3D Reconstruction from Multiple Images

Speaker: Shakil Rehman
Email: shakil@smart.mit.edu
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Time: 4pm to 5pm
Venue: Perseverance Room, Enterprise Level 5

Abstract:

Human visual perception is based on the interpretation of visual motion: a process by which the description of environment in terms of objects, their 3D shape and their motion through space is constructed on the basis of the changing image that reaches the eye. Here I will use multiple view geometry: a method for implementing a multiple view stereo system to reconstruct 3D shapes of the real world objects from a set of 2D images.
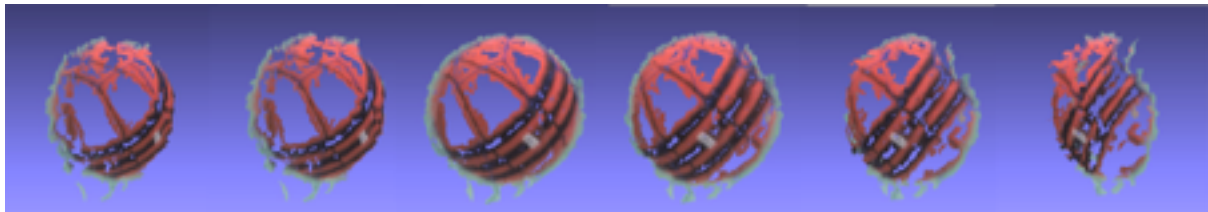
Biography:

Shakil is a Research Scientist at SMART and has joint appointment at the two IRG's: CENSAM and BIOSYM. He did his PhD in Physics from the University of Sydney, Australia and has previously worked at AIST, Tsukuba, Japan and University of Colorado at Boulder, USA. In Singapore, he has worked for the Department of Biomedical Engineering at NUS and at SERI (Singapore Eye Research Institute).

His research interests are in optical imaging, imaging through turbid media, phase imaging, digital holography, confocal and multi-photon microscopy.

Shakil applies his optical imaging and analysis expertise in problems, such as visualization of cells and cellular structure in thick tissue samples and improving the optical imaging contrast in turbid media like, a biological tissue and particulate imaging and characterization in highly turbid water, and 3D optical visualization.