An invitation to the public defense of a doctoral dissertation in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Engineering Management

Reducing Uncertainty in Technology Selection for Long Life Cycle Engineering Design

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Summary

The purpose of this dissertation is to develop an approach to reduce the uncertainty in technology selection for long life cycle engineering designs.

Selection of technologies with appropriate maturity levels is critical in developing systems with long life cycle . The best capabilities in defense systems are usually achieved by using the latest technologies. This is usually achieved by including technologies that are still under development in the design in anticipation that they will be mature enough when actual production starts. Any deviation from the estimated cost, schedule, and performance levels of these technologies directly impact the feasibility of the entire development program. On the other hand, including already available technologies may not provide competitive capabilities and may become easily obsolete as newer and better technologies become available.

This dissertation proposes an analytical approach to address the risks due to infeasibility and obsolescence in technology selection.

Halil earned a B.S. in Electrical Engineering from Turkish Air Force Academy and a M.S. in Space Systems from US Air Force Institute of Technology

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