

The Engineering Management, Information, and Systems Department

Would like to announce...

Ph.D. in Systems Engineering Defense

“A Methodology for Assessing Affordability Maturity of U.S. Defense Systems”



Presented by

Long S. Dong

Advisor: Dr. Jerrell Stracener, PhD

Monday, April 3, 2017

11:00AM – 1:00PM

Palmer Conference Center

Caruth Building, Room 406C

Abstract: Systems are becoming more complex while development of these systems are facing challenges due to reduced funding and development schedules. Cost overruns and schedule are

common during defense systems development. Affordability has become the dominant consideration in development of U.S. defense systems. Until now the capability was lacking for assessing affordability during development.

We have used systems engineering to develop a methodology needed to assess affordability during development. The methodology includes associated models for assessing an organization's ability to develop defense systems that meet contractual technical requirements within cost and on schedule.

The Technology Readiness Level (TRL) method, the U.S. Defense Acquisition Strategy, DoDI 5000.02 and the ISO/IEC 15288 standard were used in development of the Affordability Maturity Assessment Methodology (AMAM), considering organization enablers, program management, external risks, and technical performance. This methodology provides a new ground-breaking systems engineering capability for determination of cost and schedule drivers, and the organization's ability to control, to manage, and to achieve contractual requirements leading up to meeting the overall system performance requirements within cost and schedule targets.

Bio: Long is a PhD. candidate with a major in Systems Engineering at the Bobby B. Lyle School of Engineering, Southern Methodist University (SMU). He received his Bachelor of Science degree in Electronics Engineering and Technology from DeVry University, Master of Business Administration (MBA) degree from NTU, and a Master of Science degree in Systems Engineering from SMU. Long is currently Design Change Integration Project Manager for F-35 Producibility Engineering at Lockheed Martin Aeronautics (LMA) in Fort Worth, Texas. He is a graduate of the Lockheed Martin Engineering Leadership Development Program. Long is President of INCOSE, North Texas Chapter.

Everyone invited and welcome!