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Associate Professor of Industrial and Systems Engineering;
Human Factors Engineering

Founder and Director, Assessment and Cognitive Ergonomics (ACE) Laboratory
Director, Human Factors Engineering and Ergonomics Center
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Co-Director, Safety Engineering Laboratory
Co-Director, Human-Computer Interaction Laboratory

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Curriculum Vitae

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RESUME

EDUCATION

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- | | |
|------|--|
| 1998 | <p>Ph. D. Psychology/Ergonomics - North Carolina State University, Raleigh, NC</p> <p>Co-Advisors: Katherine W. Klein, Ph.D. and Sharolyn O. Converse, Ph.D. (Dept. of Psychology)</p> <p>Dissertation Title: <i>Irrelevant Speech, Verbal Task Performance, and Focused Attention: A Laboratory Examination of the Performance Dynamics of Open-plan Offices</i></p> |
| 1989 | <p>M.S. Psychology/Ergonomics - North Carolina State University, Raleigh, NC</p> <p>Advisor: Katherine W. Klein, Ph.D. (Dept. of Psychology)</p> <p>Thesis Title: <i>Effects of Body Consciousness on Perceptual Motor Task Performance</i></p> |
| 1986 | <p>B.A. Psychology - University of North Carolina - Chapel Hill, NC</p> <p>Advisor: John H. Schopler, Ph.D., (Dept. of Psychology)</p> <p>Senior Thesis Title: <i>Using computer-based scenario presentation to determine effects of Machiavellianism and Authoritarianism on Decision-making</i></p> |
| 1982 | <p>General Diploma (Advanced Studies)</p> <p>North Carolina School of Science and Mathematics – Durham, NC</p> |
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EXPERIENCE

- | | |
|----------------|---|
| 2008 – Present | <p>Scholar-in-Residence, Engineering Psychologist
 Human Factors Division, Engineering Sciences Directorate
 U.S. Consumer Product Safety Commission
 Bethesda, MD</p> |
| 2005 – Present | <p>Associate Professor of Human Factors Engineering
 Grado Dept. of Industrial and Systems Engineering
 Virginia Polytechnic Institute and State University, Blacksburg, VA</p> |

- 2005-Present **Associate Director**
Center for Innovation in Construction Safety and Health
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 2005 – Present **Director**
Human Factors Engineering and Ergonomics Center
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 2005 – Present **Adjunct Associate Professor of Psychology**
Dept. of Psychology
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 2006 – Present **Faculty Affiliate**
Meyers-Lawson School of Construction
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 2004 – Present **Faculty Affiliate**
Center for Human-Computer Interaction
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 2002 – Present **Faculty Affiliate**
Center for Gerontology
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 1999 – 2005 **Assistant Professor of Human Factors Engineering**
Dept. of Industrial and Systems Engineering
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 1999 – Present **Founder and Director, Assessment and Cognitive Ergonomics (ACE) Laboratory**, Co-Director: Safety Engineering Laboratory; Co-Director: Human-Computer Interaction Laboratory
Dept. of Industrial and Systems Engineering
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 1999 – 2005 **Adjunct Assistant Professor of Psychology**
Dept. of Psychology
Virginia Polytechnic Institute and State University, Blacksburg, VA
- 1999 – Present **Human Factors Forensics Consulting**
Litigation re: product and process safety; product and information design; risk communications.
- 1999 **Visiting Assistant Professor of Psychology**
Dept. of Psychology
North Carolina State University, Raleigh, NC
- 1998 – 1999 **Adjunct Assistant Professor**
Dept. of Psychology
North Carolina Wesleyan College, Rocky Mount, NC

- 1998 – 1999 **Research Associate**
Ergonomics Laboratory
North Carolina State University, Raleigh, NC
- 1998 **Research Assistant**
Ergonomics Laboratory
North Carolina State University, Raleigh, NC
- 1997 – 1998 **Human Factors Specialist, Usability & Interface Design**
Ericsson, Inc.
Research Triangle Park, NC
- 1993 – 1997 **Faculty**
College Transfer Department
Wake Technical Community College, Raleigh, NC
- 1992 – 1993 **Adjunct Faculty**
Southside VA Community College
Emporia, VA
- 1992 – 1993 **Public Health Educator and Medical Case Manager**
Halifax County Health Department
Halifax, NC
- 1992 – 1993 **Adjunct Faculty**
Halifax Community College
Roanoke Rapids, NC
- 1992 – 1993 **Manager, Army Community Services**
Goepingen and Schwabisch Gmuend
Federal Republic of Germany
- 1991 – 1992 **Adjunct Faculty**
City Colleges of Chicago – European Division, Federal Republic of
Germany
- 1990 – 1992 **Adjunct Faculty**
University of Maryland – European Division, Federal Republic of
Germany
- 1989 - 1990 **Faculty**
Jefferson Community College
Watertown, NY
- 1989 – 1990 **Human Factors Consultant**
Hester and Associates, Inc.
North Chatham, Massachusetts

1988 **Adjunct Faculty**
Johnston Community College
Smithfield, NC

1987 – 1988 **Human Factors Specialist; Software Usability & Interface Design**
IBM, Research Triangle Park, NC

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society of Safety Engineers
Human Factors and Ergonomics Society
Institute of Industrial Engineers
International Society for Occupational Ergonomics and Safety
National Society of Black Engineers
Society of Women Engineers

CURRENT APPOINTMENTS AND AFFILIATIONS

2008-present Program Chair, Forensic Professionals Technical Group, Human Factors and Ergonomics Society
2007-present New Mountain Climbers, Philanthropic Giving Circle
2007-present Community Group, Leadership Circle
2007-present Editorial Board, *Ergonomics in Design*
2006-2008 Chair, Human Factors and Ergonomics Society, Safety Technical Group
2006-present North Carolina Agromedicine Institute/Southern Coastal Agromedicine Center Internal Advisory Board.
2006-present AdvanceVT Executive Committee; Co-PI
2006-present Faculty Advisor, VT Chapter of the NAACP
2006-present Editorial Board/Associate Editor, *Journal of Experimental Psychology: Applied*.
2006-present Affiliate Faculty, Myers-Lawson School of Building Construction
2005-present Advisory Board, VT Child Development Center for Learning and Research
2003-present Affiliate Faculty, VT Center for Gerontology
2003-present Affiliate Faculty, VT Center for Human-Computer Interaction (Computer Science Dept.)
2002-present Faculty Advisor, American Society of Safety Engineers student chapter

HONORS

2009 College of Engineering Faculty Fellow
2008 *Dean's List for Teaching Excellence*, Academic Year 2007-2008 (College of Engineering)
2008 *Alexander C. Williams National Design Award*, Human Factors and Ergonomics Society (UPS System Safety Training/UPS Integrad™)
2008 *University Advancing Women Award*, VT Women's Center and University
2007 VT Top 20 Leading Research Collaborators (#18), FY 2007 (1st & 2nd Q)
2006 *Accessibility Research Award*, VT Office of ADA Compliance

2005	<i>Multicultural Fellow</i> , VT Office of Multicultural Affairs Award for Innovation in Teaching, VT College of Engineering
2004	<i>Faculty Member of the Year</i> , Black Graduate Student Organization (VT) University Diggs Teaching Scholar Award, VT
2003	Human Factors and Ergonomics Society Awards (VT Student Chapter): “ <i>Best Lecturer</i> ”, “ <i>Most Dynamic Professor</i> ”, <i>Best Advisor of the Year</i>
2001-2003	College of Engineering <i>Certificate of Teaching Excellence</i>
1997	<i>Preparing the Professoriate</i> Fellowship/Mentoring Program, North Carolina State University
1997	<i>John Oliver Cook Fellowship</i> , North Carolina State University
1997	<i>Women’s Achievement Award</i> , American Association of Women in Community Colleges
1988-1997	<i>PSI CHI Honor Society</i> , North Carolina State University
1995, 1988	<i>Awards for Academic Achievement in the School of Education and Psychology</i> , Association for the Concerns of African-American Graduate Students’
1991	<i>Command General’s Award for Outstanding Service</i> , US Army- European Division, Federal Republic of Germany

Workshops (Designed and Presented)

- a. Virginia Tech: Advisor/Advisee Relationships: 2003 – 2006: Conduct workshops for graduate students to establish positive and productive relationships with advisors. Communication skills/styles are one of the components in the workshop.
- b. King AbdulAziz University (Jeddah, Saudi Arabia): May 2007, June 2008. Faculty Communication Skills: Effective Communication, Team Communication, Social Influence Theory, Conflict Resolution, Written and Oral Communication Skills.
- c. USDA Food and Nutrition Summer Institute (Bethesda, MD): June 28, 2004. Human Participants in Research: Ethics and Issues. Research Triangle Park, NC.
- d. Toshiba Corporation of Japan (Ome, Japan): January 7, 2004. Universal Design.
- e. USDA Food and Nutrition Summer Institute (Bethesda, MD): July 21, 2003. Human Participants in Research: Ethics and Issues.
- f. 4th ErgoDesign Conference (Rio de Janeiro, Brazil): 2003: Design of Risk Communications.
- g. Yonsei University (Seoul, Korea): August 27, 2003. Three Requirements for Senior-Centered Design. 1st International Symposium on Clothing and Textile Sciences. Seoul, Korea.
- h. Roanoke Rapids Graded School District (Roanoke Rapids, NC): December, 2002. Human Factors Applications to Learning Systems Design, Roanoke, VA.
- i. Morning Plenary Address to the 12th Annual ABERGO Conference (Recife, Brazil): September, 2002. Cultural Ergonomics and Safety.
- j. Afternoon Plenary Address to the 12th Annual ABERGO Conference (Recife, Brazil). September, 2002. Research Methods in Cultural Ergonomics. Workshop/Continuing Education.

- k. Ford Motor Company Training Division. (Detroit, Michigan). 2001, Cognitive Ergonomics: It's all in the Mind. Training Systems Design and Assessment workshop.
- l. Student Success in Engineering Workshop (Blacksburg, VA). September 30, 2000. VT National Society of Black Engineers.
- m. Occupational Safety and Ethics Training (Blacksburg, VA). September 28, 2000.
- n. Roanoke College of Health Sciences (Roanoke, VA). February 8, 2000. Cognitive Ergonomics and Patient Safety to occupational therapy students.
- o. Motivating Learners (Raleigh, NC). October 1997. Active learning and effective teaching principles presented to Faculty at Wake Technical Community College.
- p. Certified American Red Cross Instructor (Roanoke Rapids and Raleigh, NC), 1992 – 1996. Provided hands-on training and certification to adults and teenagers on community Adult and Infant Cardiopulmonary Resuscitation and Baby Sitting.
- q. Halifax County Health Department (Halifax, NC): 1992 – 1993. Medical Case Manager and Public Health Educator. Administered the Ryan White HIV/AIDS Care Program. Developed medical and psychosocial case plans for clients. Provided public health education to the community regarding HIV/AIDS prevention and treatment. Conducted 4 community workshops per month. Trained volunteers on communication skills, organization, and legal issues.
- r. U.S. Federal Government Equal Employment Opportunity Office, Federal Republic of Germany (Goepfingen, FRG): 1990-1991. Provided workshops on equal employment and Affirmative Action policies; mediated conflicts to resolve system inequities that adversely impacted employees, planned and implemented workshops on sexual harassment, sex discrimination, and fair hiring and promotion practices, planned and implemented public events to celebrate Women's History Month.
- s. U.S. Federal Government Army Community Service (Goepfingen, FRG). (1990-1991). Acting Family Advocacy Manager. Provided education and referral services to families, developed plans for foster care, exceptional family members (disabilities care), and provided crisis intervention, mediation, and communication skills development in cases involving alleged child and spouse abuse.
- t. Hester and Associates (North Chatham, Mass.): 1990, Workshop on Teams and Communication Skills for mid-level managers in Watertown, New York. Communication style assessments including the Myers-Briggs Trait Inventory.
- u. Army Community Services, (Watertown, NY): 1989 – 1990, Conducted workshops on Systematic Training for Effective Parenting (STEP program) for over 100 families. Skills taught: Communication, conflict resolution, constructive discipline methods, positive child development.

GRADUATE COURSES COMPLETED

Structural Equation Modeling, Human Information Processing, Engineering Psychology of Human Computer Interaction, Statistics for the Behavioral Sciences I, Statistics for the Behavioral Sciences II, Special Studies in Industrial Engineering, Project Work in Industrial Engineering, Occupational Biomechanics, Tests and Measurements, Fundamentals of Skill (Human Performance Modeling), Human Factors in System Design, Ergonomic Performance Measurement, Psychological Survey Operations, Research Problems in Psychology, Area Seminar in Ergonomics, History and Systems of Psychology, Action Research in Psychology,

Stress and Coping, Visual Perception, Advanced Social Psychology, Innovation and Technology, Advanced Cognition, Psychology and the Afrikan Experience, Warnings and Risk Perception

RECENT PROFESSIONAL DEVELOPMENT ACTIVITIES

- July 2007: Inside Higher Education: How to Recruit Gen X Faculty Members (audioconference)
- July 2007: Skillpath, Inc. Leadership Development for Women
- June 2007: Skillpath, Inc. Leadership and Team Building
- June 2007: Advanced Statistics and Experimental Design using JMP
- February 2007: Skillpath, Inc., Effective Supervision
- February 2007: AdvanceVT, Leadership and Career Planning
- August 2006: AdvanceVT, Conflict Resolution
- August 2006: Advance VT, Anatomy of Power Building
- August 2005: AdvanceVT, Communication and Negotiation Skills
- July 2004: Faculty Development Institute, Developing and Delivering Online Courses for Distance Learning
- September 2004: VT Office of Research Compliance, Certification Training for Human Subjects Research
- October 2004: Human Factors and Ergonomics Society, Analytical Methods for Usability Predications
- October 2003: Developing and Manipulating ACCESS Databases
- March 2003: Center for Excellence in Undergraduate Teaching, Conducting Faculty Study Groups
- July 2002: MicroAnalysis and Design, MicroSaint Systems Simulation Training
- July 2001: Faculty Development Institute, Intermediate Web Development
- April 2000: Center for Excellence in Undergraduate Teaching, Learning Communities

TEACHING EXPERIENCE (COURSES TAUGHT)

Undergraduate courses in various areas of human factors: Human Factors, Statistics for the Behavioral Sciences, Research Methods, Occupational Safety and Health, Organizational Theory, Applied Psychology, Ergonomics, Individual Differences

Graduate courses: Human Factors/Ergonomics, Occupational Safety and Health, System Safety Analysis, Industrial Health and Safety Engineering, Human-Computer Interaction,

Cognition/Human Information Processing, Cognitive Ergonomics, Cultural Ergonomics, Macroergonomics, Research Methods/Action Research

Pedagogies Used in Teaching and Training: Inclusive Pedagogy, Paideia Methods, Social Constructivism, Engagement Pedagogy.

RESEARCH INTERESTS

- Safety information presentation and comprehension in occupational, recreational, and consumer settings.
- Warnings and Risk Perception in over-the-counter medications, consumer products, occupational and recreational settings.
- Universal design applications to consumer product development.
- Cultural Ergonomics: Application of culture-based trait and state factors to the design of safety information and other information displays (including user interfaces)
- Cognitive Ergonomics: Application of Human Information Processing principles to the design and evaluation of systems.
- Environmental factors affecting focused attention such as noise, open plan offices, and irrelevant speech.
- Diffusion of computing and Internet technologies across various groups.
- Inclusive, community-based STEM education and outreach.
- Community-University collaborative models.
- Design disparities.

RESEARCH AND SCHOLARSHIP

BOOKS

Smith-Jackson, T.L. (2010). *Cultural Ergonomics: Theories, Methods, & Applications*. Under Contract; London & Oxford, UK: CRC Press – Taylor and Francis.

PEER-REVIEWED JOURNAL ARTICLES

1. Smith-Jackson, T. L. and Essuman-Johnson, A. (2002). Cultural Ergonomics in Ghana, West Africa: A descriptive survey of industry and trade workers' interpretations of safety symbols. *International Journal of Occupational Safety and Ergonomics*, 8, 37 - 50.
2. Smith-Jackson, T.L. and Hall, T.E. (2002). Information order and sign design: A schema-based approach. *Environment and Behavior*, 34, 479 - 492.
3. Smith-Jackson, T. L. and Williges, R. C. (2001). User-centered design of tele-support systems. *Assistive Technology*, 13, 144 – 169.
4. Wogalter, M.S., Conzola, V.C., and Smith-Jackson, T.L. (2002). Research-based Guidelines for Warning Design and Evaluation. *Applied Ergonomics*, 33, 231-240.
5. Wogalter, M.S., Smith-Jackson, T.L., Mills, B.J., and Paine, C. S. (2002). Effects of Direct-to-Consumer Advertisement Format on Risk Knowledge and Preference. *Drug Information Journal*, 36, 693-705.

6. Smith-Jackson, T. L. and Wogalter, M. S. (2002). Potential Uses of Technology to Communicate Risk in Manufacturing. *Human Factors and Ergonomics in Manufacturing*, 14, 1 – 14.
7. Smith-Jackson, T. L., Nussbaum, M. A., and Mooney, A. M. (2003). Accessible cell phone design: Development and application of a needs analysis framework. *Disability and Rehabilitation*, 25, 549 - 560.
8. Smith-Jackson, T.L. and Wogalter, M.S. (2007). Application of a mental models approach to MSDS Design. *Theoretical Issues in Ergonomics Science*, 8, 303 – 319.
9. Soh, B.K. and Smith-Jackson, T.L. (2004). Influence of map design, individual differences, and environmental cues on wayfinding performance. *Spatial Cognition and Computation*, 4, 137 - 166.
10. Nam, C.S., Smith-Jackson, T. L., and Thomas, C. (2004). Effects of individual differences and task environments on users' interactions with web resource seeking. *Computers in Education*, 15, 79 - 92.
11. Lee, Y.S., Hong, S.W., Smith-Jackson, T.L., Nussbaum, M.A., and Tomioka, K. (2006). Systematic evaluation methodology for cell phone user interfaces. *Interacting with Computers*, 18, 304-325.
12. Nam, C.S. and Smith-Jackson, T.L. (2006). Web-based learning environments: A theory-based design process for development and evaluation. *Journal of Information Technology Education*, 6, 23 – 43.
13. Hughes, L. E., Babski-Reeves, K., & Smith-Jackson, T. (2006). Effects of psychosocial and individual factors on physiological risk factors for upper extremity musculoskeletal disorders while typing. *Ergonomics*, 50, 275 – 288.
14. Ryu, Y.S. and Smith-Jackson, T.L. (2006). Reliability and Validity of the Mobile Phone Usability Questionnaire (MPUQ). *Journal of Usability Studies*, 2, 39 - 53.
15. Ryu, Y.S., Babski-Reeves, K., Smith-Jackson, T.L., and Nussbaum, M.A. (2007). Decision models for comparative usability evaluation of mobile phones using MPUQ. *Journal of Usability Studies*, 3, pp. 24 – 40.
16. Kleiner, B.M., Smith-Jackson, T.L., Mills, T.H., O'Brien, M.J., and Haro, E. (2008). Design, development, and deployment of a rapid universal safety and health (RUSH) system for construction. *Journal of Construction Engineering and Management*, 134, pp. 273 – 279.
17. Howarth, J., Smith-Jackson, T., and Hartson, R. Supporting novice usability practitioners with usability engineering tools (in-press). *International Journal of Human-Computer Studies*.
18. Smith-Jackson, T.L. and Klein, K.W. (accepted: Nov. 2007). Open-plan Offices: Task performance and mental workload. *Journal of Environmental Psychology*. In-press.
19. Martin, C. and Smith-Jackson, T.L. (2008). Evaluation of pictorial assembly instructions for children. *Human Factors*, 50, pp. 652-662.
20. Smith-Jackson, T.L., Wogalter, M.S., Quintela, Y. (2009, in-press). Cultural ergonomics and the pesticide risk divide. *Human Factors and Ergonomics in Manufacturing*, in-press.
21. Yoo, H. S. and Smith-Jackson, T.L. (2009; accepted for publication). Colour Size Illusion on Liquid Crystal Displays and Design Guidelines for Bioinformatics Tools. *Behavior and Information Technology*.

PEER-REVIEWED PROCEEDINGS ARTICLES

1. Smith-Jackson, T.L., Kleiner, B.M., Artis, S., Hung, Y., Kim, H.N., Baldev, D. (2009). Safety climate barriers in small construction work systems. *Industrial Engineering Research Conference*. (Paper accepted on basis of abstract).
2. Rahmandad, H., Hu, K., Winchester, W., Smith-Jackson, T. (2009). Factors influencing falls risk in construction: A review of available evidence. *Industrial Engineering Research Conference*. (Paper accepted on basis of abstract).
3. Pyla, P., Perez-Quinones, E., Arthur, J., Smith-Jackson, T., Hartson, R., Hix, D. (2009). A case study in a systematic approach to evaluation. *Human-Computer Interaction International (HCII2009)*. (Paper accepted on basis of extended abstract).
4. Kim, S.J., Smith-Jackson, T.L., Carroll, K., Heard, K., Mi, N., Suh, M. (2009). Implications of a participatory design for a wearable near and far environmental awareness system (NaFEAS) for users with severe visual impairments. *Human-Computer Interaction International (HCII2009)*. (Paper accepted on basis of extended abstract).
5. Kwon, G., Smith-Jackson, T., and Bostian, C. (2009). Redefining interoperability: Understanding police communication task environments. *Human-Computer Interaction International (HCII2009)*. (Paper accepted on basis of extended abstract).
6. Yamaguchi, T., Johnson, S., Nam, C., Kim, H., Smith-Jackson, T. (2009). *Haptic science learning system for visually impaired students: A preliminary study*. *Human-Computer Interaction International (HCII2009)*. (Paper accepted on basis of extended abstract).
7. Kim, H. N., Nam, C. S., and Smith-Jackson, T. L. (2008). User Interface Design Guidelines for a Haptic-Thermal System for Visually Impaired Students in Obtaining Scientific Information. *The 4th International Conference on Social and Organizational Informatics and Cybernetics (SOIC 2008)*, Orlando, FL.
8. Lee, Y.S., Smith-Jackson, T.L., and Kim, H.N. (2008). Older adult users experience with mobile phones: A qualitative approach. *Proceedings of the Applied Human Factors and Ergonomics International Conference*. Las Vegas, NV, July 14 – 17, 2008.
9. Hughes, C., Lancaster, G., Smith-Jackson, T., Kleiner, M. (2008). Safety challenges in small, family-owned construction firms. *Proceedings of the International Society for Occupational Ergonomics and Safety*. Chicago, Illinois, June 11 – 12, 2008.
10. Hu, Y. and Smith-Jackson, T. (2008). Usability and learner motivation in online occupational safety training. *Proceedings of the International Society for Occupational Ergonomics and Safety*. Chicago, Illinois, June 11 – 12, 2008.
11. Smith-Jackson, T., Wogalter, M., and Quintela, Y. (2008). Cultural ergonomics and the pesticide risk divide. *Proceedings of the Applied Human Factors and Ergonomics International Conference*. Las Vegas, NV, July 14 – 17, 2008.
12. Terry, T., Burneo, P., Riofrio, J., and Martinez, C., and Smith-Jackson, T. (2008). Construction safety and informal training: A two-part study. *Proceedings of the Human Factors and Ergonomics 52nd Annual Meeting*.
13. Smith-Jackson, T. (2008). Self-Globalization: Strategies in HFES education, research, and practice. *Proceedings of the Human Factors and Ergonomics 52nd Annual Meeting*; (in-press).
14. Martin, C. V., and Smith-Jackson, T. L. (2008). *Children's experience with construction sets: Early warnings of engineering interest among girls?* In the Proceedings of the American Society of Engineering Education Annual Conference and Exposition, Pittsburgh, PA.

15. Kleiner, B.M., Smith-Jackson, T.L., Baldev, D., Artis, S., and Price, C. (2007). Influence of familial relationships on safety and health in informal construction work systems. *Proceedings of the 2007 Industrial Engineering Research Conference*, G. Bayraksan, W. Lin, Y. Son, and R. Wysk, eds., 1725-1730.
16. Taylor, G.D., Van Aken, E., and Smith-Jackson, T., Improving Organizational Climate Using Core Values. *Proceedings of the 19th International Conference on Production Research*, (J.A. Ceroni, Ed. on CD-ROM)File:\mswl\Papers\180.pdf, Valparaiso, Chile, July 29-Aug 2, 2007, 6 p.
17. Lee, W., Winchester, W., & Smith-Jackson, T. (2006) WARD: An Exploratory Study of an Affective Sociotechnical Framework for Addressing Medical Errors, *Human Factors and Ergonomics Society*, 1004 – 1008.
18. Lee, W., Winchester, W., & Smith-Jackson, T. (2006). WARD: An Exploratory Study of an Affective Sociotechnical Framework for Addressing Medical Errors. *Proceedings of the 44th Annual ACM Southeast Regional Conference*, Melbourne, FL. 377-382.
19. Kim, H. N., Nussbaum, M.A., Seol. S., Kim, S., and Smith-Jackson, T.L. (2006). Risk Assessment of Panelized Wall Systems in Residential Construction, *Human Factors and Ergonomics Society*, 2222 - 2226.
20. Artis, S., Baldev, D, Tucker, T., Kleiner, B., and Smith-Jackson, T. (2006). Using MEAD to analyze the safety training needs of self-employed construction businesses. In: *Proceedings of the Industrial Engineering Research Conference*. 6pp.
21. Kleiner, B.M., Smith-Jackson, T.L., and Haro, E. (2006). Formative Evaluation of a Rapid Universal Safety and Health (RUSH) System for Construction. *Human Factors and Ergonomics Society*, 1501 - 1505.
22. Kleiner, B.M., & Smith-Jackson, T. (2005). A socio-technical Approach to construction safety and health in the United States. Carayon, P.; Robertson, M.M., Kleiner, B.M. (eds.) *Human Factors in Organizational Design and Management VIII*, pp. 505 – 510. Santa Monica, CA: IEA Press.
23. Kleiner, B.M., Nieto, A., Nussbaum, M.A., Smith-Jackson, T., Songer, A., & Wakefield, R. (2005). A socio-technical systems approach to innovation in construction safety and health. *Industrial Engineering Research Conference*. Atlanta, Georgia, May, 2005.
24. Lee, Y.S., Jhangiani, I., Smith-Jackson, T.L., Nussbaum, M., and Tomioka, K. (2006). Design Considerations for Accessible Mobile Phones. *Human Factors and Ergonomics Society*, pp. 2178 - 2182.
25. Ryu, Y.S., Lee, Y.S., Smith-Jackson, T.L., Nussbaum, Tomioka, K. (2006). User-centered Design and Testing Methods for the Development of the Menu System for Mobile Phones. *Human Factors and Ergonomics Society*, 2183 - 2186.
26. Lee, W., Winchester, W., & Smith-Jackson, T. (2005) WARD: An Exploratory Study of an Affective Sociotechnical Framework for Addressing Medical Errors, *ACM SouthEast Conference*.
27. Smith-Jackson, T. L., Headen, E., Thomas, C., and Faulkner, B. (2005). Cultural critical incidents in hazardous occupations: A preliminary exploration. In P. Carayon, M. Robertson, B. Kleiner, and P.L.T. Hoonakker (eds.). *Human Factors in Organizational Design and Management – VIII*, pp. 479 – 484, Santa Monica, CA: IEA Press.
28. Nam, C.S., Kim, H., Smith-Jackson, T.L., and Scales, W. (2005). Culture and Cognition: Implications for Cognitive Design of Learning Resources. *Proceedings of the Human Factors and Ergonomics Society, 49th Annual Meeting*, pp. 1444 – 1448. Santa Monica, CA: Human Factors and Ergonomics Society.

29. Kim, H., Nam, C.S., Smith-Jackson, T.L., Scales, W. (2005). Culture-centered design guidelines for web-based tutorials. In A. Thatcher, T. James, and A. Todd (Eds.). *Proceedings of CyBergo 2005: The Fourth International Cyberspace Conference in Ergonomics*. Johannesburg: International Ergonomics Associate Press, 6 pages.
30. Kleiner, B.M. and Smith-Jackson, T. (2005). A sociotechnical approach to construction safety and health in the United States. In P. Carayon, M. Robertson, B. Kleiner, and P.L.T. Hoonakker (Eds.). *Human Factors in Organizational Design and Management – VIII.*, pp. 505 – 511. Santa Monica, CA: IEA Press.
31. Lee, Y.S. and Smith-Jackson, T.L. (2004). Effects of screen orientation and margin on reading with a handheld computer, *Proceedings of the Annual Meeting of the Human Factors And Ergonomics Society, New Orleans, LA, Sept. 20 – 24, 2004*.
32. Slater, C. and Smith-Jackson, T.L. (2004). Usability problems in consumer-directed broadcast advertisements of prescription medications. *Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society, New Orleans, LA, Sept. 20 – 24, 2004*.
33. Smith-Jackson, T.L. (2004). Cultural Ergonomics: Exploring Risk Disparities. *Proceedings of the International Society for Occupational Ergonomics and Safety, Houston, Texas, May 20-24, 2004*, pp. 106-109.
34. Smith-Jackson, T.L. (2004). Cultural Ergonomics Education and Training: Evaluation of a Learning Module. *Proceedings of the International Society for Occupational Ergonomics and Safety, Houston, Texas, May 20-24, 2004*, pp. 101-105.
35. Kwahk, J., Williges, R. W, and Smith-Jackson, T.L. (2003). A data-mining approach to obtaining user-required information for a Smart House application. *Proceedings of the 15th Triennial Congress of the International Ergonomics Association*, Seoul, Korea, 2003.
36. Martin, L. F., Smith-Jackson, T .L. and Artis, S. (2003). Cultural Differences in Risk Perception: Comparison of USA and Ghanaian Workers. *In Proceeding of the Human Factors and Ergonomics Society 47th Annual Meeting, 1762 - 1766*. (Denver, CO: USA). Santa Monica, CA: Human Factors and Ergonomics Society.
37. Smith-Jackson, T.L., Essuman-Johnson, A., Leonard, S.D. (2003). Symbol primes: Cross-cultural comparison of symbol representation. *Proceedings of the 15th Triennial Congress of the International Ergonomics Association*, Seoul, Korea, 2003.
38. Soh, B. K. & Smith-Jackson, T. L. (2003) Designing cues for recreational parks to support wayfinding behaviors. *Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting (pp.913-917)*. Human Factors Society: Santa Monica, CA.
39. Nam, C. S., Kim, H. N., Smith-Jackson, T. L., & Nussbaum, M. A. (2003). Development of a guidelines tool for mobile phone interfaces. *Proceedings of the Human Factors and Ergonomics Society's 47th Annual Meeting (pp. 792-796)*. Santa Monica, CA: Human Factors and Ergonomics Society.
40. Thomas, C.T., Nam, C.S., and Smith-Jackson, T.L. (2003). The significance of behavior type on Web information retrieval and academic success. *Proceedings of the 2003 American Society for Engineering Education Annual Meeting and Exposition*.
41. Smith-Jackson, T. L., Leonard, S.D., and Essuman-Johnson (2003). Comparison of USA and Ghanaian Interpretations of Prohibition and “To-Do” symbols. *International Society for Occupational Ergonomics and Safety*.
42. Ryu, Y.S., Williges, R.C., Smith-Jackson, T.L., and Kwahk, J. (2002). Comparison of design requirements methods for monitoring eating patterns of seniors in a smart house. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*, pp. 844-848.

43. Mooney, A. M., Nussbaum, M. A., and Smith-Jackson, T. L. (2002). Universal Access in Practice: Usability Evaluation of Cellular Telephones for Users with Disabilities. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*, pp. 695 - 699.
44. Smith-Jackson, T.L., Wogalter, M.S., and Shaver, E. (2002). Road Rage: User-reported antecedents and possible solutions. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*, pp. 920 - 924.
45. Kwahk, J., Smith-Jackson, T.L., and Williges, R.C. (2002). An application of neural network modeling to diagnose eating behavior of seniors. *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*, pp. 180 - 184.
46. Smith-Jackson, T. L. (2002). Child-centered safety research issues. *Proceedings of the 16th Annual International Society for Occupational Ergonomics and Safety Conference*.
47. Artis, S. and Smith-Jackson, T. L. (2002). Cultural differences in risk perception. *Proceedings of the 16th Annual International Society for Occupational Ergonomics and Safety Conference*.
48. Brown, S. and Smith-Jackson, T. L. (2002). Behavior When Using Child's Meal Toys: An Observational Study. *Proceedings of the 16th Annual International Society for Occupational Ergonomics and Safety Conference*.
49. Kwahk, J., Smith-Jackson, T. L., and Williges, R.C. (2001). From User-centered design to senior-centered design: Development of a health information portal for seniors. *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting*, pp. 580-584.
50. Smith-Jackson, T.L. and Wogalter, M.S. (2000). Users' hazard perceptions of warning components: An examination of colors and symbols. *Proceedings of the 14th Triennial Conference of the IEA/HFES*, 6, pp. 55 - 58.
51. Smith-Jackson, T. L. and Wogalter, M.S. (2000). Applying cultural ergonomics to safety information research. *Proceedings of the 14th Triennial Conference of the International Ergonomics Association and the 44th Annual Meeting of the Human Factors and Ergonomics Society*. Santa Monica, CA: Human Factors and Ergonomics Society, 6, pp. 150 – 153.
52. Smith-Jackson, T. L. and Durak, T. (2000). Posted warnings, compliance, and behavioral intent. *Proceedings of the 14th Triennial Conference of the International Ergonomics Association and the 44th Annual Meeting of the Human Factors and Ergonomics Society*. Santa Monica, CA: Human Factors and Ergonomics Society, Volume 4, pp. 115 – 118.
53. Smith-Jackson, T. L., Balasubramanian, V., and Sridharan, S. (2000). Descriptive survey of household product warning labels and consumer knowledge. *Proceedings of the 14th Triennial Conference of the IEA/HFES*, 814 – 817.
54. Smith-Jackson, T. L. and Williges, R. C. (2000). The Role of Needs Assessment and Remote Usability Methodology in Designing Telesupport Systems for Users with Disabilities. *Rehabilitative Engineering and Assistive Technology Society of North America (RESNA) 2000 Proceedings*, 564 - 569.
55. Wogalter, M., Paine, C., Mills, B., and Smith-Jackson, T. (1999). Application of cognitive principles to the design of Direct-to-Consumer advertising of prescription medications. *Proceedings of the 43rd Annual Human Factors and Ergonomics Society*, 515-519.
56. Smith-Jackson, T. (1998). Focused Attention in the Context of Irrelevant Speech. *Proceedings of the 42nd Annual Human Factors and Ergonomics Society*, 806-810.
57. Smith-Jackson, T. and Wogalter, M. (1998). Preferred Order of MSDSs: A user-centered approach. *Proceedings of the 42nd Annual Human Factors and Ergonomics Society*, 1073-1077.

58. Jackson, C. and Smith-Jackson, T. (1998). PTAP: A PC-based proofreading task for examination of verbal information processing. *Proceedings of the 42nd Annual Human Factors and Ergonomics Society*, 1158.
59. Jackson, T. and Klein, K. (1997). Body consciousness and situation awareness in perceptual motor systems. *Proceedings of the 41st Annual Human Factors and Ergonomics Society*, 599-603.
60. Jackson, T., Klein, K., and Wogalter, M. (1997). Open-plan office designs: An examination of unattended speech, performance, and focused attention. *Proceedings of the 41st Annual Human Factors and Ergonomics Society*, 509-513.
61. Jackson, T.S. and Wogalter, M. S. (1997). Discontinuous speech increases perceived difficulty of a language-based task. *Silicon Valley Ergonomics Conference and Exposition, May 1997*. 93 – 97.
62. Jackson, T. S. (Sept. 1996). Trait individual differences and perceptual motor performance. *In Proceedings of the Human Factors and Ergonomics Society 40th Annual Meeting*. Santa Monica, CA: Human Factors and Ergonomics Society.

BOOK CHAPTERS

63. Johnson, K. T. and Smith-Jackson, T.L. (2009). A human factors view of the digital divide. *Overcoming Digital Divides: Constructing an Equitable and Competitive Information Society*. In E. Ferro, Y. Dwivedi, J Gil-Garcia, M. Williams (Eds). *Handbook of Research on Overcoming Digital Divides: Constructing an Equitable and Competitive Information Society*; In press, July 2009.
64. Smith-Jackson, T.L. (2006). Receiver characteristics. In M.S. Wogalter (Ed.) *Handbook of Warnings*. Mahwah, NJ: Lawrence Erlbaum, pp. 335-343
65. Smith-Jackson, T. L. (2006). Culture and Warnings. In M.S. Wogalter (Ed.) *Handbook of Warnings*. Mahwah, NJ: Lawrence Erlbaum, pp. 363-372
66. Smith-Jackson, T.L. and Wogalter, M.S. (2006). Warning Research Methodology. In M.S. Wogalter (Ed.) *Handbook of Warnings*. Mahwah, NJ: Lawrence Erlbaum, pp. 23-34.
67. Smith-Jackson, T. L. (2005). The Cognitive Walkthrough Method. In H. Hendrick (Ed.), *Handbook of Human Factors and Ergonomics Methods*, Boca Raton, Florida, CRC Press, pp. 82.1 – 82.7.
68. Swallow, D.W., Lindberg, R. M., and Smith-Jackson, T. L. (2004). System Safety Principles and Methods. In H. R. Booher (Ed.), *Human Systems Integration Handbook*. New York: Wiley Interscience, pp. 497 - 540.

SUBMITTED, UNDER REVIEW

Artis, S., Evia, C., Smith-Jackson, T., and Kleiner, B. (2008). Practical approaches for conducting participatory safety training with Hispanic/Latino Construction Workers. *Journal of Construction Management*.

Smith-Jackson, T.L., Kleiner, B.M., Baldev, D., Artis, S., and Hughes, C. (2008). Training Needs Analysis for Informal Construction Work Systems. *Applied Ergonomics*.

Smith-Jackson, T., Carroll, K., Kim, S.-J., Suh, M., Ryu, Y.S.. (2009). Enabling Older Adults with Visual Impairments to Interact at Social Events. *Gerontechnology Journal*.

INVITED PRESENTATIONS

1. Smith-Jackson, T.L. (2008). From Forensics to Research: Cases of MSDSs and Pharmaceutical Risks. *Proceedings of the Applied Human Factors and Ergonomics International Conference*. Las Vegas, NV, July 14 – 17, 2008.
2. Ryu, Y.S., Babski-Reeves, K., Smith-Jackson, T.L., and Nussbaum, M. (2007). Enhancing the mobile phone usability questionnaire (MPUQ) with a multi-criteria decision making method. *HCI International 2007*; poster.
3. Smith-Jackson, T. L. (November 2, 2007). Inclusive Engineering: *Designing Warnings and Risk Communications for the Other 80%*. IE Distinguished Speaker Series, Department of Industrial Engineering, Mississippi State University.
4. Y. S. Ryu, K. Babski-Reeves, T. L. Smith-Jackson, and M. A. Nussbaum. (2007). Enhancing the Mobile Phone Usability Questionnaire (MPUQ) with a Multi-criteria Decision Making Method. In *Proceedings of Human Computer Interaction International 2007*. Posters, 95-99. Beijing, China.
5. Pyla, P., Hartson, R., Arthur, J., Smith-Jackson, T., and Perez-Quinones, M. (2007). Increasing the Impact of Usability Work in Software Development, CHI 2007 Workshop.
6. Shapiro, R.G., Artis, S., Smith-Jackson, T.L., Meyer, A.E., Naga, J.T.B. (2006). Games to Explain Human Factors: Come, Participate, Have Fun!!! 50th Annual Meeting of the Human Factors and Ergonomics Society.
7. Smith-Jackson, T. L. (December 19, 2005). Oral testimony presented to NIOSH Town Hall on the National Occupational Research Agenda (NORA) for the next decade; Chicago, Illinois, Docket ID: NIOSH-0470-w325. Online: <http://www2a.cdc.gov/niosh-comments/nora-comments/noracmtsdetail.asp?area=Construct&id=325&rcdid=42>
8. Race and Social Policy Research Center (November 12, 2004). *Fighting the Good Fight: Overcoming scientific bigotry and exclusionary research practices*.
9. USDA Food and Nutrition Summer Institute (June 28, 2004). *Human Participants in Research: Ethics and Issues*. Research Triangle Park, NC.
10. USDA Food and Nutrition Summer Institute (July 21, 2003). *Human Participants in Research: Ethics and Issues*. Bethesda Maryland.
11. Smith-Jackson, T. L. (2003). 4th ErgoDesign Conference, Rio de Janeiro, Brazil.
12. Smith-Jackson, T.L. (August 27, 2003). Three Requirements for Senior-Centered Design. 1st International Symposium on Clothing and Textile Sciences, Yonsei University, Seoul, Korea.
13. Smith-Jackson, T. L. (July 20, 2003). Human Subjects in Research: Ethics and Issues. Human Nutrition Research Center, Beltsville, Maryland.
14. Smith-Jackson, T. L. (Jan. 7, 2004). Universal Design. Toshiba Corporation of Japan, Ome, Japan.
15. Smith-Jackson, T. L. (2003). Culture-based Risk Mental Models: Overview of methods to develop culturally-centered safety information. Anais Do, *Proceedings of the 3rd International ErgoDesign Conference*, Rio de Janeiro, Brazil, June 5 – 6, 2003.
16. Smith-Jackson, T. L. (2002). *Human Factors Applications to Learning Systems Design*. Roanoke Rapids Graded School District, December 2002.
17. Smith-Jackson, T. L. (2002). *Cultural ergonomics and Safety*. Plenary Address to the 12th Annual ABERGO Conference, Recife, Brazil, Sept. 2002.
18. Smith-Jackson, T.L. (2002). *Research Methods in Cultural Ergonomics*. Workshop/Continuing Education, 12th Annual ABERGO Conference, Recife, Brazil, Sept. 2002.

19. Smith-Jackson, T. L. (2001). *Cognitive Ergonomics: It's all in the mind*. Workshop presented to the Ford Motor Company's Training Division. Offered through Virginia Tech Continuing Education.
20. Robert C. Williges, Jiyoung Kwahk, and Tonya L. Smith-Jackson. University of Virginia School of Medicine *Growing Younger: A Conference on Medical Technologies*, Presentation of Remote Needs Assessment and Usability Research..
21. September 30, 2000: *Student Success in Engineering*, National Society of Black Engineers.
22. September 28, 2000: *Occupational Safety and Ethics*. Engineering Ethics course in Engineering Fundamentals
23. October 12, 2000: *Cognitive Ergonomics in Systems Design*. Lecture in ISE Integrated Systems Design course.
24. February 8, 2000: Presented to Occupational Therapy students from the Roanoke College of Health Sciences, re: *Cognitive ergonomics and patient safety*.

OTHER PAPERS AND REPORTS

1. Smith-Jackson, T., Kleiner, B., Artis, S., Hughes, C., and Lancaster, G. (2008). Informal training in small construction work systems. Fourth Annual Meeting of the National Occupational Injury Research Symposium, October 21 – 23, 2008; Pittsburgh, PA.
- Lee, W., Winchester, W., & Smith-Jackson, T. (2005) WARD: An Affective Sociotechnical Framework for Addressing Medical Errors, *IIE Annual Conference*.
2. Smith-Jackson, T.L., Nussbaum, M.A., Lee, Y.S., and Hong, S.W. (2003). *Usability Inspection, Testing, and Evaluation of Cellular Phone Interfaces*. Toshiba Corporation of Japan.
3. Smith-Jackson, T.L. (2003). *Follow-up Care Assessment Survey: Results and Requirements Determination*. Woodrow Wilson Rehabilitation Center.
4. Smith-Jackson, T.L. (2003). Culture-based Risk Mental Models: Overview of Methods to Develop Culturally-centered Safety Information. Anais Do, *Proceedings of the 3rd International ErgoDesign Conference*, Rio-de Janeiro, Brazil (June 5-6, 2003).
5. Smith-Jackson, T.L., Mooney, A., Nussbaum, M.A (2002). *Accessibility of Cellular Phones: Design Recommendations*. Toshiba Corporation of Japan.
6. Mooney, A., Nussbaum, M.A., Smith-Jackson, T.L (2002). *Accessibility of Notebook Computers: Issues and Recommendations*. Toshiba Corporation of Japan.
7. Smith-Jackson, T.L., Soh, B.K., and Keer, M. (2002). *Evaluation of the Jefferson National Forest Sign and Trail System* (Technical Report #ACE 006-2002).
8. Hall, T.E. and Smith-Jackson, T.L. (2001). *Evaluation of the National Park System Sign Format and Design* (Technical Report). Department of Forestry, Blacksburg, VA.
9. Smith-Jackson, T.L. and Hall, T.E. (2001). *Evaluation of the National Park System Sign Format and Design: Preliminary Development Activities for the National Park Service Evaluation Project* (Tech Report ACE-003-2001). Grado Department of Industrial and Systems Engineering, Blacksburg, VA.
10. Smith-Jackson, T.L., Mooney, A., and Nussbaum, M.A. (June, 2001). *Survey on Technology Needs of Disabled Persons* (Technical Report: Toshiba Corporation). Grado Department of Industrial and Systems Engineering, Blacksburg, VA.
11. Smith-Jackson, T.L., Williges, R.C., Kwahk, J., Capra, M., Durak, T., and Nam, C.S., Ryu, Y.S. (2001). *User Requirements Specification for a Prototype Health Care Information Web Site and Online Assessment Tool* (Tech. Report ACE/HCIL-01-01). Grado Department of Industrial and Systems Engineering, Blacksburg, VA.

12. Williges, R.C., Smith-Jackson, T.L., and Kwahk, J. (July, 2001). *User-centered Design of Telesupport Systems for Seniors* (Tech Report HCIL/ACE-01-02). Grado Department of Industrial and Systems Engineering, Blacksburg, VA.
13. Smith-Jackson, T.L. (1999). Cultural Human Factors/Ergonomics: Are We Practicing a Culture of Avoidance? *Individual Differences in Performance News, Vol 12 (2)*, 2 and 5.
14. Jackson, T.S. (1988). *Alternative Testing Strategies for Information Products* (Technical Report: IBM). Research Triangle Park, NC: International Business Machines.
15. Smith-Jackson, T.L. (1998). Wanted: Universal Access. *BDPA Triangle Journal, 1, 2*.

SPONSORED RESEARCH

GRANT APPLICATIONS AND AWARDS (Funded)

- 4/15/09 – 3/31/12: REU: Cognitive Communications. National Science Foundation. **\$350,562**. PI: Bose; coPI: Smith-Jackson.
- 1/15/09-6/30/09: Sensemaking in Command and Control. Army Research Office. **\$25,000**. PI: Smith-Jackson, subcontract: North Carolina A & T State University.
- 1/4/09 – 6/30/09: Accessible Smart Phones. Toshiba Corporation of Japan. **\$30,000**. PI: Smith-Jackson; coPI: Nussbaum.
- 8/15/08 – 8/14/09: Embodied Interaction Paradigm for Users with Severe Visual Impairments. National Science Foundation. **\$95,000**, PI: Smith-Jackson, Co-PI: Quek, Co-PI: Carroll (subcontract to NC State University).
- 6/1/08 – 12/31/08: Research Experiences for Teachers (Supplemental Grant); Work Organization in Logistics for Workers with Disabilities. National Science Foundation (through the Center for Engineering Logistics and Distribution (CELDi)). **\$20,000**; PI: Ellis; Co-PI: Smith-Jackson.
- 4/18/08 – 10/31/08. Compensation and Usability to Reduce Hyperstereopsis in Target Acquisition. ITT Night Vision. **\$450,000**. PI: Inge, Co-PIs: Lockhart, Smith-Jackson, and Sturges.
- 2/1/08 – 1/31/09. A Prototype Public Safety Cognitive Radio for Universal Interoperability., National Institute of Justice. PI: Bostian (ECE), Co-PIs: M. Hsiao, A. McKenzie, T. Smith-Jackson; **\$500,000**.
- 9/1/07 – 8/31/10. Innovative Flexible Experimental Environment for Learning in Science (I FEEL SCIENCE), National Science Foundation. PI: Chang Soo Nam, University of Arkansas; co-PI: Tonya Smith-Jackson; **\$570,000**.
- 2/1/07 – 1/31/08. A Prototype Public Safety Cognitive Radio for Universal Interoperability., National Institute of Justice. PI: Bostian (ECE), Co-PIs: M. Hsiao, A. McKenzie, T. Smith-Jackson; **\$725,000**.
- 8/1/06-present AdvanceVT Women in Science and Engineering, National Science Foundation. Co-PI, added after grant was funded (PI: Provost Mark McNamee); 5 year award (2003); **\$2,877,970**.
- 7/1/06 – 6/30/07 Occupational Safety and Health Training Grant, NIOSH. PI: Nussbaum; Co-PIs: Smith-Jackson, Babski-Reeves, Casali, Kleiner, Lockhart; **\$60,050**.
- 6/1/06 – 12/31/07 New Mountain Climbers, **\$750**; Science and Mathematics Inclusive Learning and Engagement, Community Collaboration.
- 9/15/06 – 8/30/07 United Parcel Service; DSP Safety Training System, **\$40,000**; PI: Smith-Jackson, Co-PI: Kleiner.
- 6/8/06 – 11/1/07: United Parcel Service; DSP Safety Training System, **\$450,000**, 6/8/06 – 11/1/07. VT-PI: Smith-Jackson; MSU-PI: Babski-Reeves, co-PIs: Casali, Kleiner, Lancaster, Lockhart, Nussbaum, Winchester.

- 1/06-12/09 NSF-Computer and Research Infrastructure: Interfaces for the Embodied Mind; 1/1/06 – 12/31/09; Funded at **\$200,000**. PI: Quek; Senior Personnel, Smith-Jackson (5%) and others.
- 5/2005 – 02/2006 Toshiba Corporation of Japan, Needs Analysis and Requirements Acquisition for Inclusive Design of Cell Phones: UK and Germany. Toshiba Corporation. PI: Smith-Jackson (60%), Co-PI: Nussbaum (40%); **\$58,461**.
- 7/2004 – 6/2006 Occupational Safety and Health Training Grant, NIOSH. PI: Nussbaum; Co-PIs: Smith-Jackson, Casali, Babski-Reeves, and Lockhart; **\$60,049**.
- 2004 – 2009 Army Research Office/W911NF-04-R-0004 Center for Excellence for Battle Capability Enhancement, **\$2,491,476**; NC A & T State University Center Grant; PI: Celestine Ntuen, Co-PIs: Several (10% Responsibility); Project Grant (2004 – 2006): **\$60,001**, PI: Smith-Jackson (100% Responsibility): Human Engineering Research in Cognition: Sensemaking.
- 2004 – 2009: National Institute for Occupational Safety and Health, \$3,250,000; PI: Kleiner, Co-PIs: Nieto, Nussbaum, Smith-Jackson, Wakefield (9.67% Responsibility, **\$223,817**); Center for Innovation in Construction Safety and Health.
- 2004 – 2007 National Institute for Occupational Safety and Health, **\$273,840**, PI: Smith-Jackson (60% Responsibility-**\$164,304**), Co-PI: Kleiner. Training Needs Analysis of Informal Construction Work Systems.
- National Institute for Occupational Safety and Health, “Occupational Safety and Health Training Grant”, 2004. **\$60,049**. Nussbaum, M.A. (PI), Smith-Jackson, T.L. (30% Responsibility), Babski-Reeves, K.L., Casali, J.G., and Lockhart, T.E. (Co-PIs). 07/01/04-06/30/05. Non-competing renewal.
- National Institute for Occupational Safety and Health, “Occupational Safety and Health Training Grant”, **\$51,173**, 7/1/02- 6/30/03, Responsibility: 30%, PI: Maury Nussbaum, Co-PIs: Smith-Jackson, Babski-Reeves, Casali, Lockhart. Non-competing renewal.
- National Institute for Occupational Safety and Health, “Occupational Safety and Health Training Grant”, **\$49,000**, 7/1/01- 6/30/02, Responsibility: 30%, PI: Maury Nussbaum, Co-PIs: Smith-Jackson, Babski-Reeves, Casali, Lockhart. Non-competing renewal.
- Toshiba Corporation, “Design, Testing and Verification of the Cellular Phone Navigation System”, 2004. **\$60,049**. Smith-Jackson, T.L. (PI, 60% Responsibility) and Nussbaum, M.A. (Co-PI).
- National Science Foundation, “Identification and Modeling of the Culture-based Risk Mental Model”, 2003-2004. **\$93,664**. Smith-Jackson, T.L. (PI, 100% Responsibility)
- Toshiba Corporation, “Evaluation of Cell Phone Usability and Accessibility”, 2002-2003. **\$44,410**. Smith-Jackson, T.L. (PI, 50% Responsibility) and Nussbaum, M.A. (Co-PI).
- National Institute for Occupational Safety and Health Agromedicine Grant, “Cultural Ergonomics Applied to Pesticide Exposures”, 2001-2004. **\$188,885**. Smith-Jackson, T.L. (PI, 70% Responsibility), Wogalter, M.S. (Co-PI).
- Virginia Department of Rehabilitation Services and Woodrow Wilson Rehabilitation Hospital, “Improving Community-based Follow-up Services for Long-term Health Maintenance Needs of Persons with Spinal Cord Injury”, 2001-2003. **\$45,100**. Smith-Jackson, T.L. (PI, 100% Responsibility).
- Carilion Biomedical Institute, “Design of a Smarthouse Interface using Neural Network Modeling”, 2001-2002. **\$59,000**. Williges, (PI) and Smith-Jackson (Co-PI, 60% Responsibility).

- Toshiba Corporation, “Requirements Capture for Cell Phone Usability”, 2001-2002.
\$26,828. Nussbaum, M.A. (PI), Smith-Jackson, T.L. (Co-PI, 50%, Responsibility).
- Toshiba Corporation, “Survey of Cell Phones and PCs for Accessibility”, 2001-2002.
\$25,535. Nussbaum, M.A., (PI) and Smith-Jackson, T.L. (Co-PI, 50% Responsibility).
- Carilion Biomedical Institute, “Development of a Senior-Centered Health Information Website”, 2000-2001. **\$66,000.** Williges (PI) and Smith-Jackson, T.L. (Co-PI, 75% Responsibility.)
- National Park Service, “Evaluation and Testing of the NPS Sign Design”, 2000-2001.
\$106,149. Smith-Jackson, T.L. (PI; 100% Responsibility).

External Funding Prior to 1999:

- 1993 – 1994 Z. Smith-Reynolds Foundation, Better Life, Incorporated Public Radio and Community Education, **\$18,000.** PI: Smith-Jackson.
- 1994 – 1995 Z. Smith-Reynolds Foundation, Better Life, Incorporated Public Radio and Community Outreach, **\$25,000.** PI: Smith-Jackson.

Internal Funding:

- State Council for High Education: **\$9000.** Wayfinding System for Users with Severe Visual Impairments.
- Virginia Tech Office for Outreach and International affairs, **\$2500.** April 2008 – December 2008: International Development Grant to Establish the TIES Program: Transdisciplinary and Inclusive Engineering and Science Tools to transfer human factors knowledge to West Africa.
- Virginia Tech Office for Outreach and International Affairs, 2005 – 2006. **\$4500;** Science and Mathematics Inclusive Learning and Engagement, Multidisciplinary Collaboration.
- Virginia Tech Center for Gerontology, 2005. **\$4200** Smith-Jackson, T.L. (75% responsibility) and Dwyer, S. Cultural Barriers to the use of Blood Glucose Monitors by Older Adults.
- Virginia Tech Student Success Grant (Internal VT Award). 2002-2003. **\$13,000.** Smith-Jackson, T.L. (PI) 100%.
- Virginia Tech Student Success Grant (Internal VT Award). 2001-2002. **\$14,000.** Smith-Jackson, T.L. (PI) 100%.
- ASPIRES/VT Distance Learning for GPS Education (Internal VT Award). 2003-2005. **\$165,000.** Scales (PI), Smith-Jackson, T.L. (Co-PI, 50% Responsibility).
- ASPIRES/VT Drive Simulator for Collaborative Research. 2003. **\$30,000.** PI: E. Scott Geller, Co-PIs: Helen Crawford, Tonya Smith-Jackson (33% Responsibility).
- CEUT Summer Faculty Fellows (Internal VT Award). 2000. **\$5,000.** Smith-Jackson, T.L. (PI) 100%.

UNIVERSITY AND PROFESSIONAL SERVICE

- 2007 – 2008: Member, National Academies/Institute of Medicine Review Panel on NIOSH Research, Personal Protective Technologies
- 2007 – present: Associate Editor, Ergonomics in Design
- 2005-2007 Grado Dept. of ISE Safety Committee; Honors and Awards Committee

- 2007, 2008: American Society for Engineering Education (ASEE) National Defense Science and Engineering Grant Reviewer.
- 2006 – present: Editorial Board/Associate Editor, *Journal of Experimental Psychology: Applied*.
- 2006 – 2007: Task Force on Race and the Institution, VT.
- 2006 – 2008: National Chair, Safety Technical Group, Human Factors and Ergonomics Society.
- 2005 - 2007: National Chair, Diversity Committee, Human Factors and Ergonomics Society
- 2005- present: Multicultural Fellow, Office of Multicultural Affairs, VT.
- 2004: Editorial Board, Handbook of Warnings.
- 2003 – 2005: ISE Coordinator: Faculty Study Groups, College of Engineering
- 2003 – present: Work Groups: Retention and Pipeline: ADVANCEVT Women in Engineering and Science; Co-PI and Executive Committee Member, AdvanceVT.
- May 2004 – 2006. Newsletter Editor, International Society for Occupational Ergonomics and Safety.
- June 2004 – 2006. Secretary-Treasurer, Safety Technical Group, Human Factors and Ergonomics Society.
- August 2002 – Present: Journal Reviewer, *IEEE Transactions on Systems, Man, and Cybernetics*
- May 2005 – Present: Journal Reviewer, *Risk Analysis*
- January 2003 – Present: Journal Reviewer, *Gerontechnology*
- August 2001 – Present: Journal Reviewer, *International Journal of Systems Science*;
- February 2004 – Present: Journal Reviewer, *International Journal of Industrial Ergonomics*
- 2002 Book Reviewer: *Ergonomics in Design*
- 2003 Book Reviewer: *User Interfaces for All*
- Contributor 2002-2003: *American Psychological Association Dictionary of Terms* (Ergonomics Section).
- August 2000 – Present: Faculty Advisor, American Society of Safety Engineers.
- August 2002-2003: Personnel Committee, Grado Department of ISE, Virginia Tech
- August 2003-Present: Safety Committee, Grado Department of ISE, Virginia Tech
- April 2002 – December 2002: Dean’s Search Committee for the College of Engineering, Virginia Tech.
- October 2000 – Present: Chair, Future Professoriate Program Ad Hoc Committee, ISE
- October 2000 – September 2001: Served on the Undergraduate Curriculum Committee, the Professoriate Training Committee, an ad hoc committee to prepare graduate students for academic careers. Also served on the COE Laptop Requirement Feasibility Committee during the Spring of 2001.
- Served on a multidisciplinary team of 5 faculty members (Industrial Design, Architecture and Urban Studies, Near Environments) to explore plans and funding to establish a Center for Universal Design.
- Fall 1999 – September 2000: Active on 2 departmental committees, one standing committee and one ad hoc committee. In addition to campus activities, I am also active in national and international professional societies and committees, as well as community-empowerment activities.
- Human Factors and Ergonomics Society: Chair of Human Factors and Child Safety Symposium, 42nd Annual Meeting (October 2001)

- Society for Environmental Graphic Design (SEGD); Representative to the ANSI-ASC-Z-535 Committee, National Electrical Manufacturers Association
- American Society for Engineering Education
- American Psychological Association, Division 21: Applied Experimental and Engineering Psychology
- Undergraduate Curriculum Committee, Virginia Tech ISE Department
- Departmental Ad Hoc Committee on Developing a Professoriate Training Program
- ISE Department Safety Committee (2002-Present)
- Volunteer, 41st Annual Meeting of the Human Factors and Ergonomics Society
- Web Master, Personality and Individual Differences Technical Group of the Human Factors and Ergonomics Society, 2003 – 2005.
- Paper Submission Reviewer: Human Factors and Ergonomics Society (96 – present)
- Session moderator for the 14th Triennial Congress of the IEA/HFES (2 sessions); 48th Annual Meeting of the Human Factors and Ergonomics Society
- Diversity Committee, Human Factors and Ergonomics Society
- Proposal Reviewer: National Science Foundation
- Site Reviewer: National Science Foundation
- Proposal Reviewer: National Institutes of Health

TEACHING AND ADVISING

(100% Responsibility for all courses taught)

ISE 3614: Introduction to Human Factors Engineering

ISE 4644: Occupational Safety and Hazard Control

ISE 4994: Undergraduate Research

ISE 5994: Graduate Research

ISE 5604: Human Information Processing

ISE 5674: System Safety Analysis

ISE 5684: Industrial Health and Safety Engineering

ISE 5694: Macroergonomics

ISE 6614: Human Computer Systems

ISE 6624: Advanced Topics: Cultural Ergonomics: Theories, Methods, and Applications

ADVISING ACTIVITIES

Advisor and Chair for:

1. Ph.D. Sharnnia Artis (Graduated Fall 2007)
2. Ph.D. Miranda Capra (Graduated Spring 2006)
3. Ph.D. Zachary Doerzaph (Graduated Fall 2007)
4. Ph.D. Yu Hsiu Hung
5. Ph.D. Kayenda Johnson (Graduated Spring 2008)
6. Ph.D. Si-Jung Kim
7. Ph.D. Gyuhyu Kwon
8. Ph.D. Young Seok Lee (Graduated Fall 2007)
9. Ph.D. Will Lee (Graduated Spring 2009)

10. Ph.D. Ying Hu (Graduated Fall 2008)
11. Ph.D. Hyung Nam Kim
12. Ph.D. Cortney Martin (Graduated Spring 2007)
13. Ph.D. Kimberly Myles
14. Ph.D. Chang Soo Nam (Graduated Fall 2003)
15. Ph.D. Young Sam Ryu (Graduated Spring 2005)
16. Ph.D. Boon Kee Soh (Graduated Spring 2007)
17. Ph.D. Suzanne Stevens (Graduated Spring 2003)
18. M.S. Shawnette Adams (Graduated Fall 2007)
19. M.S. Venkat Balasubramanian (Graduated 2002)
20. M.S. Darshan Baldev (Graduated Fall 2006)
21. M.S. Yogesh Bhatkhande (Graduated Spring 2006)
22. M.S. Charneta Baugham Samms (Graduated Fall 2006)
23. M.S. Sarah Brown (Graduated Fall 2004)
24. M.S. Seth Cross (Graduated Fall 2006)
25. M.S. Zachary Doerzaph (Graduated Spring 2004)
26. M.S. Tolga Durak (Graduated Fall 2004)
27. M.S. Raquel Ferreira (Graduated 2002)
28. M.S. Maria Fumero-Aguilo (Graduated Spring 2004)
29. M.S. Arul Imran (Graduated Spring 2008)
30. M.S. Ira Jhangiani (Graduated Spring 2006)
31. M.S. Shreya Kothaneth
32. M.S. Yoon Lee (Graduated Fall 2007)
33. M.S. Young Seok Lee (Graduated Spring 2003)
34. M.S. John Lockett (Graduated Fall 2005)
35. M.S. Melinda McElheny (Graduated Spring 2005)
36. M.S. Aaron Mooney (Graduated 2002)
37. M.S. Latanya Martin (Graduated Summer 2004)
38. M.S. Sajitha Narayan (Graduated Spring 2005)
39. M.S. Luke Neurauter (Graduated Fall 2004)
40. M.S. Rebecca Olson (Graduated Fall 2006)
41. M.S. David Ramsey
42. M.S. Sushma Rao (Graduated 2002)
43. M.S. Boon Kee Soh (Graduated, M.S. 2002)
44. M.S. Doug Savick (Graduated Spring 2006)
45. M.S. Prakaash Selvaraj (Graduated Spring 2004)
46. M.S. Sriram Sridharan (Graduated Fall 2002)
47. M.S. Chanel Thomas (Graduated Spring 2006)
48. M.S. Jack Waugh (Graduated Spring 2005)
49. M.S. Jennifer Wissman (Graduated Spring 2002)
50. M.S. Hyunseung Yoo (Graduated Summer 2008)

Committee Memberships:

Ph.D. Students: William Staderman (graduated, ISE.), Myrna Callison (ISE), Ryan Urquhart (graduated, ISE), Charlie Klauer (Graduated, ISE), Myra Blanco (graduated, ISE), Eric Olsen (graduated, ISE), Angela Astin (ISE), Sam Middlebrooks (ISE), Cheryl A. Kieliszewski (ISE), Dennis Neale (Computer Science), Charlie Klauer (ISE), Jason Saleem (graduated; ISE), Nancy Grugle (graduated; ISE), Julie Barker (ISE), Delia Grenville (graduated; ISE); Bret Swan (Graduated; ISE); Enid Headen Montague (Graduated; ISE); Laura Hughes (Graduated ISE);

Sophie Kim (ISE); Kristin Talcott (ISE); Linsey Barker (ISE); Andrea Krausman (ISE); Jamika Burge (graduated, Computer Science); Shane McLaughlin; Si-Jung Kim; Akshi Kakar; Francisco Olivera; Manas Tungare; Lisa Tabor (Public Administration and Policy); Karen Hockett (Forestry); Bin Le (Electrical Engineering); Forest McFeeters (Teaching and Learning); Kelly Richmond (Business), Emet LaBoone (Teaching and Learning); Jamika Burge (Computer Science Department); John Howarth (Computer Science); Partha Pyla (Computer Science); Roby Robinson (Building Construction); Tracey Gilbert (Engineering Education); Quin-Quin Li (Electrical Engineering).

M.S. Students: Jaideep Godara (ISE) Andrea Krausman (graduated, ISE), YodYot Wangwonich (graduated, ISE), Sharnnia Artis (graduated, ISE), Brent Fraser (Graduated; ISE), Jeremy Spaulding (graduated, ISE), Kris Hager (graduated), Thomas Davis (graduated), Tim Kogler (graduated, ISE), Pauline Sexton (graduated, ISE), Mitch Woods (graduated, ISE), William Penhallegon (graduated, ISE), Chuck Perala (graduated, ISE), Pak Mekeurungrung (graduated, ISE), Jimmy Vu (graduated, ISE), Hope Johnson (graduated); Monica Glumm, Hope Johnson (graduated, ISE), Divya Gupta (graduated, ISE), Mary Pinney, Kayenda Johnson (graduated, ISE), Mitch Woods (graduated, ISE), Laura Hughes (graduated, ISE), Dong Jae Shin (graduated, ISE).

CONSULTING ACTIVITIES

1999 – Present

Human Factors Forensics

Expert witness in product safety litigation. Provide research, analysis, expert-based opinions in legal settings regarding usability, risk communications, and product safety.

2003 – 2007

Risk Communications and Interface Usability Design and Evaluation

Use expertise to ensure standards-based design and evaluation of risk communications using scientific methods, including hazard and safety analysis and usability evaluations. Companies: Ferrell Gas (Atchison, KS), Kadix Systems, Incorporated (Arlington, VA).