Piraeus, Greece)

Abstract : In previous works of ours, we presented a neural network−based face detection and facial expression analysis system, which was able to classify three expressions in frontal view face images. In the present work, we examine the possibility of classifying these expressions in side view face images. Specifically, we evaluate the extracted facial feature discrimination power of three image acquisition techniques, namely acquisition in (1) frontal view and (2) side view. Our findings are important in the design of human–computer interaction systems and multimedia interactive services.