Abstract

Face recognition is one of the most important abilities which we use in public security and for identity verification for physical and logical access. It is well known that many image-based face recognition algorithms perform well, when constrained (frontal, well illuminated, high-resolution, sharp, and full) face images are acquired. However, their performance degrades significantly when the test images contain variations that are not present in the training images. Face recognition in constrained acquisition conditions is one of the most challenging problems that have been actively researched in recent years. There are many factors low resolution, poor illumination, pose variation, occlusion and relative motion between the sensor and objects in the scene to substantially degrade performance more than the other quality. The work described in this paper is interested in Motion Blur. Motion Blur is often present in real-world images and
significantly affects the performance of face recognition systems. This paper proposes a novel application for recognizing faces degraded by blur using deblurring of facial images using fast TV-L1 deconvolution model. Experiments on a face database (FERET) artificially degraded by motion blur show that the faces recognition accuracy was better than that when using deblurring algorithms.

References

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Index Terms

Computer Science Algorithms
Keywords

Face Recognition  Motion blur  Deconvolution.