Announcing the Final Examination of Wanda Holmes for the degree of Doctor of Philosophy

Time & Location: January 20, 2012 at 10:00 AM in Engineering II 312
Title: TITLE: A RETROSPECTIVE ANALYSIS AND FIELD STUDY OF NANOTECHNOLOGY RELATED ERGONOMIC RISK IN INDUSTRIES UTILIZING NANOMATERIALS

The National Science Foundation estimates that two million skilled nanotechnology workers will be needed worldwide by 2015 — one million of them in the United States (2001). In the absence of scientific clarity about the potential health effects of occupational exposure to nanoparticles, guidance in decision making about hazards, risk, and controls takes on new importance. Currently, guiding principles on personal protective equipment for workers who come in contact with nanomaterials have not been standardized universally. Utilizing the NASA-TLX, this dissertation investigates the adequacy and shortcomings of research efforts that seek to determine whether or not occupational exposure to nanomaterials while wearing personal protective equipment (PPE) is or is not potentially frustrating to the worker. While wearing PPE does the worker perceive additional effort, performance, physical, mental or temporal demands are or are not impacted during task performance.

Major: Ergonomics Human Factors

Educational Career:
Bachelor’s of Psychology, BS, 1981, Douglas College, Rutgers University
Master’s of Management, MS, 2003, Rensselaer Polytechnic Institute

Committee in Charge:
Dr. Pamela Bush, Chair, Industrial Engineering and Management Systems
Dr. Mansooreh Mollaghasemi, Industrial Engineering and Management Systems
Dr. Seetha Raghavan, Mechanical Materials and Aerospace Engineering
Dr. Serge Sala-Diakanda, Industrial Engineering and Management Systems
Dr. Tareq Ahram, Graduate Faculty Scholar

Approved for distribution by Dr. Pamela Bush, Committee Chair, on January 1, 2012.

The public is welcome to attend.