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## Federation Annual Meeting Features Student Forum, Emerging Technologies Presentation

*By Gerald P. Krueger, HFES Representative*

Each year, the Federation of Behavioral, Psychological and Cognitive Sciences (“the Federation”), of which HFES is a member, holds a two-day annual meeting in Washington, D.C., with a science forum on the first day and a business meeting on the second.

**Science Forum**

On December 3, 2004, the Federation, along with the American Psychological Association of Graduate Students, convened a science forum entitled “Nonacademic Careers in Behavioral, Psychological, and Cognitive Sciences.” The intended audience was students, postdocs, early-career Ph.D.s, and those interested in making a career transition. The impressive lineup of eight speakers included HFES’s own William Howell, who spoke on “Careers for New Ph.D.s.” Important points were made for younger HFES members seeking new jobs and career guidance. The overriding message of the speakers was to think broadly about yourself and your job prospects. Determine your strengths, skills, and passions, and then network. Talk to people, professionals, and friends, letting them know you are looking for a job. Schedule informational interviews, and explore opportunities that at first glance might not seem to fit all of your criteria.

The Federation lists the advice from the forum speakers on a newly created “Careers” Web page (<http://www.thefederationonline.org/CareersIndex.html>). Eventually this page will list useful on-line career resources for research-trained behavioral scientists.

**OSTP Presentation on Nanotechnology Initiative**

On December 4, at the Federation’s annual business meeting, Carla Merzbacher and Susan E. Brandon from the Office of Science and Technology Policy (OSTP) of the Executive Office of the President presented an overview of the National Nanotechnology Initiative (NNI). NNI was established in 2001 and put into law by the 21st Century Nanotechnology R&D Act of 2003 to expedite the discovery, development, and deployment of nanotechnology. The act provided research and development guidelines for length scales (~1 to 100 nanometers), the magnification at which new properties and functions arise. These permit the ability

to control, see, measure, and manipulate matter on the atomic and molecular scale to exploit those properties and functions. Scientists are approaching the ability to integrate those properties and functions into systems spanning nano to macroscopic scales.

Forward-thinking HFES members can envision that revolutionary nano applications will affect the material systems for which we regularly address issues of human-machine interaction, such as military/defense, aerospace, auto/transport, energy, alternative power, electronics, medicine, biotechnology, consumer products, and clothing and textiles. For example, in terms of my own interests, the U.S. Army’s nano program at the Massachusetts Institute of Technology is making dramatic breakthroughs to improve military protective clothing and uniforms. In other places, great strides are being made in microminiaturization of smart sensors and in biomedicine.

The annual funding for this multiagency NNI program (now 21 participating agencies) has increased more than 100% from FY 2001 (\$464M) to FY 2005 (\$982M was requested). Its goals include (a) maintaining a world-class nano R&D program; (b) facilitating transfer of new nano technologies; (c) developing educational recourses, a skilled workforce, and the supporting infrastructure and tools; and (d) supporting responsible development of nanotechnology. The NNI coordination office Web site is <http://www.nano.gov>.

**HFES Involvement Featured in Annual Report**

The Federation’s 2004 annual report reflects the very active involvement of HFES, including the following:

- Our successful nomination of David Dinges in the Decade of Behavior Research Competition, culminating in David’s receipt of the award on May 10 and his congressional briefing on Capitol Hill, “The Criticality of Sleep for Health and Functioning in a 24/7 World”
- Wendy Rogers’ highlights of her work on the “Aware Home: An Interdisciplinary Initiative to Improve Home Design and Technology for Aging Adults” at a Capitol Hill exhibition, reception, and presentation on June 22

*continued on page 2*

## Federation Annual Meeting

(continued from page 1)

- Sponsorship and organization of the highly successful Science Forum on Human Factors and Patient Safety Research on October 15 (see the December issue of the *HFES Bulletin*).

HFES continues its active participation and collaboration with the Federation to advocate, educate, and communicate. For more information about the Federation, go to <http://www.thefederationonline.org/>.

Gerald P. Krueger, Ph.D., CPE, is principal scientist/ergonomist at the Wexford Group International in Vienna, Virginia. He may be reached at [jerrykrueger@aol.com](mailto:jerrykrueger@aol.com) or [gkrueger@thewexfordgroup.com](mailto:gkrueger@thewexfordgroup.com). ☉

### STANDARDS

## BSR/HFES 100 Revision Committee Seeks Volunteers

By Thomas J. Albin, HFES 100 Committee Chair

I would like to invite you to consider acting as a canvass committee member for the revision of the American National Standards Institute/Human Factors and Ergonomics Society's *ANSI/HFES 100-1988 American National Standard for Human Factors Engineering of Visual Display Terminal Workstations*. The current draft, *BSR/HFES 100 Human Factors Engineering of Computer Workstations*, is a design standard for workstations used in offices. Its content pertains to the design of items such as workstation furniture and computer peripherals and to the integration of these components into a system that facilitates user performance and comfort.

The purpose of this article is to provide you with information about the canvass process and to determine whether you are interested in participating as a member of the canvass committee.

ANSI and HFES procedures require that no single interest category dominate the canvass committee. In order to achieve balance in the canvass committee, the HFES Institute and the committee chair may limit the number of representatives from any interest group as necessary. Consequently, an indication of interest does not necessarily guarantee that you will be asked to serve as a member of the canvass committee.

If you are interested in participating on the canvass committee, you need to do two things. First, please respond affirmatively by *March 15*. Second, you must identify which interest category, or subcategory if appropriate, that you represent.

### Development of the Current Document

A drafting committee of approximately 50 members produced the initial draft of the revised 1988 standard. This initial draft was edited and revised to produce the draft published in 2002 as the Board of Standards Review/Human Factors and Ergonomics Society's BSR/HFES 100 as a Draft Standard for Trial Use (DSTU). Public comment was invited during the trial use period. Subsequently, several working groups have made revisions based on reviewers' comments. We are now preparing to submit the revised draft for canvass review and, ultimately, for adoption as an American National Standard.

### Canvass Process

HFES is accredited by ANSI as a standards developer utilizing the canvass method. We have completed the first step of the standards development process (completion of a draft document) and are now ready to begin the canvass process.

In the canvass process, the canvass committee reviews the document and votes to determine whether it should be recommended to ANSI's Board of Standards Review for adoption as an American National Standard. It is important to note that in order for the document to receive consideration, HFES must meet the ANSI requirement that objections to the standard be supported with written reasons. ANSI also requires that the canvass committee be representative of those materially affected by the standard and that no single interest category dominate the committee. After a 60-day review period, the canvass committee votes to approve or disapprove the standard. Concurrent with the canvass committee's review, comments are solicited from the general public.

Once the Board of Standards Review determines that consensus with regard to the draft standard has been achieved, it approves the document as a new American national standard.

### Interest Categories

ANSI describes three general interest categories: producer, user, and general interest. The user category is further subdivided into consumer, industrial, government, and labor subcategories.

If you are interested in participating as a member of the canvass committee, please respond to me at the following address, indicating which interest category (and subcategory if appropriate) you wish to represent: Thomas J. Albin, c/o HFES, P.O. Box 1369, Santa Monica, CA 90406-1369. ☉



## Bulletin

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## Special Section: Classifying and Understanding Human Error

By Kelley Krokos & David Baker, Special Section Editors

Submissions are invited for a special section of *Human Factors* on classifying and understanding human error. It is generally recognized that humans have a finite set of cognitive and physical resources and that when faced with complex, target-rich environments, they can and will commit errors (Institute of Medicine, 1999; Reason, 1990). Aviation, medical, and transportation errors can be particularly costly in terms of both human life and loss of resources. In an effort to improve safety, these and other industries are developing and implementing systems to identify and classify human error and the factors that contribute to human error. The goal of these systems is to identify the causal factors of human error and to reduce or eliminate those factors.

There are a number of challenges associated with organizing human error. For example, the typical aviation voluntary incident reporting system requires contributors to submit text narrative describing the incident. However, in order to identify trends, analysts must read the narratives individually and classify them into groups by causal factor. This type of analysis is time consuming and does not allow for comparison of data across programs within an industry (e.g., Flight Operational Quality Assurance data and Aviation Safety Action Program data), across specific organizations within an industry, or across industries (aviation and maritime). Consequently, when these data have been analyzed for statistical trends, the process has been inefficient.

This special section is intended to bring together the research of individuals and organizations and to highlight their successes and challenges in organizing and understanding human error. Highlights would include the development of human error taxonomies or classification schemes for factors contributing to human error and the analysis of data from such schemes. We hope that this special section will provide valuable information to the user community regarding current best practices in this area.

Manuscripts submitted may be empirical works describing research conducted to organize human error or human factors contributions to error, the development or implementation of human error reporting systems (e.g., accident or incident reporting systems), taxonomies or classification schemes for organizing human error or contributors to human error, or the analysis of data from these systems. Theoretical works regarding the development of human error taxonomies or classification schemes for organizing contributors to human error are also encouraged.

The deadline for receipt of manuscripts is *August 1, 2005*. Manuscripts should be prepared in accordance with current *Human Factors* policy (go to <http://bfes.org/publications/bfauthorinfo.html>) and uploaded to the on-line submission and review system, Manuscript Central. When prompted for the name of the special section during the paper upload process, enter the phrase "Human Error." Papers will be blind-reviewed by a minimum of one member of the current *Human Factors* Editorial Board, a minimum of one review-

er who typically reviews for *Human Factors*, and other experts in the field as warranted by the content of the submission. The guest editors will make the final decision whether the manuscript will be accepted based on the comments of the reviewers. Inquiries are welcome and should be addressed to David Baker at [dbaker@air.org](mailto:dbaker@air.org).

### References

- Institute of Medicine. (1999). *To err is human: Building a safer health system*. Washington, DC: National Academy Press.
- Reason, J. (1990). *Human error*. New York: Cambridge University Press. ☒

### OTHER SOCIETIES

## Applied Ergonomics Conference

Plan to attend the Institute of Industrial Engineers' 8th Applied Ergonomics Conference, to be held March 21–24, 2005, at the Hyatt Regency at the Superdome in New Orleans, Louisiana. As a cosponsor, HFES organized two of the preconference workshops and will provide the HFES On-Site Career Center. For more information about the conference, go to <http://www.appliedergo.org/conference/>. ☒

### PEOPLE

## Conrad L. Kraft, 1916–2005

HFES Fellow Con Kraft died peacefully on Thursday, January 6, 2005, at the age of 88. He was born in 1916 in Birmingham, Michigan. He received his B.A. and M.A. in experimental psychology from the University of Wyoming and his Ph.D. in engineering psychology from Ohio State University in 1958, studying with Paul Fitts. Kraft was employed by the Boeing Company for many years as an engineering psychologist and chief scientist for crew systems technology. Among his professional awards and recognitions, he was most proud of the International Flight Safety Foundation's Distinguished Service Award in 1969 for his pioneering work on controlled flight into terrain. He was also on the faculty at the University of Washington, a researcher, forensic consultant, government consultant, and author of many scientific publications. Those who knew Con will remember him as a kind, generous gentleman; a good neighbor; and an unrepentant punster. He is survived by a son, a daughter, and five grandchildren.

**William S. Marras** presented the convocation graduation address at the University of Waterloo in Ontario, Canada, on October 23, 2004. Marras was also awarded an honorary doctorate in the sciences for his work in spine biomechanics. He may be contacted at [marras.1@osu.edu](mailto:marras.1@osu.edu), 614/292-6670, or at the Biodynamics Laboratory, Ohio State University, 1971 Neil Ave., Columbus, Ohio 43210. ☒



# Preparing the Dissertation Final Defense

By Haydee M. Cuevas

In an earlier article, I shared with you some of the lessons learned during the preparation of my dissertation proposal. In this article, I share some lessons learned during the preparation for my final defense.

Even though much of this is based on my experiences involving the final defense, many of these lessons also apply to the proposal defense. I hope that you will all learn just a little bit from my mistakes (as well as the things I did right!).

## Before the Defense

*If you live in Florida, don't schedule your defense date during hurricane season!* I know that leaves out June 1 through November 30, and I know it is most unusual to have three back-to-back hurricanes threatening Central Florida in one season. But the point is to make sure that there is not too much going on while you are trying to prepare for your defense. This includes not only your schedule but also the schedule of your committee members. I had my personal reasons for wishing to defend in early September, but in retrospect, it probably would have been more prudent to reschedule the defense for October.

*Meet with your committee members before the defense.* Provide them with enough time to review your manuscript and then ask to schedule a meeting to discuss any issues or concerns they may have. Some committee members may prefer to wait until the defense to raise these issues, but it doesn't hurt to ask. This will minimize the chance of surprises at your defense, particularly with regard to methodological issues that could easily have been addressed prior to the meeting. How well you heed the foregoing lesson will determine how available your committee will be to meet with you.

*Find out what is expected of you.* Students (myself especially!) have misconceptions about the purpose of the final defense and what is supposed to happen during this critical meeting. Meet with your dissertation chair prior to the defense to discuss your presentation and find out in more detail what you need to do to prepare. Small things, such as how long your presentation should be, how much detail to provide in the methods, and how to handle questions, make a big difference in how smoothly the meeting goes.

*Don't be afraid to ask for help.* I know, I mentioned this in my earlier article, but this advice bears repeating. Seek assistance and feedback from your committee members, other professors, and your fellow students. Ask someone to proofread your manuscript, both to look for grammatical or punctuation errors and to evaluate the content for clarity and flow. Do a mock-up of your defense presentation in front of your most honest colleagues, those who will provide you with straightforward feedback. Find someone who will allow you to vent your frustrations. Trust me – you'll feel a lot better after you've gotten it off your chest!

## During the Defense

*Think big picture.* As you present your dissertation study, focus

on the big picture rather than on the small details. Your committee members have all read your manuscript and do not need you to go to great lengths to describe your methods and statistical analyses and results. Often, they are more interested in the theoretical and practical implications of your findings. What is the relevance of these results? How do these findings address the research question you investigated? Can these findings be generalized on a broader level (i.e., external validity issue)? What are the limitations of your study? If you spend too much time discussing the small details, you will run out of time to get to the really important stuff. Be sure to confirm these expectations with your chair first, as different committees have different expectations.

*Don't be defensive!* This also applies to the proposal defense, as I learned only too well. During my defense, I was anxious about getting those signatures on that piece of paper. I had convinced myself that my committee was going to make me work hard before they signed. After my defense, my defense committee cochairs advised me not to react defensively to the questions presented by the committee members. They were only seeking clarification on important issues and trying to help me think critically about the study I was proposing. If you have done a good job in selecting your committee members (see the January article), you'll be able to trust them and work with them to improve your study.

*Don't answer every question.* I know you wish to impress upon your committee how brilliant you are and why you deserve to be a Ph.D., but it is not absolutely critical to give an answer to every question. If you do not have a clear response, it is acceptable to say things like "That's a great question. I did not look into it for this study, but I will be adding it to my future work in this area. Thank you." These are not my words – I received them from a Ph.D. whom I respect very much. I just wish I had used that line more often in my defense!

*Enjoy the process.* You may think this is impossible. And, to be honest, I did not enjoy my defense. But after a good night's sleep, I reflected upon what had transpired during my defense and realized how far I had come, how much I had learned, and how fortunate I was. I was grateful for the comments and questions my committee members presented and realized how useful these would be as I finalized my manuscript and began translating the study into a potential journal publication. I especially appreciated the warmth and support expressed to me by my committee members when they announced that they had approved my dissertation (though they requested several revisions to the manuscript, ugh!) and that I would soon be Dr. Haydee. Funny, I didn't feel like a doctor; maybe it was just post-traumatic stress!

## After the Defense

*Relax!* After all your hard work and accomplishments, relax and breathe (and sleep!). This advice holds true for your proposal defense as well (and postcomprehensive exams, for that matter).

*Follow up with your committee.* Once you have regained your strength, schedule a time to meet with your committee members to discuss more detailed feedback on your dissertation manuscript. Be sure to thank them once again for taking on the responsibility of serving on your committee.

## STUDENT VIEWS, cont.

I wish you the best of luck as you embark on the journey toward achieving your own personal goals. As always, feel free to contact me if you have any questions or if I may ever be of assistance.

*The views herein are those of the author and do not necessarily reflect those of the organization with which she is affiliated. Haydee Cuevas successfully defended her dissertation and received a Ph.D. in applied experimental and human factors psychology from the University of Central Florida in December 2004. She can be contacted via e-mail at haydee.cuevas@satechnologies.com.*



## NEWS

### Homeland Security Grant

The Department of Homeland Security (DHS) Center invites eligible institutions, partners, and groups of investigators to form consortia capable of mounting a sustained and innovative research and education effort in the specific area of the study of high-consequence event preparedness and response. The DHS will award one grant of \$15 million.

Respondents to this announcement should be familiar with the fact that the science and technology directorate of the Department of Homeland Security is a mission-driven program dealing with the security of the United States, focusing on weapons of mass destruction, resultant disruptions, and other possible effects. Outcomes derived from the research and education of this center should emphasize applications related to the organizational, technical, and educational tools required to prepare for and respond to high-consequence events, particularly those resulting from acts of terrorism. Further, approaches to develop the future intellectual capital and workforce necessary to respond to the challenges raised in this announcement should be broadly integrated across all lines of research.

All applications are due *April 22, 2005*. For more information, please contact Laura Petonito, deputy director of university programs, 202/254-5840, <http://www.fedgrants.gov/Applicants/USN/ONR/HQ/BAA05-008/Grant.html>, [laura.petonito@dhs.gov](mailto:laura.petonito@dhs.gov).

### UMD Hosts Homeland Security Research

The Department of Homeland Security's Center of Excellence for Behavioral and Social Science Research on Terrorism and Counter-Terrorism was granted to the University of Maryland (UMD).

The department anticipates providing UMD and its partners with a total of \$12 million over the course of the next three years to address these topics. UMD has assembled a team of experts from across the country and around the world, including scholars and researchers from the United States, Israel, Italy, and Kazakhstan.

This Homeland Security Center of Excellence will be directed by UMD's Gary LaFree. The research and development focus of this new center will span both international and domestic issues. Areas of work will include the sources of and responses to terrorism, the psychological impact of terrorism on society, and increasing the American public's preparedness, response, and resilience in the face of threats. Academic and policy experts will examine the motivation and intent of terrorists in order to develop strategies and tools to improve counteractions, such as understanding and forecasting the magnitude of the terrorist threat and formulating effective response strategies. The center will also consider the impact of terrorism on the public and develop risk communications techniques and relevant educational programs.

### APA Counterintelligence Fellowships

The American Psychological Association (APA) Science Directorate and Public Policy Office offers two new summer research fellowships. Both fellows will work in collaboration with senior psychologists in the Department of Defense's Counterintelligence Field Activity Office (CIFA). Open to APA members at both the postdoctoral and senior graduate level, the summer fellowships provide opportunities to spend eight weeks at CIFA's headquarters in the Washington, D.C., area. Research fellows will work on topics relevant to countering terrorist activity, reducing "insider threat," and developing counterintelligence threat trend analysis. Applications must be received by *March 1, 2005*.

For more information about the APA Science Directorate counterintelligence fellowships, go to <http://www.apa.org/ppo/funding/cifafellow.html> or contact Heather Kelly at [hkelly@apa.org](mailto:hkelly@apa.org), 202/336-5932.



## IN THE NEWS

**Steven M. Casey** was recently featured on the History Channel's *Modern Marvels: Engineering Disasters 16* program. In the episode that aired December 23, Casey was interviewed in a segment about the Torrey Canyon oil spill, an incident he wrote about in his book *Set Phasers on Stun And Other True Tales of Design, Technology, and Human Error*.

**Arthur F. Kramer** was featured in a November 21 article about hands-free cell phones and driver safety in the Champaign, Illinois, *News-Gazette*. Kramer, a professor of psychology at the University of Illinois, talked about his research on older drivers and driver distraction. According to Kramer, both younger and older drivers are less likely to notice changes on the road when using a hands-free cell phone.

The research of Georgia Tech psychology professor and HFES President **Wendy A. Rogers** was featured in the *AARP Bulletin*, Scripps Howard News Service, and *Design News*. Her study indicated that many older adults are willing to give up some privacy if it means being able to live independently longer.



## 3rd Annual User-Centered Product Design Award

During 2004, the HFES Product Design Technical Group (PDTG) conducted its 3rd Annual Product Design Award competition for innovative and user-centered approaches to human factors and industrial design. Award committee cochairs Dianne L. McMullin and Stanley H. Caplan received 13 nominations that represented a diversity of product types. A panel of six judges selected a winning product and two honorable mentions based on functional obviousness, ease of operation, and creativity. Research and methodological criteria were (a) user focus during concept development, (b) the design process, and (c) use of evaluation methods.

The three awards were presented on September 23 at the HFES Annual Meeting in New Orleans to the following recipients:

- Whirlpool Corporation for the Duet Fabric Care System (winner)
- University of Nebraska – Lincoln and Medical Center for the INTUTOOL™ Laparoscopic Surgical Tool (honorable mention)
- Insight Product Development for the Aearo Quick Latch Respirator (honorable mention)

Joy Kempic and Pam Nyberg accepted the award for Whirlpool and presented a paper about the winning product and its development at a well-attended special PDTG session. Immediately following the session, a reception was held at the PDTG business meeting to honor the recipients.

Thanks go to PDTG members Dave Aurelio, Brian Bone, Jeanne Guerin, Hugh McLoone, Nicole Prioux, and Bill Vigilante, who diligently evaluated the nominations for the design and methods used to achieve the design.

Purposes of the award are to recognize user-centered and innovative product designs, as well as research and design methods, and raise visibility of the PDTG and promote new membership. The award program has been extremely successful, and PDTG will soon publish a call for nominations for the 4th Annual Product Design Award.

PDTG also invites you to become a member and participate in its activities. For example, you could be a judge and have the opportunity to see the whole lineup of award submissions. For more information, contact Dianne McMullin (dianne.l.mcmullin@boeing.com) or Stan Caplan (scaplan@usabilityassociates.com).



Pam Nyberg (center left) and Joy Kempic (center right) hold award presented to Whirlpool by Stan Caplan (left) and Dianne McMullin (right). ☒

## HFES PUBLICATIONS

### New *Bulletin* Features Editor Calls for Contributions

HFES is pleased to announce the appointment of Pam Savage-Knepshield as the features editor of the *HFES Bulletin*. During her two-year term, she will develop stories and leads for newsworthy articles.

Pam is a research psychologist at the Army Research Laboratory (ARL) supporting efforts to understand and improve the operational and tactical design of military systems at Fort Monmouth's Communications-Electronics Command. Prior to joining ARL, she held human factors positions as a senior human factors engineer at Northrop Grumman Information Technology and was also a distinguished member of technical staff at Lucent Technologies/Bell Labs. Occasionally, Pam is a part-time lecturer at Rutgers University in the Psychology Department, where she earned her Ph.D. Her research interests include problem-solving and decision-making strategies that enhance task performance and the improvement of system usability by using human factors methods and practices early in the front-end design process.

As features editor, Pam would like to provide readers with a variety of human factors/ergonomics (HF/E) articles that help bridge

the divide between research and practice. This is an excellent arena to share recent HF/E success stories, "hot" research projects, new tools, or novel or innovative approaches that you have used to overcome obstacles encountered during the design or testing of products and services. Articles from other domains that affect or interact with HF/E are also welcome.

Please feel free to contact Pam directly (732/427-3854, psavageknepshield@arl.army.mil) if you would like to submit an article or if you have questions or comments about a potential submission. She will be glad to discuss any ideas you may have.

### Graduate Directory Update

The *HFES Directory of Human Factors/Ergonomics Graduate Programs* will be updated in the coming months. HFES invites members and nonmembers to submit new listings describing programs in any field related to HF/E. New listings should conform to the style presented in the current edition (available on the HFES Web site at <http://hfes.org/publications/2002gradschools/TofC.html>). To submit programs for inclusion in the directory, please contact Assistant Editor Jeremy Loudonback at 310/394-1811 or jeremy@hfes.org. ☒



## SHORT COURSES

**Occupational Ergonomics: Work Evaluation and Prevention of Upper Limb and Back Disorders**, February 28–March 3, 2005, Los Angeles, CA. **Ergonomic Job Analysis**, March 4–5, 2005, Los Angeles, CA. University of Michigan Center for Occupational Health and Safety Engineering, 1205 Beal Ave. – IOE Building, Ann Arbor, MI 48109-2117, <http://www.engin.umich.edu/dept/ioe/COHSE/>.

**Basics of Industrial Engineering**, March 21–23, 2005, Orlando, Florida. Frank Rath, College of Engineering, University of Wisconsin, 432 N. Lake St., Madison, WI 53706, 608/263-5989, rath@epd.engr.wisc.edu, <http://epdweb.engr.wisc.edu/WEBG587>.

**Certified Safety Professional (CSP) Review Course**, April 11–15, 2005, Chapel Hill, NC. Occupational Safety and Health Education and Research Center, University of North Carolina at Chapel Hill, 3300 Hwy. 54 West, Chapel Hill, NC 27516-8264, 888/235-3320, fax 919/966-7579, oshercww@sph.unc.edu, <http://www.sph.unc.edu/osherc/>.

**Putting Ergonomics Into Practice**, April 26–29, 2005, Columbus, Ohio. Ohio State University Ergonomics Short Course, Institute for Ergonomics, Ohio State University, 210 Baker Systems, 1971 Neil Ave., Columbus, OH 43210, <http://osuergo.eng.ohio-state.edu/Institute/index.htm>.

**Summer 2005 Human Factors Engineering Short Course**, July 25–29, 2005, and August 1–5, 2005, Ann Arbor, MI. Paul Green, University of Michigan, 2901 Baxter Rd., Ann Arbor, MI 48109-2150, 734/763-3795, pagreen@umich.edu, <http://cpd.engin.umich.edu/>. ☒

## CALENDAR

*Announcement deadlines: 1st day of the month prior to the desired issue; for events or deadlines within the first 3 weeks of a month, send information at least 2 months in advance. Items are published according to space availability.*

**APA Division 21 Annual Symposium on Applied Experimental Research**, March 3–4, 2005, Fairfax, VA. Michael D. Matthews, Dept. of Behavioral Sciences and Leadership, U.S. Military Academy, West Point, NY 10996, 845/938-3696, fax 845/938-2236, mike.matthews@usma.edu.

**8th Annual Applied Ergonomics Conference**, March 21–24, 2005, New Orleans, Louisiana. aenc@iienet.org, <http://www.appliedergo.org/conference/>.

★ **CHI 2005: Conference on Human Factors in Computing Systems**, April 2–7, 2005, Portland, OR. chi2005-help@acm.org, <http://chi2005.org/index.html>.

**Human Factors and Ergonomics Society 49th Annual Meeting**, September 26–30, 2005, Orlando, FL. info@hfes.org, <http://hfes.org/Meetings/05annualmeeting.html>. Proposal due date: February 8, 2005.

★ Indicates new listing. ☒

# RECENT TITLES FROM HFES:

## ***Guidelines for Using Anthropometric Data in Product Design*** by the HFES 300 Committee

This is the first document to present a global approach to anthropometry, extending from the use of averages and percentiles to methods appropriate for more complex designs, such as multivariate analysis. Basic and advanced methodologies to properly apply anthropometric data are described, their advantages and disadvantages are explained, and illustrative examples are provided. 76 pp., 8.5 x 11", paperback, \$75 members, \$85 nonmembers, searchable PDF on CD-ROM, \$50 HFES members, \$60 nonmembers.



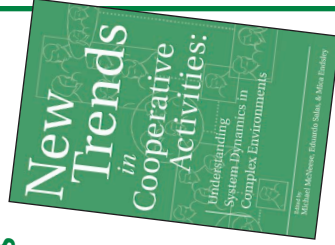
## ***Humans and Automation: System Design and Research Issues*** by Thomas B. Sheridan

This book provides a historical context for human factors and automation and then describes how the two domains interact to ensure a system in which the human and machine operate with efficiency and safety. Includes appendices and an index. 278 pp., 5.5 x 8.5", paperback, \$42.95 HFES members, \$49.95 nonmembers.



## ***New Trends in Cooperative Activities: Understanding System Dynamics in Complex Environments*** edited by Michael D. McNeese, Eduardo Salas, & Mica Endsley

In this multiperspective collection of original work, the editors have accomplished their aim to "foster a meeting of the minds of researchers and practitioners who have dreams about new visions of cooperative work and about the consequent support systems that are possible to enhance and improve cooperative work in dynamic ways." 17 chapters plus index. 328 pp., 7 x 10", paperback, \$45 HFES members, \$60 nonmembers.



# Bulletin

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## FLASH!

### HFES Elections:

Nomination ballots for the HFES elections will be mailed on March 14.

### Mark Your Calendars:

The HFES Executive Council Midyear Meeting will take place at the Royal Pacific Hotel in Orlando, Florida, April 15 and 16, 2005. A strategic planning day on April 14 will precede the meeting.

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