Obsolescence: Supply Chain Management at the End of the System Lifecycle

BIOGRAPHY

Dr. Christina Mastrangelo is an Associate Professor of Industrial Engineering at the University of Washington. Her primary research field is systems engineering, quality and risk engineering and predictive analytics and network modeling. Dr. Mastrangelo's research, sponsored by NSF and ONR, seeks to understand the effects of lower-level processes on system-level outputs. This is applied to healthcare delivery, system reliability, obsolescence management, manufacturing and food security.

ABSTRACT

Obsolescence issues continue to grow for many major industries as the lifecycles of most electronic parts decrease in light of the consumer demands for the most updated technology. This talk focuses on forecasting obsolescence for a DoD application and describes a method to forecast the likelihood of lifecycle duration to support a proactive strategy to manage future obsolescence events--specifically when a part or object is no longer obtainable from the original supplier. The basis is the estimation of corresponding probabilities of obsolescence for each part in a system via relatability theory. This approach is extended by examining the shortening of product life cycle curve which leads to the prediction of obsolescence. The research presents an innovation in system level obsolescence.

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