Evacuation Performance & Modeling Group at Auburn University

Auburn graduate students recently formed an Evacuation Performance & Modeling Group to address human factors and performance issues in various evacuation scenarios. The group is advised by Drs. Jerry Davis and Gerry Dozier, and chaired by doctoral student, Rani Muhdi. Group members include doctoral students, Eric Cho and John Lesh, and masters students, Carlton Brown and Jason Rivers. Also, doctoral student, Aaron Garrett has contributed significantly. Group members are inspired by the influence and memory of Dr. Brian Carnahan. Dr. Carnahan brought many unique research applications to his students during his time at Auburn University.

Recent activities accomplished by group members include the submission of two conference papers, and the submission of two extramural grant applications seeking funding from the National Institute of Standards and Technology and the Department of Homeland Security. Additionally, Dr. Dozier is currently leading a discussion about research opportunities with NASA researchers involving evacuation of the Space Station.

Dr. Davis and a group of OS&G graduate students recently visited a nursing home to provide safety expertise in the field of emergency evacuation and preparedness, and the facility’s specific evacuation needs. When questioned about the significance of such a project, Mr. Muhdi stated, “One need not look further than the recent drowning deaths of 34 New Orleans nursing home residents during Hurricane Katrina, mine evacuation in West Virginia, or building evacuation in Poland to see the relevance of this research. My interests, and the interests of the group, are to ensure that those in leadership positions have the information needed to make important decisions.” Students are expected to benefit from this collaboration by applying safety and ergonomics concepts learned in the classroom-environment to real world challenges, and to contribute in promoting a safer environment.

Claudiu Lungu receives funding from NIOSH: Adsorption of Gas Phase Contaminants

Congratulations to Claudiu Lungu, PhD for receiving a grant from NIOSH to support research aimed at investigating the properties of Fibrous Porous Materials (FPM) relevant to their use in respiratory protection against gas phase contaminants. Dr. Lungu’s research will bring a better understanding of the Activated Carbon Fibers (ACF) process in general and the applicability of these materials for respiratory protection by investigating:

- The adsorption characteristics of FPMs for a number of gases, vapors and mixtures under dynamic conditions;
- The applicability of relevant adsorption models to predict the adsorption efficiency and service life of respiratory devices using FPMs; and
- The effect of fiber orientation and packing density on the pressure drop and adsorption efficiency of cartridges using FPMs.

ACFs present a series of advantages over Granular Activated Carbon (GAC) for the adsorption of gas phase contaminants, including better adsorption capacity and faster kinetics, but are much more expensive than GAC and have not been considered a viable alternative in respiratory protection. The development of a new ACF generation using non-expensive glass fibers as a substrate for carbonized phenolic resin makes ACF more competitive. New microporous composite materials have shown improved adsorption performance over GAC in the adsorption of a number of compounds. However, their use in respiratory protection has not yet been explored.

2006 Auburn University Industrial and Systems Engineering Alumnus of the Year

The Deep South Center for Occupational Health & Safety would like to congratulate Auburn Industrial and Systems Engineering graduate, Douglas B. Tambor, CSP, class of 1977, for receiving the 2006 ISE Alumnus of the Year Award. This award is given annually to a departmental alumnus with exceptional achievements. Doug currently serves as Executive Director, Worldwide Health and Safety Global HIV/AIDS Workplace Policy at Johnson & Johnson.

For more information on Douglas B. Tambor’s accomplishments, please click here.
Winter—Spring 2006 Schedule

Managing Trauma, Ocular Injuries & CPR/AED Training • Mar 10 • $125 • Birmingham, AL.— IT IS NOT TOO LATE TO REGISTER FOR THIS WORKSHOP!
ASSE Region IV Conference (co-sponsor) • Apr 20-21 • Birmingham, AL.
Just Writing Skills • May 4 • $60 • Birmingham, AL.
Confined Space & Trenching Programs for Municipalities • May 4 • $125 • Montgomery, AL.
OSHA Recordkeeping • May 5 • $60 • Montgomery, AL.
Respirator Fit Testing Workshop • May 22 • $125 • Cleveland, TN.
Spirometry Workshop for Refreshers • May 24 • $225 • Destin, FL.
Audiometric Testing for Refreshers • May 25 • $275 • Destin, FL.

Safety and health professionals who have excellent technical skills may lack the skills to communicate effectively with varied audiences. This one day workshop will give hands-on experience in writing memos, reports and emails. Through small group activities participants will gain experience in writing and editing written communication to produce a polished piece of communication.

Participants will be able to identify the intended audience for the communication and design a communication specifically for the audience. Upon completion of this workshop, participants will demonstrate clear editing skills for common grammatical and stylistic flaws and identify elements of effective email messages, memos and reports. Participants are encouraged to bring examples of their written communication pieces to class for critique. Comments from participants:

• Excellent presentation. Great exchange between class and instructor. • Great interaction between instructor and students.

The course director, Tom Fernekes, has over 20 years of solid experience in all aspects of management and leadership training. He has an exceptional ability to communicate well and has an energetic, motivational approach to teaching. In addition to his consulting work, Tom teaches English and Writing courses at Virginia College.

18 Annual OccMed Update
Sandestin Hilton
September 15-16, 2006

This year’s OccMed Update Keynote Speaker will be John Howard, MD, MPH, Director of NIOSH. Dr. Howard has lead NIOSH to new directions in research and in bringing research findings to practitioners. He will review the launch of the second decade of the National Occupational Research Agenda with an emphasis on the new area of nanotechnology. Other presentations from experts will address: Defending Workers’ Comp Claims, Case Studies in Occupational and Environmental Medicine, Medical Errors, Return to Work.

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