

Getting the scope and context of innovation right: toolsets to guide systems thinking



Dr. Christina Mastrangelo

BIO

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 dynamic modeling applied to healthcare and decision making. 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 and food security.

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Location: MEB 234

ABSTRACT

Systems thinking, with credible tools and resources, is an in-demand approach to today's problems, and understanding stakeholder's needs in context is essential to managing innovation ambiguity. This requires feasible lifecycle concepts, preliminary architecture, models, plans, budgets and schedules sometimes long before requirements are developed.

Systems engineering and project management reduce risk and offer an enhanced toolset as complementary and tightly dependent disciplines. Putting that into practice may be elusive. This talk presents an integrated, educational approach that utilizes rigorous and well-established tools from both disciplines and discusses student outcomes from this integrated approach.