



INDIAN
SOCIETY OF
ERGONOMICS

ISE Newsletter

Quarterly newsletter of the
INDIAN SOCIETY OF ERGONOMICS (ISE)

Vol. 7

April - June 2003

No. 2



Editorial Board Members

Dr. Asis Goswami, Sri N. Sadhu, Dr. A. K. Ganguli,
Sri K. N. Sen and Sri D. Ghosh Thakur

CONTENTS:

- * Welcome new members
- * ISE meeting communications
- * First HPC Memorial Oration
- * Announcement – HWWE 2003
- * New initiatives
- * Forthcoming Conferences
- * Books
- * News

Forthcoming National events

-   To be held at the National Institute of Industrial Engineering (NITIE), Vihar Lake, Powai, Mumbai. Contact: Dr. A.De, Mail: amitabhade84@yahoo.co.in

Forthcoming International events

-  2003 IEA conference "Ergonomics in the Digital Age" to be held in Seoul, South Korea.
Visit <http://www.iea2003.org/>
-  XXVII International Symposium – ISSA – Construction Section to be held in Lisbon Portugal during 22-2 October 2003
Visit: <http://www.idict.gov.pt/aiss2003>
-  1ST International "Health and Safety in Transport" to be held in Paris, France
email: laa@biomedicale.univ-paris5.fr
-  Silver Jubilee Congress of Indian Association of Sports Medicine to be held at Amritsar in Dec. 2003.

More conference details inside

You may send your communications to:

Dr. A. Goswami
Block no. 350/2,
Type – D, Sector 13,
Gandhinagar 382016,
Gujarat.
Email: krisasis@ad.growthnet.net

Dr. A. K. Ganguli
Manager
Occupational Health Service
Bharat Heavy Electricals Ltd.
Tiruchirappalli – 620 014 (TN)
Email: akg@bheltry.co.in

Mr. K. N. Sen (Jt. Sec.)
C/o Larsen & Toubro Limited
ECC Construction Group,
Park Plaza,
71, Park Street,
Calcutta – 700 016
Email: isoe_hq@yahoo.com
knsen@Intecc.com

OR
Sri Debdoot Ghosh Thakur

Email: debthakur@hotmail.com

* **From the Editor**

In this issue of the newsletter we have made an attempt to provide recent news items in an elaborate form. It is significant that a number of new initiatives are being taken by the ISE members to create wide spread awareness about the subject. ISE wishes to welcome their efforts and support them in all their endeavours.

In the last issue we had invited members to provide brief write-ups on the activities of their institutions in the field of ergonomics, with the idea of focussing on one ergonomics research center/ academic institute in India in each issue. The purpose is to bring awareness of each other's activity and possible interactions to enlarge the knowledge base. Therefore, readers are requested to send a brief on their institute and activities with one or two photographs (high resolutions). The size of the article may be limited to 350 words.

* **Welcome new members!**

ISE Newsletter welcomes the following new Life Members:

Ms. Era Poddar

Ergonomics & Work Physiology Laboratory
National Institute of Occupational Health (NIOH)
Meghaninagar, Ahmedabad 380 016

Mr. Bhaskar Pramanik

Glaxo SmithKline Pharmaceuticals Limited,
INDIA

* **Communication of ISE Executive Committee meetings**

EXECUTIVE COMMITTEE MEETING HELD ON March 29, 2003

The 2nd Meeting of the Executive Committee of the Indian Society of Ergonomics (ISE) for the year 2003 was held at Ergonomics Laboratory, Dept. of Physiology, University College of Science & Technology, on March 29, 2003

It was decided that Mr. Kaj Elgstrand (from NIWL Sweden) would be requested to deliver the HPC Memorial Oration. The venue would be the auditorium of the Central Hospital, South Eastern Railway, Garden Reach, Kolkata. The programme would be coordinated by Sri K. N. Sen and Dr. K. B. Saha.

The letter received from Prof A De (NITIE) regarding HWWE 2003 Conference, was discussed. HWWE 2003 will be jointly organized by ISE and NITIE. This was accepted in principle, and it was suggested that the modalities may be jointly worked out (by Profs. G G Ray and A. De).

EXECUTIVE COMMITTEE MEETING HELD ON June 7 2003

The 3rd Meeting of the Executive Committee of the Indian Society of Ergonomics (ISE) for the year 2003 was held at Dept. of Physiology, Presidency College, 46/1, College Street, Kolkata 700 073

Dr. C K Pradhan introduced Sri Subrata Roy, Partner of our Auditors, M/s Roy Ghosh & Associates who was welcomed by all members.

The formal letter to NITIE regarding HWWE'2003 was read out, and approved.

It was decided that agenda of future meetings would be circulated by email to promote virtual discussion of the same to get a wider input of suggestions and comments.

It was decided that the newsletter sub-committee would be advised to publish news of various research opportunities in the ISE Newsletter so as to aid and encourage younger generations in pursuing research projects in Ergonomics.

Conveners of Sub-committees are requested to report their activities for publication in the ISE Newsletter.

Sri D Sen and Dr. S Ganguli were entrusted with the task of preparing a list of students who have completed Post-Graduation Ergonomics and Work Physiology from Calcutta University.

* HPC Memorial Oration

First Dr. Haripada Chattopadhyay Memorial Oration

Dr. Haripada Chattopadhyay, Professor of Physiology at Presidency College, Kolkata, was the founder president of the ISE. The first HPC Memorial Oration was delivered by Mr. Kaj Elgstrand, Head, International Secretariat, National Institute for Working Life, Sweden on April 4th, 2003 at the auditorium of the Central Hospital, South Eastern Railway, Garden Reach, Kolkata. Mr. Elgstrand spoke on **“Manual work and the process of industrialization”**.



Dr. Kalyan Ghosh, Medical Director, Central Hospital, South Eastern Railway, welcomed the gathering and Dr. Asit Ranjan Guharoy, Past Vice-President, and ISE Executive Committee delivered the key-note address. Prof. Dr. Sachchidananda Banerjee, ISE President addressed the gathering, following which Mr. Kaj Elgstrand, delivered the Memorial Oration. Mr K. N. Sen, ISE Asst. Secretary ISE and Regional Safety Coordinator of Larsen & Toubro Limited, Kolkata summed up and proposed a vote of thanks. The programme was coordinated by Dr. Kalyan Brata Saha, ISE Life Member and Dy. Chief Medical Director, South Eastern Railway, and compered by Dr. Samapika Chatterjee, of the South Eastern Railway Hospital.

Dr. Sachchidananda Banerjee inaugurates by lighting the lamp - Dr. Samapika Chatterjee assists. Dr. Kalyan Ghosh is on the right.



The Doctor's Club, South Eastern Railway had actively supported the programme and it was well attended by their members as well other staff of the SER Hospital, and representatives from organisations such as L&T, BPCL, CII (Delhi), and Haldia Dock Complex.

On the dais: Dr. A R Guharay and Mr. Kaj Elgstrand
(Photos by Mr. Dilip Ghosh)

* **Announcement**

The National Institute of Industrial Engineering (**NITIE**), Vihar Lake, Powai, **Mumbai** has kindly consented to host HWWE-2003, the National Conference of the Indian Society of Ergonomics on **11th and 12th December 2003**. For further details, contact: Dr. A.De at NITIE.

eMail: ergocore@nitie.edu

* **New Initiatives**

A project based on the “**Safe Community**” concept (promoted by NIWL Sweden and WHO Geneva) would be implemented in the New Garia Co-operative Society, Kolkata. A core team was formed with the Prof. B. N. Lahiri, Sri D Sen, Dr. S Ganguli and Sri K. N. Sen as members to start the initial work. Sri D Sen would be the coordinator,

A pilot study on the concept with epidemiological inputs (thro’ survey) would be conducted, and the report would be submitted to the Scientific Committee. Following this, full-fledged work to promote the concept in the selected communities would be undertaken.

* **Discussion: Code of Ethics**

The questions (see previous issue for details):

(1) Must there be ethical guidelines for the ISE (and its members)? (2) If so, why? (3) Can the above points be adapted to our needs? (4) What alterations (if any) are needed to suit our specialized needs?

- 1) Ethical guideline is a must, because we are human beings and prone to make errors. The degree of error can be under control if a guideline is there. I hope that as scientists you have observed how difficult it is to operate any sophisticated equipment without an operation manual. Human behaviour is extremely complex and some moral guideline is always required at least for the beginners.
- 2) It should be remembered that ethical guideline is not a rule. It is only a boundary for good conduct. It does not insist that every one must follow it. Most of the people think that some one else is burning, it’s not me, so why to bother. They forget that we are approaching towards a knowledge driven society where strict physical boundaries will not exist. Can we believe that prevention is better than cure?

- Asis Goswami

* **Forthcoming conferences:**

The 1st International Meeting of Science and Technology of Design, Senses and Sensibility – Linking Tradition to Innovation Through Design, is going to be held on 25-26 September 2003 at the IADE – Visual Arts, Design and Marketing Institute in Lisbon, Portugal.

The organizing committee is calling for papers in theoretical, development and practical implementation in all areas involving design. Please see the information in the official site: <http://www.iade.pt/sst/>. All papers will be included in conference proceedings – made available to delegates attending the conference.

Silver Jubilee Congress of Indian Association of Sports Medicine Congress : December 3 – 7, 2003 at Amritsar. Final information brochure has been placed in the website <http://www.sportsphysiotherapyindia.com/>. Two pre-congress courses will be held : FIMS Team Physician Development Course and Sports Rehabilitation Course. Interested persons may contact Prof. Jaspal Singh Sandhu, Organizing Secretary at Department of Sports Medicine & Physiotherapy, Guru Nanak Dev University, Amritsar – 143 005, Punjab – India. Contact Nos.: +91 183 258802 – 9 / 3338, 3340, 3502, 3503, 3504 (Ext.) Fax: +91 183 258820 / 19 Email: jssandhu2000@yahoo.com

The 7th International Scientific Conference on Work with Computing Systems, WWCS 2004 (formerly known as Work With Display Units, WWDU) will be held in Kuching, Sarawak, Malaysia, from 29 June to 2 July 2004. The theme of the conference is "Bridging Diversity at Work". Kuching (= cat) on the island of Borneo is an excellent escapade for your 2004 vacation.

Halimahtun Mohd Khalid, Ph.D., Professor and Director, Institute of Design and Ergonomics Application, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, MALAYSIA
Tel +6082 671790, Fax +6082 672094, email mkmahtun@idea.unimas.my

* Books

On 9:01 pm, January 3, 1961, at the Central Facilities Fire Department of the National Reactor Testing Station, Idaho, USA, An alarm sounded and fire crews rushed to the Stationary Low Power Reactor (SL-1). At this hour the only people there would have been working on the reactor, which had been shut down for two weeks.

At 4 pm that evening three technicians from the Army and Navy had began the task of reassembling the drive housing rods, which were disassembled by the previous shift. All men were experienced nuclear technicians. Following the military handbook for reassembly, the instructions read, "Assembly of the rod drive mechanism.... are the reverse of disassembly."

The instructions for disassembly state "Secure special tool CRT No. 1 on top of rack and raise rod not more than 4 inches. Secure C-clamp to rack at top of spring housing."

With the rod raised and the C clamp holding it in place, the technicians then had to assemble several pieces below the rod. The problem was that with the rod rose to what seemed to be 4 inches, (there were NO markings on the rod or otherwise to precisely tell the position) there didn't seem to be enough room to do the other work. So the rod was raised further.

After the work was completed, the C clamp was removed and they then needed to fit the rod back down in place. It looked as though this task could be more easily performed if the rod were lifted up slightly, straightened and then fit back down. Unfortunately, just like 40 other times in the previous two months, the rod was stuck. Two men then grabbed the rod and pulled up hard. Without any way to know how far the rod was pulled up, or how much rod was left, the technicians pulled the rod free of the housing. There were no controls to stop the upward motion of the rod.

Now exposed was a critical mass of uranium. The fissioning process started and in two seconds the core temperature had risen to 3,740 degrees F. Metal components vaporized and water expansion caused nozzles to explode with an estimated 35 atmospheres of pressure. Radiation fields measured over 1,000 rem/hour. All three technicians died and had to be buried in lead coffins.

Again, this terrible disaster was allowed to occur because human capabilities and limitations were not included in the design. The official report on the disaster specifies the cause as "manual withdrawal by one or more of the maintenance crew of the central control rod blade from the SL-1 core considerably beyond the limit specified in the maintenance procedure..."



For more information about these and other disaster analyses from an ergonomics/human factors perspective see **'Set Phasers on Stun' and Other True Tales of Design, Technology, and Human Error**, by Steven Casey. Published by Aegean Publishing Company. Santa Barbara, CA, USA. ISBN 0-9636178-7-7

* News

Ergonannies Warn Mobile Computing Ads Could Be a Bad Influence

Computer users in Australia are being advised that a recent wave of wireless networking ads could be a bad influence on the way consumers interact with their mobile computers. In an article in the Sydney Morning Herald, ergonomists, physiotherapists and even lawyers denounced the benefits of wireless networking, warning that the televised images associated with a recent push to go portable include images of people working while lounging with their computers – positions that could prove to be unhealthy.

“Advertising often portrays a device user in all sorts of compromising positions. This may encourage the workforce to adopt similar work habits,” said Sydney ergonomist Grant Richter. “Lounging is a key visual when selling these products to make work seem like a holiday and hence attract the buyer into thinking that a posture or habit is safe long-term, until they experience some form of pain or discomfort which they find difficult to relate to a cause that may be obvious to an ergonomist or physiotherapist,” Richter continued.

Anna Lee, national chairwoman of the Australian Physiotherapists Association, mimicked Richter’s concerns, also offering that a recent Intel Centrino ad airing in Australia showing a woman using a laptop computer in an airport lounge was “irresponsible.” Lee noted that in the Intel ad, the computer user has bad posture, displays poor use of the wrists and fingers in keying, uses only one hand to key, has glare on the monitor from nearby windows, and, overall, is encouraging prolonged use of computers while traveling, which may increase the risk of deep vein thrombosis (DVT).

Ergoweb’s Dr. Peter Budnick offers another perspective. “Granted, I’ve never seen the ads that spurred these comments, but I will point out that ergonomics is not really about telling people how they should sit. I think the bigger picture is that the wireless industry is developing technology that has the potential to increase human performance and comfort, which is the essence of ergonomics. If wireless technologies will give us more flexibility in when and where we conduct our work, I’d find that an improvement. Rather than point fingers at these innovative companies for supposedly encouraging bad habits, I’d rather appeal to them to further embrace ergonomics, which is a user-centered design approach that will improve the usability of their products. So, the story here is not about ‘ergonannies’ scolding people for bad work habits, it’s about working with innovative companies to ensure that the user remains a central design perspective – for their own benefit. Ergonomic designs elicit good work habits.”

[Click here to read the original article](#)

Ergonomics Today(TM) - April 16, 2003