

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

PH.D DEFENCE - PUBLIC SEMINAR

Title: **Artist-level Light Compositing in Photography**

Speaker: Mr Vlad Hosu

Date/Time: 30 July 2014, Wednesday, 02:00 PM to 03:30 PM

Venue: MR6, AS6-05-10

Supervisor : Dr Terence Sim, Associate Professor, School of Computing

Abstract:

What separates great photos from commonplace snapshots? Is it their elusive beauty or something else altogether? Perceptual fluency, the human visual system's ability to interpret images holds the answer.

Professional photographers use light to express object form and shape. They create beautiful works of art from ordinary objects. What if we could do the same automatically? We introduce amplified perception, a theory describing how to systematically enhance images.

The proposed techniques create "light montages" from photos in multiple illuminations. These compositions augment the depiction of shape by emphasizing visual cues such as shading, reflections and textures. They lean on neuro-aesthetics to render beautiful, photo realistic montages.

The results are evaluated by conducting extensive surveys. Our techniques consistently outperform previous methods, surpassing the works of a professional Photoshop artist. We discuss implications for future research and applications.