



INDIAN
SOCIETY OF
ERGONOMICS

ISE Newsletter

Quarterly newsletter of the
INDIAN SOCIETY OF ERGONOMICS (ISE)

Web Site: <http://www.ergs.com/india/>

Vol. 5

October - December 2001

No. 4

2001
HWWE

Special Issue

**International Congress on Humanizing Work & Work Environment
Mumbai, 11 – 14 December 2001**

Editorial Board Members

Dr. Asis Goswami, Dr. A. K. Ganguli, Sri. K. N. Sen

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Forthcoming International events

- ☞ **CybErg'2002** The 3rd Intl Cyberspace Conference on Ergonomics. A virtual web-based conference <http://cyberg.wits.ac.za/CybErg'2002.htm>
- ☞ 3rd International Congress on Women, Work and Health
Stockholm, June 2-5, 2002
- ☞ XVI International Annual Occupational Ergonomics & Safety Conference 2002
- ☞ 2003 IEA conference "Ergonomics in the Digital Age" to be held in Seoul, South Korea. Visit <http://www.iea2003.org/>

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* From the Editor

The International congress was held at IIT, Mumbai and large number of ergonomists from India and abroad participated actively. It was thought appropriate to bring out a special issue to cover the news of the Congress.

We have not received any contributions on the theme "Specific problems in implementation of ergonomics" for the next issue. Members and interested ergonomics practitioners are requested to contribute their news and activities.

- Asis Goswami

* The HWWE'2001 congress

An International Congress on Humanizing Work and Work Environment (**HWWE'2001**) was held in Mumbai between 11th to 14th December 2001, aimed at developing a common platform for exchange of ideas concerning improvement in work and work environment and alleviating the problems of health and safety of workers. The venue was the Industrial Design Centre of the Indian Institute of Technology – Bombay.

The congress was inaugurated by Prof.A. Misra, Director, IIT Bombay. Dr.P.K.Nag, Congress President, welcomed the gathering and Prof.G.G.Ray, Organising Secretary, introduced the theme and objective of the congress. Prof. Pat Scott as a IEA representative, presented views of IEA on IDDC with special reference to ergonomics in India and its implementation.



Mr.S.K.Saxena, Director general – Factory Advisory Service and Labour Inspectorate, Mumbai, Mr.V.U.Madne, Director, Industrial Safety and Health, Maharashtra, Ms.S.Udipi, Director, Dept. of PG Studies & Research in Home Science, SNTD Women's University, and Mr.A.Pande, Tata Infotech, Mumbai, also

spoke on the occasion. Prof. R.Hazra, Head, Industrial Design Centre, IIT Bombay, proposed a vote of thanks.

The inaugural session was followed by a theme lecture on Ergonomics for the developing countries by Prof. H. Shahnava, Lulea, Sweden.

Both the International Ergonomics Association (**IEA**) and the Indian Society of Ergonomics (**ISE**) were associated with the congress. The IEA sponsored an eminent ergonomist (Dr. Pat Scott) as its representative.

Collaborating Institutes & Organizations:

- Industrial Design Centre, Indian Institute of Technology Bombay, Mumbai, India.
- National institute of Occupational Health, Ahmedabad,
- Tata Infotech Limited, Mumbai
- Directorate General Factory Advice Service and Labour Institutes, Mumbai.
- Directorate Industrial Health & Safety, Maharashtra.
- National Institute of Industrial Engineering, Mumbai
- Defence Research and Development Organization, New Delhi.
- Bharat Heavy Electrical Limited, Tiruchirapalli
- Shrimati Nathibai Damodar Thackersey, Women's University, Mumbai.
- International Ergonomics Association
- Indian Society of Ergonomics,
- Sri Lanka Ergonomics Association.

Eighteen international delegates from fifteen countries and 257 national delegates participated in the Congress. Altogether 120 oral and 23 poster papers were presented. The main congress presentations were held in three parallel sessions and two parallel sessions were devoted to the workshops.

Thirteen **KEY NOTE ADDRESSES** were given by eminent persons on various aspects of the congress theme.

H.Luczak: An essay about the Theory-to-Practice relationship of Ergonomics.

A.Garg: Long-term effectiveness of "Zero-Lift Program" in seven nursing homes and one hospital.

M.Helander: Affective human factors design.

Prof. Holger Luczak



Pat Scott: *Ergonomics- The key to humanising the work environment and improving productivity in industrially developing countries.*

R.C.Panjwani: *Human factors in safety in road transportation of hazardous chemicals in India.*

V.U.Madne: *Industrial safety*

S.Kumar: *Humanizing work for injury control.*

S.K.Saxena: *Humanizing work and work environment in industry: role of DGFASLI*

J.Charytotowicz: *Safety problems in housing*

R.K.Joshi: *Indian letterforms: aesthetic tradition and digital technology*

H.N.Saiyed: *Impact of globalisation and transfer of technology on occupational health and safety.*



Dr.H.N.Saiyed, Director, NIOH, Ahmedabad delivering his keynote address

S.K.Chatterjee: *Retrospective and prospective review of ergonomics discipline.*

T.Mathew: *Humanizing work and work place in the knowledge society*

PANEL DISCUSSIONS were organised on **Agricultural Ergonomics** (chaired by Dr.L.P.Gite), **Women at Work** (chaired by Dr.M.A.Varghese), and **Fitness & Performance** (chaired by Dr. K. Sen Ray).

The closing session was held on December 14, 2001. Professor M K G Menon, Chairman, Boards of Governors, IIT, delivered the valedictory address.

During the Congress a cultural programme was organised to give the delegates a taste of contemporary dance based on Tagore's philosophy.

The Congress was sponsored by

- * All India Council of Technical Education
- * Indian Council of Medical Research
- * Reliance Industries Ltd.
- * Godrej Industries Ltd.
- * Hindustan Petroleum Corporation Ltd.
- * Dept. of Science and Technology
- * Bharat Petroleum Corporation Ltd.



Prof.M.G.K.Menon delivers the valedictory address. Prof G.G.Ray and Prof. A.Mishra look on.

Along with the congress an exhibition on different products were also organized from December 11 to 14, 2001.

* **Scientific Sessions**

Close to one hundred and seventy five abstracts were received from fifteen countries across the globe. 120 oral and 23 poster papers were presented. The initial fifteen sections proved to be inadequate to cater to the wide range of topics and had to be expanded to the following twenty two, plus a poster session.

- Work systems design
- Occupational workload in farming (I & II)
- Occupational health
- Design for the physically handicapped
- Cognitive ergonomics
- Human Computer Interaction (I & II)
- Musculo-skeletal disorders
- Accident and injury prevention
- Consumer ergonomics
- Habitual physical activity
- Education and training
- Occupational psychology

- Farm tools and machinery
- Manual materials handling
- Physiology of work
- Anthropometry and biomechanics
- Personal protective equipment
- Heat stress
- Occupational ergonomics
- Indoor environment
- Work improvement intervention (I & II)
- Tractor ergonomics (I & II)

A notable feature of the selection process was that priority was given to young scientists in each area, and some of them were also sponsored.

The main congress presentations were held in three parallel sessions and two parallel sessions were devoted to the workshops.



Lively interaction during the session on Manual Material Handling

A digital version of all the papers received was given to all the delegates, and a printed version of the complete proceedings will be made available later.

* **Report on Workshops**

During the congress, three workshops were conducted on areas of current interest. These were on

- ◆ Industrial Ergonomics,
- ◆ Human Computer Interaction, and
- ◆ Fitness

Industrial Ergonomics Workshop

Pre-congress workshop on **Industrial Ergonomics** was held on December 10 and 11, 2001. There were twenty five participants, representing different industries and academic / research organisations. The workshop was



conducted by Professor H. Shahnava, Lulea University, Sweden, Professor Pat Scott, Rhodes University, Grahamstown, South Africa, Professor Shrawan. Kumar, University of Alberta, Canada, and Professor S. P. Dutta, University of Windsor, Canada

HCI Workshop

Workshop on **Human Computer Interaction** was held on December 12, 2001 with twelve participants. It was conducted by Professor Martin Helander, Nanyang Technological University, Singapore.

Fitness Workshop

Workshop on **Fitness – Excellence in Performance** was held on December 12 and 13, 2001. It was organized by Dr. K. Sen Ray, Dr. A. Goswami, Dr. R. Iqbal and Mr. R. Desai. Purpose of this workshop was to spread the awareness on physical fitness and its relation with sports performance. Speakers for this workshop were Prof. Leif M. Hambraeus, Uppsala University, Sweden, Dr. Philip Ainslie, Research Institute for Sports and Exercise Sciences Liverpool, UK, Dr. Dilip Nadkarni, Dr. K. Sen Ray, SNDT Women's University and Dr. K.K. Olecsandr, Training Method Expert, Sports Authority of India.



Prof. Udipi speaks at the Fitness workshop. Seated (l to r): Dr. P. K. Nag and Dr. K. Sen Ray

Prof. Hambraeus spoke on "Supplements, Health and Performance" and included areas

like Optimal nutritional requirement, RDA and requirement relation, intake and performance, special nutritional problems in training, antioxidants. Dr. Ainslie gave a detailed account on "Measurement of energy expenditure in sports and occupational ergonomics". Dr. Nadkarni spoke on Sports Injury and rehabilitation. Dr. Sen Ray emphasized on the differences in the role of sports nutritionists and dietician and on session dependent nutritional requirement in athletes. Dr. Olecsandr spoke on "Training, over-training and de-training". He had described practical experiences and details on training plan preparation. The workshop had a panel discussion session co-ordinated by Dr. Kinjal Suratwala with experts Prof. Hambraeus, Dr. Olecsandr and Dr. A. Goswami. Attended by more than 70 persons (medical doctors, coaches, fitness professionals and students), the event was highly appreciated by all participants.

* **ISE meeting**

A meeting of the members of the Indian Society of Ergonomics present at the HWWE Congress was held on December 13, 2001 under the Chairpersonship of Dr P K Nag. Details will be published in the next issue of our newsletter.

* **Your Opinion**

This section invites opinion of the ISE members on selected topic of discussion.

The opinion of the members on the selected topic will be published in the next issue.

Present topic is "**Specific problems in implementation of ergonomics**".

For example,

- lack of cost-benefit analyses,
- problems of remedial ergonomics,
- inability to suggest local vendors for ergonomic tools or devices, no knowledge about similar implementation experience elsewhere, etc.
- any other specific problems you have encountered

Send your views for inclusion in the next issue.