Announcing the Final Examination of Hongseon Park for the degree of Master of Science

Time & Location: April 19, 2017 at 11:00 AM in Engineering 2 312L
Title: DESIGN OF A FRAMEWORK FOR SHARING AND GENERATING COMBAT DAMAGE ASSESSMENT(CDA) OF A HLA/RTI FEDERATION

In this paper, a new framework for sharing Combat Damage Assessment(CDA) is proposed to argue the difference of each CDA system between military combat units belonging to their own federate in a HLA/RTI federation. When there are engagements in a battle among combat units belonging to their own federate in the HLA/RTI federation, each result of damage assessments is very different. This is related to the HLA/RTI federation's confidence and needed to be overcome because it is also one of the major issues to generate reliable engagement data. Also, only qualitative data about combat damage can be generated through a RTI.

Therefore, the new framework for sharing CDA and generating quantitative CDA data is proposed to solve the problems with a CDA Module of one federate which is considered to have a standard engagement logic. The new framework is also exercised through two case studies by using two federates of a HLA 1516 / MÅK RTI federation. This new framework can be helpful to increase the interoperability in a HLA/RTI federation, provide an environment in which all developers can reuse the proposed new framework, and generate quantitative engagement data through this new framework.

Major: Industrial Engineering

Educational Career:
Bachelor's of Statistical Information Analysis, BS, 2007, Korea Military Academy

Committee in Charge:
Gene Lee, Chair, Industrial Engineering & Management Systems
Luis Rabelo, Co-Chair, Industrial Engineering & Management Systems
Ahmad K. Elshennawy, Industrial Engineering & Management Systems

Approved for distribution by Gene Lee, Committee Chair, on March 31, 2017.

The public is welcome to attend.