Announcing the Final Examination of Tae Woong Park for the degree of Doctor of Philosophy

Time & Location: April 10, 2015 at 8:30 AM in Engineering 2 310

Title: AN AGILE ROADMAP FOR LIVE, VIRTUAL AND CONSTRUCTIVE-INTEGRATING TRAINING ARCHITECTURE (LVC-ITA): A CASE STUDY USING A COMPONENT BASED INTEGRATED SIMULATION ENGINE

Conducting seamless Live Virtual Constructive (LVC) simulation remains the most challenging issue of Modeling and Simulation (M&S). There is a lack of interoperability, limited reuse and loose integration between the Live, Virtual and/or Constructive assets across multiple Standard Simulation Architectures (SSAs). There have been various theoretical research endeavors about solving these problems but their solutions resulted in complex and inflexible integration, long user-usage time and high cost for LVC simulation.

The goal of this research is to provide an Agile Roadmap for the Live Virtual Constructive-Integrating Training Architecture (LVC-ITA) that will address the above problems and introduce interoperable LVC simulation. Therefore, this research describes how the newest M&S technologies can be utilized for LVC simulation interoperability and integration. Then, we will examine the optimal procedure to develop an agile roadmap for the LVC-ITA.

In addition, this research illustrated a case study using an Adaptive distributed parallel Simulation environment for Interoperable and reusable Model (AddSIM) that is a component based integrated simulation engine. The agile roadmap of the LVC-ITA that reflects the lessons learned from the case study will contribute to guide M&S communities to an efficient path to increase interaction of M&S simulation across systems.

Major: Industrial Engineering and Management Systems

Educational Career:
Bachelor's of Weapons Engineering, BS, 2000, Korea Military Academy (KMA)
Master's of Industrial Engineering, MS, 2005, Seoul National University (SNU)
Master's of Modeling and Simulation, MS, 2013, University of Central Florida (UCF)

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Luis Rabelo, Co-Chair, Industrial Engineering and Management Systems
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Peter Kincaid, Institute for Simulation & Training (IST)

Approved for distribution by Gene Lee, Committee Chair, on March 11, 2015.

The public is welcome to attend.