



Convolutional Neural Network Super Resolution for Face Recognition in Surveillance Monitoring

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Résumé en anglais	<p>Due to the importance of security in society, monitoring activities and recognizing specific people through surveillance video cameras play an important role. One of the main issues in such activity arises from the fact that cameras do not meet the resolution requirement for many face recognition algorithms. In order to solve this issue, in this paper we are proposing a new system which super resolves the image using deep learning convolutional network followed by the Hidden Markov Model and Singular Value Decomposition based face recognition. The proposed system has been tested on many well-known face databases such as FERET, HeadPose, and Essex University databases as well as our recently introduced iCV Face Recognition database (iCV-F). The experimental results show that the recognition rate is improving considerably after apply the super resolution.</p>
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