

DBN-Based Face Recognition System Using Light Field

Authors : Bing Gu

Abstract : Abstract—Most of Conventional facial recognition systems are based on image features, such as LBP, SIFT. Recently some DBN-based 2D facial recognition systems have been proposed. However, we find there are few DBN-based 3D facial recognition system and relative researches. 3D facial images include all the individual biometric information. We can use these information to build more accurate features, So we present our DBN-based face recognition system using Light Field. We can see Light Field as another presentation of 3D image, and Light Field Camera show us a way to receive a Light Field. We use the commercially available Light Field Camera to act as the collector of our face recognition system, and the system receive a state-of-art performance as convenient as conventional 2D face recognition system.

Keywords : DBN, face recognition, light field, Lytro

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020