

## Computer Science Seminar Series, 2012

### National Capital Region

From Spatial Computing to Spatiotemporal Computing

**Speaker: Prof. Chaowei Yang, Director**  
**NSF I/UCRC for Saptiotemporal Thinking, Computing and Application**  
**George Mason University**  
**Friday, Sept. 20, 2013**  
**1:00PM- 2:00PM, NVC 325**

#### Abstract

Spatial Computing was defined as utilizing spatial principles to optimize distributed computing for enabling science discoveries. The broadening of spatial principles to spatiotemporal principles would provide a more intrinsic driver for optimizing computing and enabling science discoveries. The NSF I/UCRC is funded to George Mason, Harvard and UC-Santa Barbara to build the spatiotemporal infrastructure to enable scientific discoveries and engineering development in the coming decades. In this talk, I will first introduce the idea of spatiotemporal principles. Then I will use several system engineering and scientific research examples to illustrate how spatiotemporal principles can be utilized to enable scientific discovery and engineering developments. A brief introduction to the NSF spatiotemporal center will conclude my talk.

#### Biography



Chaowei Phil Yang is Associate Professor at George Mason University. His research focuses on utilizing spatiotemporal principles to optimize computing infrastructure to support science discoveries. He has been funded as PI with over \$5M expenditures and participated/participates in over \$20M projects. He published over 100 papers, edited over 10 books and journal special issues. Several of his students serve as faculty members in top geography departments around the world. He received the *US presidential environment protection stewardship award* in 2009 and the first *CPGIS excellence in GIS education award* in 2012. He is the founding director for GMU Center for Intelligent Spatial Computing (CISC) and the NSF I/UCRC for spatiotemporal thinking, computing and applications. More information can be found at: <http://cpgis.gmu.edu/homepage/>.