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From Past to Future: Building a Collective Vision for HFES 2020+

By Waldemar Karwowski, HFES President

As we approached the 50th Annual Meeting, recently celebrated in San Francisco, our Society examined many of its past accomplishments. From this introspection, we have gained a better appreciation for the various contributions our members have made to the discipline and profession over the last 50 years. As your 50th president, I am honored to join you as we make history over the next 50 years.

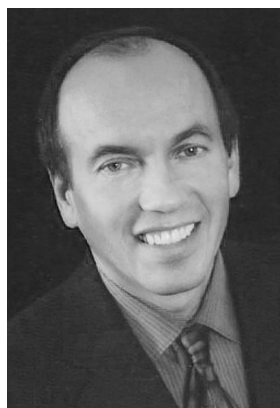
To properly begin this journey, I propose that we collaborate to develop a unified vision for our discipline, our profession, and our Society – “a collective vision for HFES 2020+.” To move in this direction, we should pause and examine some of the critical issues that have surfaced in recent years. These issues are illustrated by the following questions:

- Where is the human factors/ergonomics (HF/E) discipline heading?
- How do we develop the HF/E profession to its fullest?
- How can HFES act as a leader in HF/E development?
- How can HFES add value to the global society at large?

As a starting point, let me discuss our mission and vision statements. Our mission is “to help our members advance the science, philosophy, and practice of human-centered design.” Furthermore, “we envision a widely shared science, philosophy, and practice that adapt technology to enhance human performance and improve the quality of human life” (2003 HFES Strategic Planning Day). Assuming that our goals are reflected in these statements, what technology in particular should we aim to adapt in order to *optimize human well-being and system performance*? At a more fundamental level, do we understand and can we effectively cope with the rapidly converging technologies of today, such as information technology, biotechnology, and nanotechnology (see Roco & Bainbridge, 2003)? Finally, from a global perspective, do we understand the world in which we live? Can we predict the role of technology in its future?

Looking Ahead: Nanoergonomics?

At this moment, we are witnessing the beginning of a technological revolution made possible by developments in nanoscience



and nanotechnology that make it possible to manipulate matter at the molecular (10^{-9} meter) level (see National Research Council, 2002). Much as was the case with previous technological advances, the potential effects of nanotechnology cannot be fully appreciated today. For example, when it was invented in 1948, no one could appreciate the tremendous impact and benefit the transistor would have. Almost 60 years later, we have seen this simple yet brilliant invention become the basis for information technology. Consequently, we have witnessed the advent of the Internet and Web, which have made our world seemingly flat (see Friedman, 2002).

Although we may not grasp its potential reach, we can venture to speculate that the nanotechnological revolution will profoundly affect not only our everyday lives but also the science and practice of human factors/ergonomics. Examples include the development of intelligent, evolvable, and adaptive systems across many human endeavors, including computing and data storage, materials and manufacturing, health and medicine, energy and the environment, transportation, national security, and space exploration (National Academy of Engineering, 2004).

Developments in technology have a direct impact on our own discipline by directly or indirectly facilitating the expansion of our existing knowledge base, theory, and subsequent applications. A quick overview of HF/E historical trends confirms this position, as our field has evolved from the physical and perceptual to the cognitive; from system design orientation and macroergonomics to ecological, affective, and information ergonomics. The most recent illustration of technology stimulating the evolution of our field is the advent of neuroergonomics (Parasuraman, 2003). I am confident that we will continue this theme and successfully adapt nanotechnology to *enhance human performance and improve the quality of human life* by developing and applying a new domain: nanoergonomics (Karwowski, 2005).

But how will nanotechnology affect what we do? From the HF/E point of view, nanotechnology may enable us to access the human central nervous system in order to preserve and enhance our perceptual and cognitive abilities, integrate important features of human cognition into machines, or develop cognitive prosthetics to enhance human performance (Roco & Bainbridge, 2003).

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From Past to Future: Building a Collective Vision...

(continued from page 1)

For example, by mapping the single-cell recordings of neural responses to different stimuli, we may be able to deduce how sensory information is processed and muscles are controlled – data that are critical in the prevention of musculoskeletal injury.

HFES Meeting the Needs of the Future

In order to meet the goal of developing a unified vision, the HFES Executive Council is forming a task force that, first, will examine the direction HF/E is headed by considering opportunities and challenges for research and practice, and, second, develop a vision for the future of our discipline in 2020+. Your input to this task force is essential and will be very much appreciated (please send your comments to wkarwowski@hfes.org).

On a global scale, our profession faces challenging questions related to how we can contribute to the betterment of society at large. Although technological advancement has the potential to improve the human condition, its inherent danger lies in its ability to create unforeseen consequences. Our aim in HF/E is to minimize the unwanted consequences of trends in contemporary science, engineering, and technology, as predicted by the Japan Ministry of Education, Science and Technology (2000):

- “Developments in genetics (DNA, human evolution, creation of an artificial life, outer space exploration, living outside Earth)
- Developments in neurosciences (human cognitive processes through artificial systems)
- Revolution in medicine and health care (cell and organ regeneration, nanorobotics for diagnostics and therapy, super-prosthesis)
- Elimination of starvation and malnutrition (artificial photosynthesis of foods, safe genetic foods manipulation)
- Full recycling of resources and reusable energy (biomass/nanotechnology)
- Planning for new human habitats (outer space cities, 100% underground industrial manufacturing, separation of human habitat from natural environments, protection of diversity of life forms on Earth)
- Clean-up of the negative effects of 20th century on environment (organisms for environmental cleaning, regeneration of the ozone)

- Communication (nonverbal communication technology, virtual presence systems)
- Computerized democracy
- Transportation and travel (natural sources of clean energy, automated transport systems, revolution in supersonic small aircraft and supersonic travel, underwater ocean travel)
- Safety and control over one’s life (prevention of crime by brain intervention, human error avoidance technology, control of the forces of nature, truly intelligent systems for safety in all forms of transport).”

In adding value to the global society at large, we should determine how HFES can lead the development of the HF/E discipline and profession. In order to address the Society’s role in HF/E development, we need to examine our own purpose as we define it today. In simple terms, our society exists in order *to advance and represent the HF/E discipline and serve our members*. How well do we actually fulfill this purpose? HFES is a complex organization guided by our mission, vision, and strategic goals. These goals include the following:

- Science and Practice Goal: Advance both the science and practice of HF/E to maintain HFES as the premier scientific body in the field.
- Education and Training Goal: Promote the teaching of HF/E science, philosophy, and practice.
- Peer Networking Goal: Promote the evaluation and exchange of information among HF/E researchers and practitioners.
- Outreach Goal: Promote the exchange of information between HF/E professionals and those who need our services.
- Organizational Excellence Goal: Serve and represent the members as the premier scientific, engineering, and practice society.

How are these goals translated into the operational rules responsible for the day-to-day functioning of our organization? According to Nolan et al. (1993), the “strategic decisions determine what an organization will do – the leadership task – and tactical decisions determine how it will be done – the administrator’s or manager’s task.” Furthermore, what worked well over the last 50 years may not be (and probably is not) what our organization needs to function in today’s world.

Our overall strategy defines what we do in the future, and defining it is the responsibility of not only the HFES leadership but all members of our Society. By devoting a strategic planning day at the midyear Executive Council meeting this past April, we have started to lay the groundwork for the process of building a collective vision for HFES 2020+. I hope we will continue in this direction in the years to come.

Setting the Direction for the Next 50 Years

Developing a collective vision for the future of HFES requires that we focus our attention on the following issues:

- Where should HFES be going?
- How can we take our Society to a new and better place?
- How do we get there?
- What changes (if any) are needed?
- What are the current and future barriers to such changes within HFES?
- What are our core values that will guide the process of change?



Bulletin

Volume 49, Number 11 November 2006

The *HFES Bulletin* (ISSN 1527-3660) is published 11 times a year by the Human Factors and Ergonomics Society, 1124 Montana Ave., Suite B, Santa Monica, CA 90403 USA, <http://hfes.org>. Address inquiries and address changes to HFES, P.O. Box 1369, Santa Monica, CA 90406-1369 USA, 310/394-1811, fax 310/394-2410, <http://hfes.org>.

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In order to effectively address these questions, I believe we need to empower HFES members to do what they do best. To empower means to equip or supply with ability, to enable. How we *empower* various HFES constituencies and our individual members, and how we facilitate their use of respective talents to contribute to our Society, becomes a critical point for the success of our organization and its future.

Responses to the blast e-mail questionnaire that I sent in March confirm that HFES members overwhelmingly desire to be involved in Society affairs. Our Society greatly benefits from this strong desire. Although at times we consider the question, "Who cares about our discipline and our profession?" the clear answer is that we all do. Additional challenges we must confront and overcome include those pointed out in response to the questionnaire:

- Where will our future members come from?
- What is the trade-off between the values of HFES membership versus cost?
- How can we better serve the needs of members who are practitioners?
- How can we ensure open and effective two-way communication between the Society's leadership and its members at large?
- How can we facilitate the expansion of research and applications?
- How can we advance public advocacy, address social issues, and effectively promote our discipline and profession?
- How can HFES, as the premier organization representing the human factors/ergonomics profession, help to develop HF/E-literate citizens in the United States and around the world?

From an organizational standpoint, we strive to streamline action and minimize disruption. Hence, the question of efficiency arises: What might be missing in the current HFES structure and mode of everyday functioning that prevents us from effectively empowering our organizational components (i.e., committees and individuals)? What rules and procedures may need to be changed to empower our various constituencies? I invite and hope to hear your advice, comments, opinions, concerns, and ideas about the future of HFES.

While in San Francisco, the Executive Council decided to restructure itself in order to better perform its legislative functions, with a clear focus on developing and continuously adapting strategies in response to dynamic changes occurring in the outside world. Furthermore, we are in the process of forming several task forces whose roles will include examining our needs and developing a vision in the following targeted areas: technical groups, annual meetings, the Society Web site, and opportunities for HF/E practitioners.

Looking inward, we need to address the question of what constitutes our core values. The core values, which are the soul of any organization, are a set of attitudes and beliefs that influence the way our members and various HFES constituencies behave now and in the future. Reflecting on our culture, we should ask if these are our core values:

- Openness of ideas
- Flexibility and diversity of thought
- Transparency of rules and procedures
- Ability to think big

- Ability to plan for and realize changes
- Introspection and reflection
- Two-way communication with members


Although developing a vision for the HF/E discipline, the HF/E profession, and HFES itself will require persistence and patience, it will definitively help us to remove existing barriers to change, empower members to utilize their unique skills to contribute to our organization, follow our core values of *openness and transparency*, and facilitate the process of reinventing our technical groups, developing a world-class Web site, enhancing our annual meetings, better addressing the needs of practitioners, and achieving greater social impact worldwide.

This is a call to action for all of us. Please share with me your opinions regarding how we can better serve our discipline and profession, where HFES should aspire to be in the year 2020+, and how we can achieve this vision.

This is your Society – take it.

Waldemar Karwowski is professor of industrial engineering and director of the Center for Industrial Ergonomics at the University of Louisville. He may be reached at wkarwowski@hfes.org.

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ANNUAL MEETING

Preliminary Call for Proposals: 51st Annual Meeting

The Human Factors and Ergonomics Society's Annual Meeting is the primary gathering of researchers and practitioners in the field of human factors/ergonomics and related areas. The 51st Annual Meeting, which takes place October 1–5, 2007, at the Baltimore Waterfront Marriott Hotel, continues the Society's celebrations in honor of the 50th anniversary with further explorations of our historical foundations and vision for the future of our profession. The Technical Program Committee encourages creative proposals for program materials of all kinds.

New formats for presenting human factors/ergonomics (HF/E)

efforts are strongly encouraged. Participants are invited to submit proposals including case studies, debates, demonstrations, competitive product designs, new methodologies, on-site experiments, and posters involving both fixed and dynamic information presentation. Examples of recent innovative formats include “You Have 5 Minutes to Convince Me” and the 2006 Design Chautauqua.

Key Dates

The fully detailed Call for Proposals will be available at the HFES Web site the week of December 4, 2007. The deadline for submitting any type of proposal is February 12. Acceptance/rejection letters will be sent in mid-April. Proceedings papers will be due in June.

New for 2007: Proposal Formatting

In response to feedback from past presenters, the Technical Program Committee has implemented a change in the proposal submission process. Proposers will be required to format the 150-word abstract and 2000-word presentation in the same two-column layout that applies to proceedings papers, with the same five-page limit. If a proposal is accepted, the author would update the proposal based on reviewer comments and then upload the final version for publication in the proceedings. This applies to all presentation types (lecture, invited symposium, discussion panel, poster, demonstration, etc.).

Submitting Proposals

Detailed instructions for submitting materials will be included in the online Call for Proposals. All submissions will be uploaded to a Web site to be listed in the instructions. **You must have an e-mail address** to submit a proposal because all correspondence regarding your submission will be done via e-mail.

A single contributor will be responsible for uploading each submission, including full-session invited symposia. In order to reduce confusion between authors, reviewers, and others, contributors of full sessions are encouraged to collect materials from all authors or symposium members and upload them to the Web site.

Papers that have been published previously or presented at another professional meeting may not be submitted. All research and analyses described in your proposal must be complete at the time the proposal is submitted. Program Chairs may reject, with or without review, papers that do not present completed work. The sole exception to this policy is for student work submitted for consideration in the Student Forum track, in which case the proposer may report on work in progress.

Note that for all accepted submissions, one of the authors must attend the meeting to present the work. All presenters are required to pay the meeting registration fee (but see below regarding nonmember presenters who attend one day only).

If you know of nonmembers who might be interested in submitting a proposal, please send their contact information to the Communications Department (lois@hfes.org, 310/394-1811), and we will invite them to submit their work.

A nonmember whose work is accepted and who plans to attend only on the day of his or her presentation may request a waiver of the one-day nonmember registration fee.

Proceedings Publication and HFES Copyright

In May, authors of accepted proposals will receive instructions for uploading their final, revised submissions for publication in the proceedings CD-ROM. There is a strict five-page limit.

HFES requires a transfer of copyright unless the work was performed by U.S. government employees or by employees of non-U.S. government agencies. However, the author may reuse the material for any purpose without restriction or fee. If you have questions about the HFES copyright transfer policy, please contact the HFES Communications Department (310/394-1811, lois@hfes.org). ☒

HUMAN FACTORS

What's New at *Human Factors*?

By Nancy Cooke, Editor

It is hard to believe that it has been nearly two years since I took on the editorship of *Human Factors*. It has been a very productive two years, and I continue to be amazed at the quality of material submitted to the journal and the excellent feedback provided by the journal staff, reviewers, editorial board members, and associate editors. All this hard work pays off in a high-quality scholarly journal.

We continue to explore ideas for increasing the impact of the journal, recognizing that this is a strategic objective of HFES and a very important consideration for academics. Although it is too early to take credit for it, I note that the 2005 impact factor of .777 is up a few points from the 2004 figure of .747, and this is encouraging. But we have a long way to go in terms of impact. We're working on a running list of ideas for improving impact, with most notable recent efforts focused on drawing attention to “hot topics” through press releases and to decreasing production lag by adding pages and increasing the frequency of publication.

Specifically, since November 2004, when HFES began using Manuscript Central for paper submission and review, we have experienced an increase in submissions to *Human Factors* and a reduction in the time from submission to acceptance. The result has been an increase in the backlog of accepted manuscripts. The Publications Committee took steps to address the backlog recently when it proposed to the HFES Executive Council that the journal accommodate more material. Council agreed, and as a result, we will begin publishing *Human Factors* on a bimonthly schedule beginning in 2007. Issues will appear in February, April, June, August, October, and December (the same schedule as for the years 1958–1992).

In addition, we will publish more pages starting next year, going from 832 to 1056 pages annually. Finally, to increase the visibility of the journal online, we will expand the number of back volumes on IngentaConnect so that by the end of next year, issues from 1995 through 2007 will be available. We believe these changes will not only shorten the time to publication but also increase the journal's impact factor.

HUMAN FACTORS, cont.

Planning continues for the 50th anniversary of the journal in 2008. Thus far we have plans for a 2008 special section that highlights lessons learned and key contributions of various areas within the discipline. There is also a *Best of Human Factors* book in the works that will contain reprints of some of the most influential articles in various areas. In addition, we are planning a panel of past *Human Factors* editors for the 2008 Annual Meeting.

Among some of the recent improvements to *Human Factors* is a new policy for reviewers that assures authors that they are getting reviews from qualified reviewers, selected by an associate editor on the basis of reviewer interest and expertise. The policy also makes it possible for reviewers to involve talented students with the caveat that the student review does not replace, but supplements, the reviewer's own comments. See <http://www.hfes.org/Web/PubPages/hfrevguide.html> for details.

That is it for new news! Thanks so much for making my job fun and rewarding. I look forward to the next two years. ☒

NATIONAL ERGONOMICS MONTH

“Games to Explain HF” Goes to NSBE

By Sharnnia Artis

Have you ever had the desire to go out into the community to increase the awareness of human factors and ergonomics to young, ambitious, and vivacious high school students, but you weren't quite sure what systematic process or user-centered tool to utilize to captivate these impressionable minds? In March, the HFES Diversity Committee presented the popular “Games to Explain Human Factors: Come, Participate, Have Fun!!!” to high school students, teachers, and parents at the National Society of Black Engineers (NSBE) conference in Pittsburgh. Below are a few snapshots of how much fun and educational “Games” can be.

Auditory systems, anyone? In the photo below, I'm tapping two pencils together while Jackson Brebnor (a sophomore at the High School for Math, Science and Engineering at City College of New York), sitting with his eyes closed, attempts to locate the position of the pencils by pointing to where he thinks they are. When I tap the pencils together on Jackson's left or right, he is able to point correctly. But when I tap the pencils directly in front of, directly above, or directly behind Jackson, he can only guess where they are. You can see that although I'm tapping the pencils in front of him, he is pointing to the back of his head. This erro-



neous guess is caused by the fact that people localize sound by which ear hears it first when visual information is not available. Following this game, auditory alarms and the importance of systems designers were discussed.

Blind date anyone? No, the photo below is not a version of Blind Date – this is more like an opportunity to perceptually adapt. Rebecca Alvarez (a senior at Allen High School in Allentown, PA), left, is wearing goggles that invert the visual image. Lawrence Stewart (a sophomore at George Westinghouse High School), right, is blindfolded and does not know that Rebecca is wearing



the goggles. Rebecca and Lawrence attempt to shake hands, then Rebecca attempts to draw a smiling face and trace over it. Based on what Rebecca tells him, Lawrence attempts to figure out what Rebecca is doing and why the task is so difficult. Then he gets to try the goggles. After this game, we talked about perceptual adaptation.

Now who's the hardest working volunteer? At the conclusion of Games, the audience members who participated extensively were identified as semifinalists in the “Hardest-Working Volunteer Competition.” Rebecca Alvarez, an aspiring veterinary assistant from Allen High School, was elected the Hardest Working Volunteer (see the photo at right).

October is National Ergonomics Month (NEM), and the HFES Diversity Committee is committed to promoting a user-friendly tool to get you involved in your community to promote HF/E. Games, a popular, informative, entertaining, nontraditional introduction to HF/E for students, teachers, and practitioners, is a great way to promote the field. To read more about Games, go to the HFES NEM Web site (<http://hfesnem.org/presentations.htm>). To request the password to download the Games presentations, follow the “Contact us” navigation bar on the left or the hyperlink in the Games description.



Sharnnia Artis, a Ph.D. candidate in industrial and systems engineering at Virginia Tech, is an HFES Student Affiliate member and a member of the HFES Diversity Committee. You may contact Sharnnia at sartis@vt.edu. ☒


MEMBERSHIP

Renew Your Membership for 2007!

HFES is grateful for your membership! Dues renewal statements have been mailed, and we look forward to continuing to serve you in 2007.

Membership renewal is easy. Either fill out and return the renewal form, or take advantage of the convenience of renewing online at hfes.org. All transactions are secure. To renew online, log in with your username and password (if you've misplaced your login ID, just ask the Member Services Department at membership@hfes.org). In addition to renewing your HFES membership, you can also join or renew your technical group memberships or change your delivery preference for *Human Factors* (note that delivery preference for the journal can be changed only once a year at renewal time).

IMPORTANT: To ensure that your correct contact information appears in the *2007–2008 HFES Directory and Yearbook*, you must renew by January 31, 2007. You will also avoid the postage surcharge when you renew by January 31.

We hope you'll continue your participation in HFES and also encourage your colleagues to join. Help us continue our year-long celebration of the Society's 50th anniversary! 

CALLS FOR PAPERS

IFAC/IEA Conference

Submissions are invited for the International Federation of Automatic Control 10th Annual Symposium, to be held September 4–6, 2007, in Seoul, Korea. Topics include analysis, design, and evaluation of human-machine systems; application domains of human-machine systems; and human/humane aspects of human-machine systems.

Submissions for abstracts are due *November 30, 2006*, and the deadline for full paper submissions is *April 30, 2007*. For more information, visit <http://www.ifac-bms-2007.com/>.


Creativity and Cognition 2007

Contributions are sought for the 6th Annual Creativity and Cognition Conference, to be held June 13–15, 2007, in Washington, D.C. Topics include interface design, methods and models, practices, education and training, social mechanisms in creative communities, and emerging technologies.

The deadline for online-only submission is *December 16, 2006*. For more information, visit <http://www.cs.umd.edu/bcil/CC2007/>.

PREMUS 2007

Abstracts for papers or posters on the prevention of work-related musculoskeletal disorders for the 6th International PREMUS 2007 are invited. The conference will take place August 26–30, 2007, in Boston. Themes include biomechanics, intervention, work organization and issues, methodology, and health promotion.

The deadline is *January 15, 2007*. Submissions should be made via the PREMUS Web site, <http://www.premus2007.org>. 



NYU Graduate School of Arts and Science

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Assistant Professor in Industrial Engineering

The Department of Industrial Engineering at Clemson University invites applications for a tenure track faculty position at the assistant professor rank beginning in August 2007.

The successful candidate will have research interests in human factors and ergonomics or operations research and logistics as well as the ability to direct this research in support of the University's related Academic Emphasis Areas (Health Systems, Human Factors and Transportation, and Information Technology).

An earned doctorate in Industrial Engineering or a closely related field is required. The position involves contributing to the undergraduate and graduate teaching missions of the Department. Candidates are expected to develop and sustain an outstanding program of research and scholarship.

Clemson University is the land-grant university of South Carolina and has been ranked 30th among the nation's 162 public doctoral granting institutions in the latest annual *U.S. News & World Report* college rankings. The department offers the B.S., M.S. and Ph.D. degrees, has ten faculty members, and serves a full-time student body of approximately 160 undergraduates, 30 masters and 25 doctoral students. More information on all aspects of the department is available at <http://www.ces.clemson.edu/ie>.

Applications should include a resume; narratives of research goals and teaching interests (one page each) including their relation to the emphasis areas above, and names and addresses of three references. Application materials should be sent to:

D. L. Kimbler, Ph.D., P.E.
110 Freeman Hall
Department of Industrial Engineering
Clemson University
Clemson, SC 29634-0920

Electronic applications (Adobe PDF format only) may be emailed to kimbler@clemson.edu. Selection of candidates for campus interviews will begin December 1, 2006; recruitment will continue until the position is filled.

Clemson University is an AA/EEO employer and does not discriminate against any person or group on the basis of age, color, disability, gender, national origin, race, religion, sexual orientation, or veteran's status. We seek to build a culturally diverse faculty and actively seek applications from female and minority candidates.

University of Wisconsin-Madison Department of Industrial and Systems Engineering

The Department of Industrial and Systems Engineering (ISyE) at the University of Wisconsin-Madison invites applicants for a tenure-track or tenured position, with a research emphasis in cognitive ergonomics and human-computer interaction, beginning September 2007. The person appointed to this position will be expected to teach courses at both undergraduate and graduate levels. Applicants should have an outstanding academic record, exceptional potential for creative research, and a commitment to both undergraduate and graduate education. A Ph.D. degree or credentials equivalent to it in the judgment of the ISyE executive committee is required. For a tenured position, candidates should have at least six years in a university faculty position, or government or industrial research position, and a demonstrated track record of national leadership in industrial engineering or a related field, with academic accomplishments as a scholar and teacher that meet the standards for a tenured appointment in the ISyE Department. Send letter of application and curriculum vitae to: **Faculty Recruitment Group, Department of Industrial and Systems Engineering, 1513 University Avenue, Madison, WI 53706**. Also ensure that three confidential letters of reference from well respected authorities in the field be sent directly to Professor Harold J. Steudel at the same address. To ensure consideration, applications should be received by December 1, 2006, however the search will continue until the positions are filled. Unless confidentiality is requested in writing, information regarding applicants must be released upon request. Finalists cannot be guaranteed confidentiality. UW-Madison is an equal opportunity/affirmative action employer. We promote excellence through diversity and encourage all qualified individuals to apply.

TEXAS TECH UNIVERSITY The E.L. Jr. and Sue Derr Professorship

The Department of Industrial Engineering invites applications and nominations for the E.L. Jr. and Sue Derr Professorship in Industrial Engineering. We are seeking a person with a distinguished academic and research background in the area of ergonomics. The Industrial Engineering Department at Texas Tech University has supported a nationally prominent academic program in ergonomics for more than 40 years and has graduated over 50 Ph.D. level scientists. We have a well-established faculty, a strong student body, and extensive research facilities in this area. The candidate we are seeking will be expected to establish a world-class research program in ergonomics within a 5-year period. The position includes a state supported faculty position in Industrial Engineering as well as an endowment of over \$1 million. Candidates must possess academic credentials consistent with an appointment to the rank of Professor in the College of Engineering. These include: (1) an earned Ph.D. in Industrial Engineering or a related field; (2) a strong record of research publication in the area of ergonomics; (3) a strong record of acquiring external funding to support research; and (4) a strong record of teaching excellence at both the graduate and undergraduate level. Screening will begin upon receipt of applications and will continue until position is filled. Applications will be treated in strict confidence. Curriculum vitae and at least four references should be submitted electronically at <http://jobs.texastech.edu>. Search Postings for Requisition No. 72452. Additional departmental information is available at www.ie.ttu.edu. Questions regarding the Derr Professorship should be directed to Dr. Jeff Woldstad, Jeff.Woldstad@ttu.edu, 806/742-3451.

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women and minorities are encouraged to apply.

Faculty Position Announcement University of Maryland School of Medicine

We have an exciting position open for an enthusiastic researcher to join our research group. The position has the rank of Assistant Professor, in the Division of Research in Patient Safety (established in 2005 to conduct research on fundamentals of improving quality and safety with human factors methodologies and information technologies). As part of the medical school with a long tradition of collaborative research activities, the Division has unparalleled access to and indeed obligations to work closely with University of Maryland Medical Center in its pursuit of excellence in quality and safety. The Division has received tremendous support from hospitals and academic institutions, with dedicated office and laboratory space. External funding agencies have included National Science Foundation, Army Research Institute, and Agency for Healthcare Research and Quality.

The exciting opportunity is for someone with a passion of advancing fundamentals of human factors in patient safety, committed to excellence and high standard, and a desire to lead research activities and play a leading role in applying human factors methodologies in improving patient safety in hospital settings. To do this, you should have **(1)** PhD in human factors, industrial engineering, engineering psychology, or similar, **(2)** 2-4 years of experience in research in patient safety, ideally with research grant experience, **(3)** Intimate knowledge of clinical environment to conduct field research. Other aspects of your experience will be greatly beneficial include **(4)** Teaching human factors principles to clinicians, **(5)** Consulting on patient safety, quality improvement, & task analysis, **(6)** Consulting on deployment of information technology in hospitals.

Salary is commensurate with experience, with standard university benefits including retirement contribution and health insurance. For more information, please see the website hrfp.umaryland.edu and contact Yan Xiao, PhD at yxiao@maryland.edu. The University of Maryland, Baltimore is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply.

Bulletin

Volume 49, Number 11 November 2006

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POSTMASTER:

Send address changes to the HFES Bulletin,
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P.O. Box 1369, Santa Monica, CA 90406-1369 USA,
310/394-1811, fax 310/394-2410, <http://hfes.org>

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Opinions expressed in BULLETIN articles are those of the authors and should not be considered as expressions of official policy by the Human Factors and Ergonomics Society.



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FLASH!

2007 Renewals Deadline

This month, you will begin to receive by mail your dues renewals for 2007. The deadline to renew your membership without incurring a \$15 postage surcharge is January 31, 2007. So please renew promptly!

2007 Applications for Fellows

The HFES Fellows Selection Committee invites applications for Fellows and Honorary Fellows to be elected for 2007. Applications must be received in the HFES Central Office no later than February 1, 2007. To download the complete application package, go to <http://www.hfes.org/web/Awards&Fellows/fellows.html>.

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