

# Technical Group Officers and Activities

## **COUNCIL OF TECHNICAL GROUPS**

**Donald L. Lassiter, *Chair***

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## **AEROSPACE SYSTEMS TECHNICAL GROUP**

The Aerospace Systems Technical Group (ASTG) works to further the application of human factors/ergonomics to the development, design, certification, operation, and maintenance of human-machine systems in the aviation and space environments. The group addresses issues relevant to civilian and/or military systems.

For the 2009 HFES Annual Meeting, the ASTG refereed papers in aviation and space human factors and prepared program sessions related to the ASTG's purpose. ASTG interacted with other Technical Groups in joint program planning of sessions, held the ASTG's annual business meeting, and participated in the annual meeting of the Council of Technical Groups. The ASTG prepares and distributes two ASTG newsletters electronically per year and maintains the ASTG Web site with current news, links, and other materials. The ASTG also contributed material to the *HFES Bulletin*.

The group had 428 members as of December 31, 2009.

Contact the Aerospace Systems Technical Group, c/o Valerie J. Gawron, MITRE Corp., 7515 Colshire Dr., M/S N420, McLean, VA 22102-7539, 703/983-7001, fax 703/983-1917, [vgawron@mitre.org](mailto:vgawron@mitre.org), <http://www.hfes.org/astg/>.

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## **AGING TECHNICAL GROUP**

It is generally acknowledged that age-related changes in physiological and cognitive functioning affect, to some extent, the ability of older people to successfully perform or function in many life activities. The performance problems encountered by this population are becoming increasingly important given demographic changes and the “graying” of society. Human factors/ergonomics, with its emphasis on the analysis of human capabilities and design to fit these capabilities, is highly suited to solving problems encountered by older individuals in work, home, and leisure activities. The Aging Technical Group consists of people interested in HF/E applications appropriate to meeting the needs of older people and other special populations in a wide variety of life settings. This includes understanding the performance capabilities and user needs of these populations in homes, at work, and at leisure, and identifying and designing environments, products, and activities that best fit these needs and characteristics.

In 2009, the Aging TG elected a new slate of officers through electronic balloting. In addition, the Aging TG published a summer newsletter with contributions from the membership. The newsletter was distributed to the membership electronically through the Aging TG list server. The Aging TG business meeting luncheon was held during the HFES Annual Meeting in San Antonio, Texas. The agenda included the introduction of officers and discussions of the TG’s technical sessions, the student paper award, the budget, and the Web site. The Arnold Small Student Paper Award recipient was Jessie Chin of the University of Illinois at Urbana-Champaign. A new award, the Aging TG Research Scholarship Award, was given to Wei-Ting Yin of Ohio State University to support her dissertation research.

The group had 288 members as of December 31, 2009.

Contact the Aging Technical Group, c/o Richard Pak, Clemson University, Dept. of Psychology, 418 Brackett Hall, Clemson, SC 29634, 864/656-1584, richpak@clemson.edu, <http://www.psychology.gatech.edu/atg>.

## **AUGMENTED COGNITION TECHNICAL GROUP**

The Augmented Cognition Technical Group is concerned with fostering the development and application of real-time physiological and neurophysiological sensing technologies that can ascertain a human’s cognitive state while interacting with computing-based systems, data classification and integration architectures that enable closed-loop system applications, mitigation (adaptive) strategies that enable efficient and effective system adaptation based on a user’s dynamically changing cognitive state, individually tailored training systems, roadmaps for future directions concerning augmented cognition science, and technology and guidelines of use for the technology and the user information that may be garnered from it.

In 2009, the Lee S. Kollmorgen Spirit of Innovation Award was presented to Glen Wilson, Wright-Patterson Air Force Base. The group organized one technical session for the HFES 53rd Annual Meeting in San Antonio, Texas.

The group had 196 members as of December 31, 2009.

Contact the Augmented Cognition Technical Group, c/o Lauren Reinerman UCF-IST, 3100 Technology Pkwy., Orlando, FL 32826, 407/882-1140, fax 407/882-1335, lreiner@ist.ucf.edu, <http://www.augmentedcognition.org/actg.htm>.

**Richard Pak**  
*Chair & Program  
Chair-Elect*

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*Chair-Elect*

**Kari L. Babski-Reeves**  
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*Secretary-Treasurer*

**Cory-Ann Smarr**  
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*Chair*

**Lauren Reinerman**  
*Program Chair*

**Daniel Afergan**  
*Newsletter Editor*

**Rich Baker**  
*Treasurer*

**Justin Estep**  
*Secretary*

**Joy Martinez**  
*Webmaster*

## **COGNITIVE ENGINEERING AND DECISION MAKING TECHNICAL GROUP**

The Cognitive Engineering and Decision Making Technical Group (CEDMTG) encourages research on human cognition and decision making and the application of this knowledge to the engineering of sociotechnical systems, the design of organizations, and the implementation of training programs. Emphasis is on characteristics of human cognition in real-world settings for individuals, teams, or individuals teamed with intelligent systems; factors that affect decision making; descriptive models of cognition and learning; and training strategies for assisting or influencing cognitive processes.

In 2009, the CEDMTG sponsored 14 technical sessions for the HFES Annual Meeting, was active on Facebook and LinkedIn, and produced two newsletter issues.

The group had 800 members as of December 31, 2009.

Contact the Cognitive Engineering and Decision Making Technical Group, c/o David Kaber, North Carolina State University, Edward P. Fitts Dept. of Industrial Engineering, 439 Daniels, Raleigh, NC 27695, 919/515-3086, fax 919/515-5281, dbkaber@ncsu.edu, <http://www.hfes.org/cedm/>.

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*Student Affairs and  
Awards Officer*

## **COMMUNICATIONS TECHNICAL GROUP**

The Communications Technical Group (CTG) is concerned with all aspects of human-to-human and human-to-machine communications, with special emphasis on communications mediated by technology. The group continues to focus on traditional telephone communications, but with an increasing emphasis on social networking, mobile communications, and multimedia communications such as the Internet, Internet telephony, interactive television, desktop video conferencing, collaborative communications, and multimedia information providers. Members are interested in the design and evaluation of user interfaces for communication products, systems, and services, and in enabling technologies such as speech, telephone, and television input devices. These are being applied in consumer, business, educational, military, and medical settings.

The CTG organized several sessions at the HFES 2009 Annual Meeting in San Antonio, including nine papers, five lectures, and four posters. Membership in the CTG remained stable throughout the year. In the coming year, the group will promote growth through outreach to HFES members who work with mobile communications and social networking applications.

The group had 128 members as of December 31, 2009.

Contact the Communications Technical Group, c/o James H. Pratt, AT&T Labs, 9505 Arboretum Blvd., Austin, TX 78759, 512/372-5730, fax 512/241-5730, james\_pratt@labs.att.com.

**James H. Pratt**  
*Chair*

**Aaron W. Bangor**  
*Program Chair*

**Sarah P. Everett**  
*Secretary-Treasurer*

## **COMPUTER SYSTEMS TECHNICAL GROUP**

The Computer Systems Technical Group (CSTG) is concerned with human factors/ergonomics in the design of computer systems. This includes the user-centered design of hardware, software, documentation, related user tasks, and the environment in which the systems are used. Working within the broader context of the other wide-ranging subspecialties within HFES, practitioners and researchers in the CSTG community take a holistic, systems approach to the design and evaluation of all aspects of user-computer interactions. The immediate goal is to ensure that computer systems are useful, usable, safe, and enjoyable. The overriding motivation is to enhance the quality of life by ensuring that computer systems provide optimal support for what the user wants to accomplish. The CSTG is the organizational meeting place for human factors and ergonomics practitioners and researchers interested in computer systems, including hardware and software, cognition and anthropometry, the Internet and intranets, interaction design and usability, and local and distributed applications.

The CSTG cosponsored (with the Internet Technical Group) three lecture sessions comprising 15 presentations at the HFES 53rd Annual Meeting in San Antonio. The sessions addressed the following topics: collaboration, trust, and security; navigation; and input and output. The CSTG also sponsored the President's Forum and wireless Internet access in the Student Lounge. One newsletter was distributed via the CSTG list server just prior to the Annual Meeting, and the CSTG brochure was updated. During the fall of 2009, a team of graduate students at Clemson University (Kevin Juang, Kapil Chalil Madathil, Scott McIntyre, and James Zabel) redesigned the CSTG's Web site.

The group had 289 members as of December 31, 2009.

Contact the Computer Systems Technical Group, c/o Joel S. Greenstein, Dept. of Industrial Engineering, Clemson University, 110 Freeman Hall, Clemson, SC 29634-0920, 864/656-5649, fax 864/656-0795, iejsg@clemson.edu, <http://hfescstg.wordpress.com/>.

**Joel S. Greenstein**  
*Chair*

**Douglas L. Gardner**  
*Program Chair*

**Douglas E. Fox**  
*Newsletter Editor*

**Kapil Chalil Madathil**  
*Webmaster*

## **EDUCATION TECHNICAL GROUP**

The Education Technical Group (ETG) is concerned with the design of educational systems, environments, interfaces, and technologies associated with human factors/ergonomics education. The group consists of educators, researchers, students, and others interested in educational HF/E and is focused on the education and training of HF/E specialists in academia, industry, and government. The group seeks to foster a free exchange of ideas, techniques, and even products among members to further the cause of educating HF/E professionals. Its mission also encompasses educational ergonomics, the study and application of HF/E principles applied to the design of educational systems. This includes addressing the use of various types of technologies, classroom design, educational topics, and teaching methods.

In 2009, the ETG's activities were centered on its technical program, organized by Program Chair Terence Andre, and on an HF/E Teaching Forum workshop organized by Program Chair-Elect Frank Durso, both held during the HFES Annual Meeting in San Antonio. Workshop presenters included several ETG members, several past Paul M. Fitts Award winners,

**Tracey B. Wortham**  
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*Program Chair Designate*

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*Newsletter Editor*

**Sahika V. Korkmaz**  
*Webmaster*

and author Steven M. Casey. The ETG also published three newsletters during the year, which are available from the ETG's newly revised Web site.

The group had 213 members as of December 31, 2009.

Contact the Education Technical Group, c/o Tracey Wortham, Murray State University, 157 Industry & Technology Ctr., Dept. of Occup. Safety & Health, Murray, KY, 42071, 270/809-6657, fax 270/809-3630, tracey.wortham@murraystate.edu, <http://www.hfes.org/etg/>.

## **ENVIRONMENTAL DESIGN TECHNICAL GROUP**

The Environmental Design Technical Group (EDTG) is concerned with the relationship between human behavior and the designed environment. Common areas of research and interest include ergonomic and macroergonomic aspects of design within home, office, and industrial settings. An overall objective of this group is to foster and encourage the integration of ergonomics principles into the design of environments.

The EDTG had a very exciting program at the HFES 53rd Annual Meeting, with four technical sessions on such topics as environmental design, productivity, and the ergonomic needs of young computer users. The sessions were well attended and very interactive. The group held a joint business meeting with the Macroergonomics Technical Group and invited the Health Care Technical Group to attend. At the business meeting, Alan Hedge gave an inspiring and thought-provoking presentation on green ergonomics. His efforts in the HFES community were acknowledged, as were those of two other members, who were inducted as IEA Fellows. There is increased international interest in the EDTG because of the outreach activities of members and linkage to IEA and the design world.

The group had 160 members as of December 31, 2009.

Contact the Environmental Design Technical Group, c/o Michelle M. Robertson, Liberty Mutual Research Institute for Safety, 71 Frankland Rd., Hopkinton, MA 01748, 508/497-0248, fax 508/435-8136, michelle.robertson@libertymutual.com, <http://www.hfes.org/edtg/>.

## **FORENSICS PROFESSIONAL GROUP**

The Forensics Professional Group (FPG) comprises people interested in all aspects of human factors/ergonomics as applied to litigation matters, both civil and criminal. The FPG encourages research and reporting of studies that further knowledge about forensic human factors and how HF/E data and techniques can be applied to standards of care, behavioral expectations, product safety, and workplace safety.

The FPG focused on two initiatives for the 2008–2009 program year. A series of excellent papers, panels, posters, and workshops were given at the HFES 2009 Annual Meeting. Everyone who attended these sessions responded with extremely positive feedback. A LinkedIn Group was established and a newsletter with several excellent articles was published. Currently, activity is very light, but the group hopes to grow in the future.

The group had 283 members as of December 31, 2009.

Contact the Forensics Professional Group, c/o Marc Resnick, 1200 Brickell Bay Dr., Apt. 2409, 305/443-3765, fax 305/348-3721, resnickm@fiu.edu, <http://www.hfes.org/fpg/index.html>.

**Michelle M. Robertson**  
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*Secretary-Treasurer*

## **HEALTH CARE TECHNICAL GROUP**

Members of the Health Care Technical Group (HCTG) are interested in maximizing the contributions of human factors/ergonomics to the effectiveness of medical systems, patient safety, and the quality of life for people who are sick or functionally impaired. The health care domain is a growing sector of HFES, with interest being spurred by the patient safety movement, the growth of medical informatics, and concerns for the medical needs of the aging population. Many HF/E professionals routinely face human factors–related challenges in providing for the health and well-being of people. Accordingly, the group’s goal is to share new ideas that can help respond to these challenges. All who seek quality health care can benefit from this work. HF/E practitioners in health care can find satisfaction in the process of applying their abilities and knowledge to help others.

The HCTG is the fourth-largest technical group within HFES. The HCTG program at the HFES 53rd Annual Meeting in San Antonio was a great success. There were nine sessions (five lecture sessions, four discussion panels) and five poster presentations on health information technology, human factors in surgery, human factors in ambulatory care, interruptions in health care, and the role of human factors in patient-centered care. In addition, the program included two cosponsored sessions, one with the Macroergonomics Technical Group and the other with Student Forum. The HCTG held a meeting on the topic “10 Years After the Institute of Medicine’s Report.” In 2009, the HCTG best student paper was awarded to Mi Zhou from Tufts University for “Vibrotactile Feedback Improves Laparoscopic Palpation Skills.”

The group had 517 members as of December 31, 2009.

Contact the Health Care Technical Group, c/o Ayse P. Gurses, Johns Hopkins University School of Medicine, Dept. of Anesthesiology and Critical Care, Quality and Safety Research Group, 1909 Thames St., 2nd floor, Baltimore, MD 21231, 410/614-1876, agurses1@jhmi.edu, <http://hctg.wordpress.com/>.

## **HUMAN PERFORMANCE MODELING TECHNICAL GROUP**

The Human Performance Modeling Technical Group (HPMTG) is concerned with the development and application of predictive, reliable, quantitative models of human performance. Distinct from other approaches of behavioral and cognitive modeling, HPM considers the human in the context of a designed task environment. The scope of the models of interest encompasses the scope of systems of interest to HFES. Hence, the group equally promotes models of isolated aspects of human performance; models of the cognitive control of memory, attention, perception, and action; and models of an integrative nature that receive task-related information from the environment and produce thoughtful human-like action.

The HPMTG promotes and disseminates research in the areas of a basic science foundation for models, engineering research required to apply models to human factors/ergonomics issues, new formalisms for modeling, and techniques to evaluate predictive success of models. The TG is envisioned as a forum for testing modeling approaches emerging from the basic research community against the hard realities of HF/E problems. The group also seeks to identify challenges faced by the human factors community

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*Newsletter Editor*

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*Program Chair-Elect*

**Charneta L. Samms**  
*Newsletter Editor*

**Kevin A. Rider**  
*Membership Chair*

**Matthew L. Bolton**  
*Webmaster*

in HPM to provide significant feedback to basic researchers on problems to overcome and opportunities to improve the research base.

The HPMTG held its business meeting at the HFES 2009 Annual Meeting and sponsored five technical sessions

The group had 329 members as of December 31, 2009.

Contact the Human Performance Modeling Technical Group, c/o Michael D. Byrne, Dept. of Psychology, Rice University, MS-25, 6100 Main St., Houston, TX 77005-1892, 713/348-3770, fax 713/348-5221, byrne@rice.edu, <http://www.hfes.org/hpmtg>.

## **INDIVIDUAL DIFFERENCES IN PERFORMANCE TECHNICAL GROUP**

The Individual Differences in Performance Technical Group (IDTG) was established to serve HFES members who share an interest in any of the wide range of individual differences or personality variables that are believed to mediate human performance. IDTG members share a common view that the study of these differences as related to human performance leads to improvements in the design of equipment and operational environments, the prediction of human task performance, and in training selection. A motto adopted as a guide for the group is “Prevent injury by recognizing individual differences in human capabilities and limitations.”

The important shared characteristic of IDTG members is their interest in how individual-differences variables and personality relate to human performance in some important theoretical or applied manner. The domain of research and applied topics shared within this technical group includes a broad range of individual differences such as performance ability, gender, intelligence, education, training level, and anthropometric variables. The IDTG domain also includes a wide range of modern personality aspects of social, cognitive, and biological origins. The crucial unifying principle of the IDTG is the importance of such variables for the advancement of human factors/ergonomics theory, research, and application.

Most of the research related to personality and individual differences in human performance is conducted at universities, government and military agencies, and companies, many of which are concerned with training, selection, or improving performance.

The IDTG sponsored two lecture sessions at the HFES 2009 Annual Meeting: “Individual Differences in Performance Under Stress” and “Individual Differences Potpourri.” Presenters considered different approaches to individual differences in human performance and their theoretical and practical implications for the design of human-technology interfaces and training procedures. The panelists presented the results of recent studies using cognitive and psychometric measures to examine individual differences in human performance under stress.

The group had 152 members as of December 31, 2009.

Contact the Individual Differences in Performance Technical Group, c/o Krystyna Gielo-Periczak, Worcester Polytechnic Institute, Biomedical Engineering Dept., Worcester, MA 01609, 508/831-5716, [krystyna.gielopericzak@gmail.com](mailto:krystyna.gielopericzak@gmail.com), <http://idtg.hfes.org/>.

**Krystyna Gielo-Periczak**  
*Chair*

**James L. Szalma**  
*Program Chair*

## **INDUSTRIAL ERGONOMICS TECHNICAL GROUP**

The Industrial Ergonomics Technical Group (IETG) is concerned with the application of ergonomics data and principles for improving the safety, productivity, and quality of work in industry. It concentrates on service and manufacturing processes, operations, and environments, including the design of products that form the basis of industrial employment.

The IETG organized four technical sessions and one Student Forum session during the HFES 53rd Annual Meeting in San Antonio. The sessions included topics such as upper-extremity ergonomics, ergonomics interventions, low-back pain and lifting, and neuromuscular responses. The IETG gave one student paper award.

The group had 486 members as of December 31, 2009.

Contact the Industrial Ergonomics Technical Group, c/o Thurmon Lockhart, 250 Durham Hall, Blacksburg, VA 24061, 540/231-9088, fax 540/231-3322, lockhart@vt.edu, <http://ietg.hfes.org/>.

**Thurmon E. Lockhart**  
*Chair*

**Richard W. Marklin**  
*Program Chair*

**Christopher A. Hamrick**  
*Newsletter Editor*

**Susan E. Kotowski**  
*Webmaster*

## **INTERNET TECHNICAL GROUP**

The Internet Technical Group (ITG) seeks to create a community for professionals from industry, academia, and government who share a common interest in Internet technologies and related behavioral phenomena. The ITG provides value to members through enabling and encouraging an immediate exchange of research, ideas, and technical innovations. This is considered crucial, given the rapid pace of development in this field. Areas of interest include the user interface design of Web content, Web-based applications, Web browsers, Webtops, Web-based user assistance, and Internet devices; behavioral and sociological phenomena associated with distributed network communication; human reliability in the administration and maintenance of data networks; and accessibility of Web-based products.

The ITG focused on two initiatives for the 2008–2009 program year. The group collaborated with the Computer Systems TG in the development of an excellent program for the HFES 2009 Annual Meeting and moved its Web presence to LinkedIn, where the group is growing in both membership and activity. Both of these initiatives will continue in the 2009–2010 program year.

The group had 468 members as of December 31, 2009.

Contact the Internet Technical Group, c/o Marc Resnick, 1200 Brickell Bay Dri., Apt. 2409, Miami, FL 33131, 305/443-3765, fax 305/348-3721, resnickm@fiu.edu, [http://www.linkedin.com/groups?home=&gid=2391034&trk=anet\\_ug\\_hm](http://www.linkedin.com/groups?home=&gid=2391034&trk=anet_ug_hm).

**Ania C. Rodriguez**  
*Chair*

**Marc L. Resnick**  
*Program Chair*

## **MACROERGONOMICS TECHNICAL GROUP**

The Macroergonomics Technical Group (METG) is concerned with improving productivity and the quality of work life through the design and integration of human factors engineering and ergonomics into organizations. Areas of focus include job design, workstation ergonomics, technology, human performance, cognitive capabilities, and management systems. Macroergonomists study organizations from a holistic view that integrates psychosocial factors, organizational culture, and work systems to understand how these factors interact to affect system performance. Macroergonomics research encompasses a broad range of issues, including:

- organizational structure, culture, and communication
- participatory ergonomics, quality circles, and total quality management (TQM)
- job design, automation, computerization, informatics, and lean ergonomics
- leadership roles and styles, social networks, and communication
- occupational stress and shift work

Work in the field is diverse and is applied in many industries and global organizations, which range from those in developing countries to those in mature societies with complex organizations and work systems.

Macroergonomics research continues to grow, as evidenced by members' participation in conferences and publications, and their work and influence in the international ergonomics community. METG members presented papers, represented various industries on panels, and chaired sessions at the International Ergonomics Association (IEA) Congress in Beijing. Panel sessions included discussions on macroergonomics applications in work systems and macroergonomics and the control of musculoskeletal disorders. Paper session topics included quality of work life and health care, organizational performance of cross cultures in global organizations, occupational safety and health management, production systems, and organizational culture. The METG sponsored five panels and one paper session at the HFES 53rd Annual Meeting in San Antonio. Three of these panels were shared; two sessions were held with the Education TG and a joint session was held with the Health Care TG. METG members were elected to leadership roles in IEA, HFES, and other professional societies.

As the group looks to the future, it will continue to identify opportunities to promote student and practitioner membership through participation at the HFES 54th Annual Meeting in San Francisco and the 10th International Symposium of Human Factors in Organisational Design and Management in Grahamstown, South Africa.

The group had 187 members as of December 31, 2009.

Contact the Macroergonomics Technical Group, c/o Mark Hoffman, 2300 Beechwood Dr., Dover, OH 44644, 330/555-4568, mhoffman@bsgretail.com.

**Mark S. Hoffman**  
*Chair*

**Valerie J. Rice**  
**Petra Alfred**  
*Technical Program*  
*Cochairs*

**Carla J. Alvarado**  
*Secretary-Treasurer*

**Samuel J. Alper**  
**Kara Schultz-Van Roy**  
*Newsletter Editors*

## **PERCEPTION AND PERFORMANCE TECHNICAL GROUP**

The primary goals of the Perception and Performance Technical Group (PPTG) are to promote the exchange of information about perception and its relation to human performance and to increase outreach, nurturing, and networking to enhance the visibility of the group and its members. The scope of PPTG encompasses all sensory/perceptual modalities and encourages multimodal approaches to human factors/ergonomics research. Areas of concern include the nature, content, and quantification of sensory information and the context in which it is displayed; the physics and psychophysics of information display; perceptual and cognitive representation and interpretation of displayed information; assessment of workload using tasks having a significant perceptual component; and the actions and behaviors that result from information presented to the various sensory systems. Design implications and display principles emerging and codified from this body of work are of great interest.

During 2009, the PPTG continued its tradition of organizing a series of technically excellent sessions with outreach to other technical areas at the HFES 53rd Annual Meeting in San Antonio. The PPTG held seven sessions comprising 30 lectures, with two cosponsored sessions (one with the Aerospace Systems Technical Group and one with the Cognitive Engineering and Decision Making Technical Group), and one discussion panel.

Two graduate student awards of \$500 each were made to Myoungsoon Jeon of Georgia Tech and Brittany Anderson of Old Dominion University. Also at the meeting, the PPTG welcomed Adrian Salinas of the U.S. Air Force Research Lab as program chair for the HFES 54th Annual Meeting in San Francisco and Chris Brill of Old Dominion University as program chair of the 55th Annual Meeting in Las Vegas. Issues of the newsletter, *INSIGHT*, were published under the continuing sponsorship of Cambridge Research Systems (CRS) of the United Kingdom.

The group had 439 members as of December 31, 2009.

Contact the Perception and Performance Technical Group, c/o Paul R. Havig, U.S. Air Force Research Lab, 711 HPW/RHCV, 2255 H ST Wright-Patterson AFB, OH 45433-7022, 937/255-3951, fax 937/255-8366, paul.havig@wpafb.af.mil, <http://www.hfes.org/pptg/>.

**Paul R. Havig**  
*Chair*

**Adrian O. Salinas**  
*Program Chair*

**J. Christopher Brill**  
*Program Chair Designate*

**Shelley Rosenbaum-Lipman**  
*Newsletter Editor*

**Keith S. Jones**  
*Treasurer*

**Robert A. King**  
*Webmaster*

## **PRODUCT DESIGN TECHNICAL GROUP**

The Product Design Technical Group (PDTG) is dedicated to developing products that are practical, usable, safe, and desirable by applying the methods of human factors/ergonomics, consumer and user research, and industrial design. Members of this group are concerned with creating an appealing total user experience for consumers, as well as for people using commercial, medical, and industrial products and systems. The group's work focuses on both physical and cognitive issues related to user interaction. PDTG members work for government, industry, the service sector, and universities. The membership is distributed across many countries and includes industrial designers, behavioral psychologists, safety specialists, engineers, market researchers, and product manufacturers. The PDTG is one of the largest technical groups within HFES.

In 2009, the group conducted its 8th Annual Product Design Award competition, which recognizes innovative and user-centered approaches to human factors and product design. At the HFES 2009 Annual Meeting in San Antonio, Paul Green, outgoing president of HFES, presented the 2009 Product Design Technical Group awards to two recipients. Design Concepts, Inc., won for the JohnsonDiversey ProSpeed™ Floor Finish Applicator System, which enables janitors to polish floors more productively and with less training and effort than that required with other systems. Craig Conner, principal and director of human factors, accepted the award. Interface Analysis Associates was recognized for the Powerheart Automatic External Defibrillator G3 Plus. Its work on the voice-prompt interface resulted in a higher rate of successful rescues, as shown in simulated testing. Anthony Andre, founding principal and project lead, accepted the award. These and previous years' awardees can be viewed at <http://www.hfes.org/pdtg>.

Also at the Annual Meeting, the PDTG sponsored an invited speaker, Nelson Soken, who delivered an excellent session highlighting the "big picture" of product development and his understanding of how human factors/ergonomics fits into it. Soken has managed the Human Factors Group at Medtronic's Cardiac Rhythm Group in Minneapolis. The session was exceptionally well attended, and the group aims to build on this success in future years. The Product Design Technical Group also hosted 13 papers in three lecture sessions, one demonstration, a discussion panel session, an award session, and an invited speaker session during the HFES Annual Meeting.

The group had 520 members as of December 31, 2009.

Contact the Product Design Technical Group, c/o Steven M. Belz, AT&T Labs - Human Factors, 9505 Arboretum Blvd., Austin, TX 78759, 512/372-5775, [stevenbelz@gmail.com](mailto:stevenbelz@gmail.com), <http://www.hfes.org/pdtg/>.

**Steven M. Belz**  
*Chair*

**Farheen Khan**  
*Program Chair*

**Joy K. Kempic**  
*Treasurer*

## **SAFETY TECHNICAL GROUP**

The Safety Technical Group (STG) is concerned with the improvement of safety and the reduction of incidents and injuries through the investigation of accidents, the evaluation and development of products and systems, and the education of individuals and companies about the application of sound human factors/ergonomics principles. Members of the STG come from diverse backgrounds including academia, consulting, aviation, transportation, manufacturing, military, government, construction, and health care. Members of the STG are heavily involved in safety and health efforts such as developing standards, contributing to public and labor policy, and engaging in safety and health research and practice.

In 2009, the Safety TG began a trial period using the online social networking site LinkedIn as a supplemental means to communicate with members and share information. It is hoped that the use of this site will allow more extended discussions among members without overwhelming users with e-mail messages.

At the 2009 HFES Annual Meeting, the Safety TG was proud to again sponsor the Arnold Small Lecture Series. The invited speaker was Rebekah Salazar of the U.S. Border Patrol, who discussed the human factors and safety issues associated with Border Patrol operations. The TG thanks Michael Kalsher for his continued efforts in locating speakers and organizing this lecture series.

The group had 597 members as of December 31, 2009.

Contact the Safety Technical Group, c/o Sharon Joines, 200 Brooks Hall, Campus Box 7701, North Carolina State University, Raleigh, NC 27695, 919/513-0825, fax 919/515-7330, sharon\_joines@ncsu.edu.

## **SURFACE TRANSPORTATION TECHNICAL GROUP**

The Surface Transportation Technical Group (STTG) provides a forum in which individuals involved or interested in transportation human factors/ergonomics can exchange information, research methods, and share ideas that are being developed and/or applied in the international surface transportation field. Surface transportation encompasses numerous mechanisms for conveying humans and resources: passenger, commercial, and military vehicles, on- and off-road; mass transit; maritime transportation; rail transit, including vessel traffic services; pedestrian and bicycle traffic; and highway and infrastructure systems, including intelligent transportation systems. In essence, surface transportation refers to all forms of transit outside the aviation and aerospace sectors.

In June 2009, the STTG cosponsored the Driving Assessment Conference held in Big Sky, Montana. The group also established a presence on LinkedIn. TG members are invited to join the LinkedIn group. Elections were held in August. The STTG extends its thanks and appreciation to the outgoing officers.

Several members of the STTG participated in Transportation Secretary Ray LaHood's summit on driver distraction held in September. At the HFES Annual Meeting, the group recognized the winner of the STTG Best Student Paper Award for 2009, David G. Kidd of George Mason University for his paper entitled, "Are Unskilled Drivers Aware of Their Deficiencies? How Driving Skills Influence the Accuracy of Driving Performance Estimates."

**Sharon Joines**  
*Chair*

**Jia Hua Lin**  
*Program Chair*

**Mary Lesch**  
*Program Chair-Designate*

**Thomas Hilliard**  
*Newsletter Editor*

**Carryl Baldwin**  
*Secretary-Treasurer*

**Michael J. Kalsher**  
*Arnold Small Lecture  
Organizer*

**Sunil Lakhiani**  
*Webmaster*

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**Jay G. Pollack**  
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**Myra Blanco**  
*Program Chair-Elect*

**John K. Lenneman**  
*Newsletter Editor*

**Michael (Mick) E.  
Rakauskas**  
*Secretary*

**Rebecca Iden**  
*Webmaster*

Throughout 2009, the STTG worked to keep the HFES Government Relations Committee informed of pertinent information relating to the upcoming U.S. Surface Transportation Authorization, as it will have a significant impact on research and funding opportunities in human factors/ergonomics. The STTG held its annual dinner at the Transportation Research Board meeting in January 2009.

The group had 383 members as of December 31, 2009.

Contact the Surface Transportation Technical Group, c/o William J. Horrey, 71 Frankland Rd., Hopkinton, MA 01748, 508/497-0237, fax 508/435-0482, william.horrey@libertymutual.com, <http://www.hfes.org/sttg>.

## **SYSTEM DEVELOPMENT TECHNICAL GROUP**

The System Development Technical Group (SDTG) is organized to foster research and exchange information on integrating human factors/ergonomics into the development of systems. This includes principles, criteria, processes, tools, and techniques. In this context, a system is described as any set or arrangement of elements related or connected so as to form a logical plan linking the various parts. Consumer products and Internet Web sites and applications are systems, as are such commonly recognized systems as computer, organizational, commercial power, and vehicle. The SDTG supports information exchange on systems-of-systems design and human-systems integration (HSI) systems-engineering processes.

For 2009, the SDTG updated its Web site and leveraged the social networking tools LinkedIn and Twitter to communicate with its members. During the HFES 2009 Annual Meeting in San Antonio, each SDTG session was well attended, and Carroll Thronesbery was the recipient of the Meister Award for her paper, "Concept of Operations Storyboard Tool."

The group published four newsletters and is establishing proactive practices for developing session themes and recruiting presenters for those themes.

The group had 194 members as of December 31, 2009.

Contact the System Development Technical Group, c/o Ryan Urquhart, P.O. Box 13491, Durham, NC 27709-3491, [urquhart4@nc.rr.com](mailto:urquhart4@nc.rr.com).

## **TEST AND EVALUATION TECHNICAL GROUP**

The Test and Evaluation Technical Group (TETG) focuses on all aspects of human factors/ergonomics testing and evaluation (T&E). It is a forum for the exchange of ideas about the art and science of measurement and the application of measurement when conducting tests, making assessments, and performing evaluations. Over the years, the methods and metrics used in testing and evaluation have changed as technology has evolved and critical HF/E issues have emerged. More than ever, measuring and assessing human performance, human-system performance, and factors that influence that performance remain a primary focus. In today's world, T&E activities play an important role during the research, development, testing, and evaluation processes of products and systems. Early in their lifecycle, T&E activities can provide information to support design decisions; later, they can provide information to assess performance and compare it with requirements. Depending on the situation, T&E methods and

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**Rebecca A. Grier**  
*Program Chair-Elect*

**Melissa Weaver**  
*Newsletter Editor*

**Teresa Alley**  
*Webmaster*

**Lawrence J. Hettinger**  
*Chair*

**Rebecca A. Grier**  
*Program Chair*

**Gretchen M. Anderson**  
*Newsletter Editor*

metrics can be formative or summative, analytical or empirical, quantitative or qualitative. They can be used to assess myriad dimensions of performance using traditional metrics such as speed and accuracy, or more recently developed metrics related to cognitive workload or situation awareness.

Members of the TETG are concerned with the development, reliability, and validity of T&E methods and metrics and about the selection of the most appropriate methods and metrics for use in a particular situation. TETG members are particularly interested in comparative evaluations of alternative methods, procedures, and tools when applied to T&E and in studies that provide high-quality examples of the use of T&E methods and metrics.

The TETG was involved in pulling together two excellent technical paper sessions for the HFES 2009 Annual Meeting. Membership in the TG has risen slightly in recent years, and overall interest in the T&E area, as reflected by the number of proposal submissions received for the Annual Meeting, appears to be on the rise. In 2009, Gretchen A. Anderson of The Boeing Company was elected editor of the newsletter. Gretchen and TETG Chair Lawrence J. Hettinger are preparing to release several newsletters in 2010.

The group had 249 members as of December 31, 2009.

Contact the Test and Evaluation Technical Group, c/o Lawrence J. Hettinger, 57 Myrick Ln., Harvard, MA 01451, 978/772-1017, fax 978/772-4646, larry.hettinger@ngc.com.

## **TRAINING TECHNICAL GROUP**

The Training Technical Group (TTG) consists of people interested in all aspects of human factors/ergonomics as applied to training systems. These include the design and evaluation of training systems, the use of innovative technologies for training, and the application of instructional design principles within training systems. The group includes more than 300 members representing academia, training and consulting firms, industry, and government agencies. The largest sponsor of human factors training research is the U.S. Department of Defense, and training researchers have been involved in efforts such as setting standards regarding performance measurement within training simulators for the Naval Aviation Simulation Master Plan, designing the instructor/operator stations that control distributed, networked simulation-based training exercises, and integrating neural and physiological measures with performance data to increase the efficiency and/or effectiveness of simulation-based and live training exercises.

During the HFES 2009 Annual Meeting, the TTG sponsored two lecture sessions, two symposia, and one poster. The award for the Best Student Paper in 2009 went to Chad Tossell of Rice University for his paper, "The Influence of Rating Method on Knowledge Structure." David Shuster of the University of Central Florida received the Student Grant Award in 2009 for his proposal, "Individually Adaptive Discrimination Training for Improved Explosive Detection." Submissions for the 2010 Best Student Paper Award and the Student Grant Program are encouraged.

The group had 309 members as of December 31, 2009.

**Amy E. Bolton**  
*Chair*

**Emily E. Wiese**  
*Program Chair*

**David Shuster**  
*Newsletter Editor*

**Kelly Neville**  
*Secretary-Treasurer*

**Teresa Alley**  
*Webmaster*

Contact the Training Technical Group, c/o Amy Bolton, Office of Naval Research, Warfighter Performance Dept., Code 342, 875 N. Randolph St., Room 1042, Arlington, VA 22203-1995, 703/588-2547, fax 703/696-0332, amy.bolton@navy.mil, www.hfes.org/ttg.

## **VIRTUAL ENVIRONMENTS TECHNICAL GROUP**

The Virtual Environments Technical Group (VETG) is concerned with human factors/ergonomics issues associated with the interaction of humans and virtual environments (VE), including virtual reality (VR), simulation, and gaming. These issues include maximizing human performance efficiency in virtual environments and ensuring health, safety, and enjoyment while circumventing potential social problems through proactive assessment. For VE/VR systems to be effective and well received by their users, researchers need to focus significant effort on addressing HF/E issues.

At the HFES 53rd Annual Meeting, the VETG sponsored two lecture sessions (“Leveraging Virtual Reality and Computer-Based Games for Training” and “Methodologies and Interaction Techniques in Virtual Reality”). The VETG established a Web site in December 2007 and updated information on the site in 2009.

The group had 189 members as of December 31, 2009.

Contact the Virtual Environments Technical Group, c/o Yingzi Lin, Northeastern University, Mechanical and Industrial Engineering Dept., 360 Huntington Ave., Boston, MA 02115, 617/373-8610, fax 617/373-2921, yilin@coe.neu.edu, www.hfes.org/vetg.

**Yingzi Lin**  
*Chair*

**Jason S. Augustyn**  
*Program Chair*

**Chang S. Nam**  
*Newsletter Editor*

**Ronald R. Mourant**  
*Webmaster*