The Multidimensional Information System for Human Reliability Assessment Applied to Patient Adherence

Tuesday, May 31, 2011 | 2:00 pm | DeWALT Seminar Room, 2164 Martin Hall

**ABSTRACT:** In complex and high-risk systems such as healthcare, human error is a critical issue due to the devastating patient health and financial consequences. Patient adherence (diet, exercise, medication, etc.) is of particular concern due to its impact on treatment outcome. The Multidimensional Information System for Human Reliability Assessment provides an empirically-driven and patient-centric methodology to determine the causal factors and manifestations of non-adherence, with the ultimate goal of informing risk mitigation decisions. The methodology was empirically built and validated for adherence to self-monitoring of blood glucose in diabetes patients. Results are presented with a suggested framework for clinical implementation and application to other high-risk systems.

**BIO:** Monifa Vaughn-Cooke is a Ph.D. Candidate in the Industrial and Manufacturing Engineering Department at The Pennsylvania State University. She received her B.S. in Biomedical Engineering and M.S. in Industrial and Systems Engineering from the University of Southern California in 2004 and 2006 respectively. Her research is focused on the interdisciplinary application of Human Reliability Assessment (HRA), systems engineering and design decision making tools to improve human performance in healthcare and other high-risk systems.

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