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**IEA 2000/
HFES 2000
Congress
Highlights**

The organizers of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Society invite you to attend what promises to be the largest gathering of human factors/ergonomics professionals in the history of the field. Details about the workshops, technical program, facility tours, social events, and sightseeing tours can now be found on the Web at <http://iea2000.hfes.org> and will soon be in your mailbox. This article highlights some of the features of the Congress.

Technical Program

Under the able supervision of both IEA and HFES Technical Group program chairs, a comprehensive technical program has been prepared, consisting of more than 2000 individual presentations organized into research/case study paper sessions, single-session symposia, panels, posters sessions, and demonstrations focusing on a broad range of human factors/ergonomics topics. Scientific Program Chair Ogden Brown, Jr., has organized 33 Multiple-Session International Symposia, each of which encompasses two to eight sessions. In addition, Brown has pulled together an extensive list of plenary speakers who represent numerous domains within human factors/ergonomics.

The technical program gets started Monday morning with the Grand Opening Plenary Session, when the Congress organizers welcome attendees and introduce the keynote speaker (to be announced). Also featured in this kick-off session are addresses by IEA and HFES presidents, multimedia presentations, and entertainment.

Visit the iea2000.hfes.org Web site to view the tentative schedule of Technical Group sessions, Multiple-Session International Symposia, Workshops, and Plenary Speeches. An on-line searchable Preliminary Program will be available at the site later this month.

Workshops

Plan to arrive early to take advantage of 20 workshops offered on Saturday and Sunday, July 29 and 30. (Four more workshops will be held throughout the week.) Topics include Web design,

cognitive task analysis, questionnaire design, measuring workload, human performance modeling, computer workstation design, and anthropometry. Workshops are geared for participants at all levels, from beginners to experts. Continuing Education Units are available from Rice University.

Professional Tours

Choose from 19 tours of San Diego-area facilities with features of interest to human factors/ergonomics professionals. Sites include the Intuit Usability Lab, San Onofre Nuclear Generating Station, the U.S. Navy Advanced Display and Human-Computer Interface Lab, Sony Electronics, Nissan Design International, and more. (Some tours require separate security registration or Social Security or passport identification. See the Registration Packet for details.)



Special Events

Don't miss the Welcoming Reception on Sunday evening, July 30. You'll have an opportunity to interact with colleagues from around the world while enjoying food, drinks, and entertainment.

Students are invited to a special reception in their honor on Monday evening, July 31, where they can interact with members of the HFES Executive Council and IEA Executive Committee, mingle with other students, and enjoy hors d'oeuvres and a cash bar. Also planned for Monday evening is a reception to welcome new HFES members.

A unique feature of the Congress will be the daily box lunch seminars with many of the plenary speakers. Intended primarily for the benefit of students, all attendees are invited to participate.

On Wednesday evening, August 2, reserve your place at the Congress Banquet and HFES Awards Ceremony to witness the recognition of distinguished winners of Society awards and the induction of newly elected HFES Fellows.

Three excellent post-Congress tours are offered to help you unwind after the meeting. Choose from four days in Las Vegas, four days in San Francisco and the wine country of Napa and Sonoma Valleys, or six days in Maui, Hawaii. These packages

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HFES Position Statement

The following statement was submitted to the Occupational Safety and Health Administration (OSHA) on February 22, 2000.

The Human Factors and Ergonomics Society (HFES) is the largest organization of human factors/ergonomics scientists, engineers, and practitioners, representing 5,000 members in the United States and from countries around the world. HFES supports the development and application of scientific and engineering principles that help to prevent and protect workers from musculoskeletal disorders (MSDs), as well as those that enhance the comfort, safety, and productivity of workers.

HFES is concerned about the prevalence of MSDs in the workplace. It is the HFES position, that there are well-established principles and a solid foundation of practice that substantiate the efficacy of ergonomics interventions to prevent MSDs. This knowledge base, developed over the past 60 years, provides more than sufficient understanding to enable the occurrence of MSD problems in the workplace to be addressed effectively.

HFES supports the technical bases of the draft regulation regarding work-related MSDs issued by the Occupational Safety and Health Administration (OSHA) in November 1999. HFES believes there is clear scientific evidence of associations between work-related MSDs and workplace risk factors and that ergonomics programs and specific ergonomics interventions can reduce the occurrence of MSDs. The Society commends OSHA for its reliance on the scientific knowledge in ergonomics as a guide for the development of its proposed regulation. ☒

Maximize Your Time at the Annual Meeting

By Jim Hitt and Eduardo Salas

This article was originally intended to help students make the most of their visit to the HFES annual meeting. This year's combined meeting holds even more opportunities, and students are strongly encouraged to attend and take full advantage of the Congress.

IEA 2000/HFES 2000, this summer's joint meeting of the International Ergonomics Society and HFES, promises an unusually full plate of special events and opportunities for undergraduate and graduate students. In addition to 5 intense days of paper and poster presentations, symposia, panel discussions, demonstrations, tours, and workshops, students will have the extraordinary experience of interacting with more than 3,000 human factors/ergonomics (HF/E) professionals from around the world.

Events and Activities

Many of the meeting activities are specifically aimed at students, and some promote social and professional interaction between students and professionals.

The Student Reception, scheduled this year for Monday evening, July 31, is one of the most popular events at HFES annual meetings. Besides the lure of free food, students from programs around the world get to meet in an informal setting. At this event, which is also attended by members of the HFES Executive Council, winners of the awards for Outstanding Student Chapter and Student Member with Honors are announced.

At IEA 2000/HFES 2000, student registrants are invited to meet with plenary session speakers Tuesday through Friday over box lunches (available for purchase). Details will be included in the final program, distributed at the Congress.

Each HFES technical group (TG) hosts a business meeting to discuss current issues related to its area of specialty. These meetings are an excellent opportunity for students to meet HF/E professionals in their areas of interest. Many TGs offer student awards for the best presentation at the meeting or best student submission for a TG newsletter.

Since 1969, the Society has offered an award for the best student presentation at the conference, now called the Alphonse Chapanis Best Student Paper Award. The winner of this award is recognized formally at the awards banquet and receives a cash prize. In addition, winners' names are listed in the HFES directory.

Each year HFES offers workshops on various topics, with reduced fees for students. These workshops offer learning opportunities outside the classroom, and continuing education units are available. This summer, 24 workshops are offered, most of them on Saturday and Sunday, July 29 and 30.

The meeting also features a number of technical site tours highlighting the HF/E efforts within government agencies, industries, and universities.

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Top 20th-Century Engineering Achievements

Numerous paper and panel sessions specifically address students' issues. Typically sponsored by the HFES Educators' Professional TG, these sessions have covered such issues as internship opportunities, strategies to survive graduate school, and approaches for transitioning from academic to industry work. Focused efforts such as these reinforce the Society's belief in the development of its student members.

One of the best opportunities available to student members is the HFES Placement Service. If you will be looking for a job within the next year, make sure you post your résumé at <http://hfes.org>. When you see jobs or employers that you are interested in meeting, send them your résumé and then know you will be available for an interview on site. Many employers do a large part of their hiring at the Placement Service.

Students receive discounts on the registration fee. This fee can be reimbursed in exchange for eight hours of volunteer service during the meeting. Some volunteer activities include helping with the Placement Service (a great way to meet employers) or setting up for workshops or sessions. Not only does volunteering ease the student's financial burden, it provides many opportunities to interact with other members. To sign up, contact 2000 Volunteers Coordinator Suzanne Dawes at suzanne.m.dawes@aero.org.

Strategies

To make the most of the HFES annual meeting, we recommend the following strategies for students:

1. Attend a wide variety of the activities and events offered to experience a wide range of activities and to meet other students and professionals. This will further enhance your overall educational experience.
2. Consult the Preliminary Program and plan how you will spend your time at the conference in advance. The 2000 program will be listed at <http://iea2000.hfes.org> this month.
3. Get involved!!! If HF/E is to be your career field, make the most of it. The meeting is a great place to begin professional service.
4. Have goals. Create four or five goals to achieve while at the meeting, whether they are to meet certain professionals, to search for internships or jobs, or to give a great presentation.
5. Be professional. As always, first impressions are important.

There are two key themes implicit in the strategies we just described: Students should (a) take initiative and (b) get involved. The professionals you meet today will be the employers, mentors, and colleagues of tomorrow.

To learn more about the IEA 2000/HFES 2000 Congress in San Diego, visit <http://iea2000.hfes.org>.

Jim Hitt is a fourth-year graduate student in the human factors psychology program at the University of Central Florida. Eduardo Salas is the program chair of the human factors program at the University of Central Florida.



Last year the National Academy of Engineering (NAE) developed a public awareness program focusing on the positive contributions made by engineers and engineering societies to human life in the last century. Twenty-nine professional engineering societies responded to the call for nominations of any engineering achievement that they believed represented the greatest engineering achievement in the 20th century. The resulting 105 nominations were ranked by a committee of academy members, who then selected the top 20 achievements.

On February 22, 2000, astronaut/engineer Neil Armstrong, speaking on behalf of NAE, delivered a statement and announced the top 20 achievements, listed below.

1. Electrification – The vast networks of electricity that power the developed world.
2. Automobile – Revolutionary manufacturing practices made the automobile the world's major mode of transportation by making cars more reliable and affordable to the masses.
3. Airplane – Flying made the world accessible, spurring globalization on a grand scale.
4. Safe and abundant water – Preventing the spread of disease, increasing life expectancy.
5. Electronics – Vacuum tubes and, later, transistors that underline nearly all modern life.
6. Radio and Television – Dramatically changed the way the world received information and entertainment.
7. Agricultural Mechanization – Leading to a vastly larger, safer, less costly food supply.
8. Computers – The heart of the numerous operations and systems that impact our lives.
9. Telephone – Changing the way the world communicates personally and in business.
10. Air Conditioning and Refrigeration – Beyond convenience, it extends the shelf life of food and medicines, protects electronics, and plays an important role in health care delivery.
11. Interstate Highways – 44,000 miles of U.S. highway allowing goods distribution and personal access.
12. Space Exploration – Going to outer space vastly expanded humanity's horizons and introduced 60,000 new products on Earth.
13. Internet – A global communications and information system of unparalleled access.
14. Imaging Technologies – Revolutionized medical diagnostics.
15. Household Appliances – Eliminated strenuous, laborious tasks, especially for women.
16. Health Technologies – Mass production of antibiotics and artificial implants led to vast health improvements.
17. Petroleum and Gas Technologies – The fuels that energized the 20th century.

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IN THE NEWS

J. Thomas Roth was published in the *Pittsburgh Post-Gazette* on December 10, 1999. In his rebuttal to an editorial piece entitled "Ergonomic Is Economic: OSHA Rules Can Help Improve the Workplace," Roth corrects the editor's erroneous definition of *ergonomics* (cited as "adapting worker to work space") and lists the beneficial effects of ergonomics. ☒

IN THE TRADES

Alan Hedge was featured in an article entitled "Ergonomic Software Increases Worker Productivity" which appeared in the November 1999 issue of *IIE Solutions*. The article details Hedge's study on the effects of an off-the-shelf ergonomics risk management software program that reminded users to take "micro-breaks," stretch, and maintain good posture. The 10-week study conducted on 21 workers at a New York insurance company revealed that such ergonomic software not only aided in preventing injury but also increased productivity.

Anthony D. Andre was featured in a live chat session on WebMD on October 25, 1999, concerning the prevention of workplace injuries. Andre answered questions relating to seating posture, lighting, product recommendations, and resources.

Julie Jacko and **Gregg Vanderheiden** were featured in "Better Designs for All People," which appeared in the November 1999 issue of *IIE Solutions*. The article focused on research and developments in universal access applications. Vanderheiden designed an accessible cell phone that can be used by people with hearing impairments, low-vision problems, or even physical disabilities. Jacko developed computer software with special magnification features that enable users to manipulate the number of items that appear on the screen. ☒

News (continued from page 3)

18. Laser and Fiber Optics – Applications are wide and varied, including most simultaneous worldwide communications, non-invasive surgery, and point-of-sales scanners.
19. Nuclear Technologies – From splitting the atom, we gained a new source of electric power.
20. High Performance Materials – Higher quality, lighter, stronger, and more adaptable.

For more information visit the *Greatest Achievements of the 20th Century* Web site at <http://www.greatachievements.org>. ☒

PEOPLE

Bill Johnson has been promoted from vice president of information technology to chief technology officer at Galaxy Scientific Corporation. Johnson may be reached at 2130 Lavista Executive Park, Tucker, GA 30084-5421; 770/491-1100, fax 770/491-0739; dr.billj@galaxyscientific.com.

Sehchang Hah is now with the Federal Aviation Administration. He works at William J. Hughes Technical Center in New Jersey as an engineering research psychologist. Hah may be reached at DOT/FAA, ACT-530, Bldg. 28, Atlantic City International Airport, NJ 08405; 609/485-5809; sehchang.hah@tc.faa.gov.

Eric Grose, formerly with Sandia National Labs, is now director of usability at Golfport, Inc. He can be reached at 13155 Noel Rd., Suite 300, Dallas, TX 75240; 972/628-7037; ericg@golfport.com. ☒

SHORT COURSES

Occupational Health and Safety at the Margins: Exploring Reasonable Accommodation in the Workplace (April 25, 2000). Midwest Center for Occupational Health and Safety, University of Minnesota, 640 Jackson St., St. Paul, MN 55101-2502; 651/221-3992, fax 651/292-4773; www.umn.edu/mcohs.

Principles of Ergonomics (April 17–19, 2000). OSHA Training Institute, Eastern Michigan University, 2000 Huron River Dr., Suite 101, Ypsilanti, MI 48197; 734/487-2259, fax 734/481-0509; <http://www.emuosh.org/>.

Ergonomics and Packaging (May 8–10, 2000). University of Wisconsin-Madison, Department of Engineering Professional Development, 432 North Lake St., Madison, WI 53706; 800/462-0876, fax 608/263-3160; custserv@engr.wisc.edu, <http://epdweb.engr.wisc.edu>. ☒

CALL FOR PAPERS

SAE World Congress

The 2001 SAE World Congress will be held March 5–8, 2001, in Detroit, Michigan. Among the topics of interest are passenger protection and safety, accident reconstruction, human factors, in-vehicle networks, driver comfort and convenience, and regulatory/policy/labeling. Abstracts are due *June 1, 2000*; email submissions are strongly encouraged. Contact Patti Kreh, Society of Automotive Engineers, 755 W. Big Beaver Rd., Suite 1600, Troy, MI 48084-4096; 724/776-4841, fax 248/273-2494; pkreh@sae.org, <http://www.sae.org>. ☒

IEA 2000/HFES 2000 Congress (continued from page 1)

include round-trip airfare, airport transportation, deluxe hotel accommodations, meal credits, amenities, and taxes and gratuities.

Travel and Accommodations

The beautiful San Diego Marriott Hotel and Marina, our headquarters for the Congress, offers stunning views, luxurious guest rooms, and numerous amenities, including a pool, jacuzzi, and health spa. A limited number of rooms are available, so book early. (You can reserve online at <http://iea2000.hfes.org>, "Housing Information.") Hotel rooms are also available at the Clarion and Hyatt Regency Hotels. Discounted hotel rates apply three days before and three days after the Congress. The deadline for reserving rooms at the special rates is July 1, 2000.

San Diego's Lindbergh Field serves all major airlines. Delta Airlines and American Airlines have been named as official carriers for the IEA 2000/HFES 2000 Congress. Both airlines are providing 5% off any Super Saver fare or 10% off any regular fare to San Diego from within the United States and Canada. To make your discounted reservations, please contact Marjorie at Nationwide Travel at 800/486-2846 or 714/847-1788 from 8:30 a.m. to 5:00 p.m., Monday through Friday, Pacific time.

Hertz is the official rental car company for the Congress. To reserve a car, contact Hertz at 800/654-2240 (inside the United States) and refer to meeting number 022J0055. Outside the U.S., please call 405/749-4434 or a Hertz rental office in your country.

Congress Registration

There are three ways to register: via the iea2000.hfes.org Web site, by mail, or by fax. The early registration deadline has been changed to June 21, and if you send payment by June 16, we will mail your badge and event tickets so you can avoid long waits in line at the registration desk when the Congress opens.

Spouses and guests of Congress registrants may attend one or two technical sessions at no charge and may accompany the registrant to social events (separate fees may apply in some cases).

All one-day and full-week Congress registrants will receive the proceedings on CD-ROM and may purchase the printed proceedings when registering. Books can be ready for you at the Congress or shipped to you afterwards. Be sure to order the books by August 4 to take advantage of special Congress pricing.

You can also order special T-shirts, polo shirts, or sweatshirts with the full-color Congress logo embroidered on the front. See the order form in the Registration Packet.

Placement Service

The year-round HFES Placement Service will be available for applicants and employers Monday, July 31, through Thursday, August 3, from 8:00 a.m. to 5:00 p.m. To post your résumé free of charge, visit the Placement Service at <http://hfes.org>. If you are an employer seeking candidates, you can place a job listing with the Placement Service by contacting HFES at 310/394-1811 or hfesps@aol.com.

San Diego History and Family Activities

San Diego is the birthplace of California. Portuguese explorer Juan Rodriguez Cabrillo landed in what is now San Diego Bay

and claimed the area for Spain on September 28, 1542. Cabrillo National Monument commemorates Cabrillo's arrival and provides spectacular views of San Diego's harbor and coastline.

San Diego enjoys beautiful weather year round, with an average daily temperature of 70.5° Fahrenheit (21.4° Celsius). A marked feature of the climate is the wide variation in temperature within short distances due to the topography of the land. Evenings are almost always cool, even in the summer, so be sure to bring a jacket or a sweater; days are frequently warm. A few restaurants require coats and ties for gentleman, but most welcome casual attire. Recommended dress for the Congress is business casual.

San Diego offers a vast array of sites, events, and activities for the entire family. In addition to the museums of Balboa Park, Sea World, San Diego Zoo and San Diego Wild Animal Park, and nearby LegoLand and Disneyland, visitors can take advantage of activities such as bird-watching, camping, golf, hiking, fishing, swimming, surfing, and diving.

Summer activities include San Diego Flash soccer games, San Diego Padres baseball games, free music concerts throughout the week in San Diego and surrounding communities, the San Diego Symphony Summer Pops, Summer Festival Pops Concerts presented by the San Diego Chamber Orchestra, Del Mar Horse Racing, and the 2000 Acura Tennis Classic (July 29–August 6). For more information about San Diego events and activities, visit the San Diego Visitor and Convention Bureau on the Web at <http://www.sandiego.org>.

The IEA 2000/HFES 2000 Congress organizers extend a warm welcome and look forward to seeing you in San Diego this summer. ☉

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.

★ **Facility Forum 2000**, April 3–5, 2000, Atlanta, GA. Dara Mansur, % WPC Expositions, 84 Park Ave., Flemington, NJ 08822; 908/788-0343, ext. 154, fax 908/788-9381; <http://www.facilityforum.com>.

★ **Ergonomics Society 2000 Annual Conference**, April 4–6, 2000, Grantham, Lincolnshire, UK. Annual Conference Programme Secretary, Ergonomics Society, Devonshire House, Devonshire Sq., Loughborough, Leics LE11 3DW, UK; +44 1509 234904, fax +44 1509 234904; ergosoc@ergonomics.org.uk.

★ **Advances in Aviation Safety Conference and Exposition**, April 11–13, 2000, Daytona Beach, FL. Federal Aviation Association, Dee Tripp, 400 Commonwealth Dr., Warrendale, PA 15096-0001; 724/772-8539, fax 724/776-5760; tripp@sae.org, <http://www.sae.org>.

★ **International Color Association 9th Quadrennial Congress**, June 24–29, 2000, Rochester, New York. ISCC, 11491 Sunset Hills Rd., Reston, VA 22090; 703/318-0263, fax 703/318-0514; iscc@compuserve.com, <http://www.iscc.org>.

IEA 2000/HFES 2000, July 30–August 4, 2000, San Diego, CA. Human Factors and Ergonomics Society, P.O. Box 1369, Santa Monica, CA 90406-1369; 310/394-1811, fax 310/394-2410; hfes@compuserve.com, <http://iea2000.hfes.org>.

★ *new listing.*

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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.

FLASH!

**IEA 2000/HFES 2000 Congress
Dates to Remember:**

Reserve your hotel rooms now!

June 16

**Register to receive badges and
tickets by mail in advance**

**Reserve embroidered logo items
for delivery at the Congress**

June 21

**Early registration deadline (fees
go up \$50 after this date)**

August 4

**Last day to order printed pro-
ceedings at Congress prices**



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