

UW CENTER FOR PATTERN ANALYSIS AND MACHINE INTELLIGENCE

GRADUATE SEMINAR SERIES

Perceptual evaluation of multi-exposure image fusion algorithms

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Date: September 29, 2014

Time: 4:30pm – 5:00 pm

Place: E5-5106 Refreshments will be served

Abstract :

Multi-exposure image fusion is considered an effective and efficient quality enhancement technique widely adopted in consumer electronics products. Nevertheless, little work has been dedicated to the quality assessment of fused images created from natural images captured at multiple exposure levels. In this work, we first build a database that contains source input images with multiple exposure levels together with fused images generated by both classical and state-of-the-art image fusion algorithms. We then carry out a subjective user study using a multi-stimulus scoring approach to evaluate and compare the quality of the fused images. Considerable agreement between human subjects has been observed. Our results also show that existing objective image quality models developed for image fusion applications either poorly or only moderately correlate with subjective opinions.