http://sre-wny.com/

www.incose.org/flc/www.incose.org/flc/

www.pdma.org.

http://www.asqrs.org/

Present

Warranty Prediction during Product Development

By Marcos Esterman and Hee-Rak Kang

Thursday, November 12, 2009

RIT, Bldg. 9 (Gleason College of Engineering),
Xerox Auditorium/Gordon Atrium

This talk describes the challenges faced by companies to manage warranty performance during product development. Understanding and reducing warranty cost often focuses exclusively on the analysis of product failures. However, warranty costs can also be incurred by events such as misaligned customer expectations that do not involve a product failure, per se. Many experts agree that effective management of system reliability and reliability validation during product development is a key to achieve superior time to market and life cycle quality. A survey of the challenges faced by various organizations will be presented. From the survey emerge some key and common issues that these companies face. The talk will then review the current state of the art to identify areas for improvements as well as needed integrations in order to develop a comprehensive framework that will be useful to product developers to manage and predict warranty performance during product development. This framework extends and integrates three areas: 1) extend scenario-based FMEA to include the diagnosis and repair of failure events as part of the scenario; 2) use of Bayesian methods to integrate field data, product development data and engineering judgments; 3) generate costs models that allow tradeoff studies between product design, service model design and warranty policies. The talk will conclude with an update on the research progress to develop a Bayesian framework for warranty prediction and outlines the possible benefits it may provide.

Cost: $15.00 (Dinner and Presentation) - Dinner will be Pizza, Wings, and Soda
$5.00 (Presentation Only)

5:30 Registration, Networking, and Dinner
6:15 Warranty Prediction Talk
7:30 Networking

Register at http://www.pdma.org/chapter_events_detail.cfm?pk_event=439

Marcos Esterman is an Assistant Professor in the Industrial and Systems Engineering Department. His teaching interests are in product and process development, and systems engineering. He is director of the Print Research and Image Systems Modeling (PRISM) and the co-director of the Sustainable Print Systems Laboratories, which focus on the modeling of printer and imaging systems to support product architecture and business decisions. His research focuses on structured product development methods, with an emphasis of design for reliability and warranty, design robustness and sustainability. Prior to joining the RIT faculty, he worked for Hewlett-Packard's Imaging and Printing Division in Boise, Idaho. At HP, he held a variety of positions in manufacturing and R&D while concurrently conducting his PhD research. Marcos also worked as an x-ray tube development engineer at General Electric Medical Systems in Milwaukee, Wisconsin, and is a graduate of their Edison Engineering Training Program. In 2002, Marcos was awarded a PhD in Mechanical Engineering from Stanford University. Marcos earned his BSME in 1988 and MSME in 1990 from the Massachusetts Institute of Technology.

Hee-Rak Kang is a Master of Science student in the Industrial Engineering department at the Rochester Institute of Technology. He was previously a manufacturing engineer at Welch Allyn, located in Skaneateles, NY. Hee-Rak received his BS in Computer Engineering from Syracuse University. His current research focuses on warranty costs during product development.

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