Industrial & Systems Engineering

Seminar Announcement

Teaching Demonstration: Lean/Six Sigma, Simulation, and Probability and Applied Statistics

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Abstract: This teaching demonstration will discuss topics in: Lean/Six Sigma, Simulation, and Probability and Applied Statistics. The Lean/Six Sigma portion will cover value-added versus non-value added processes. It will provide techniques to identify waste and non-value added processes and ways to reduce or eliminate them. The Simulation demonstration will discuss the importance of verification and validation for Simulation models and the difference between the two. It will give an overview of various techniques for creating valid and credible models. Finally, the Probability and Applied Statistics portion will introduce the fundamentals of hypothesis testing for single samples and how to determine when it is useful. Using a step by step procedure, the section will go over an example problem, and discuss null and alternative hypotheses.

Bio: *Patricia Buchanan* received her BS and MS in Industrial Engineering from the University of Florida and her Ph.D. in Industrial and Systems Engineering from the University of Central Florida in May 2014 with a dissertation focused on job scheduling. During 10 years at Harris Corporation in Melbourne, Florida she worked as a production and development manufacturing engineer. She led a company wide effort to implement simulation modeling which was crucial to gaining new contracts and improving manufacturing process capability for Harris. As a Lean/ Six Sigma Black Belt, she was responsible for leading Lean improvement projects and teaching training courses on Root Cause, Mistake Proofing, Yellow Belt and Green Belt certification. Since moving to Washington in 2013 she has worked as a part time consultant and has been active in her daughter's school as the PTA Science chair and hosting events like Family STEM night and Hour of Code.

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1:30 – 2:20 p.m.
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