



INDIAN
SOCIETY OF
ERGONOMICS

ISE Newsletter

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INDIAN SOCIETY OF ERGONOMICS (ISE)

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Editorial Board Members

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

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Forthcoming national events

- ☞ 14th Annual Conference of the Physiological Society of India will be held at: Dept. of Physiology, Shreerampore College, Hooghly November 15-16, 2002
[See details inside](#)

Forthcoming International events

- ☞ 2003 IEA conference "Ergonomics in the Digital Age" to be held in Seoul, South Korea.
Visit <http://www.iea2003.org/>

☞ SEAMEC 2003

19-22 May 2003, Kuching, Sarawak, Malaysia Visit: <http://www.unimas.my/seamec>

- ☞ 10th International Conference on Human-Computer Interaction and 2nd International Conference on Universal Access in Human-Computer Interaction, Crete, Greece, 2003
<http://hci2003.ics.forth.gr/index.asp>

- ☞ The 3rd International Cyberspace Conference on Ergonomics.
Visit: <http://cyberg.wits.ac.za/>

- ☞ 27th International Congress on Occupational Health ICOH 2003
Visit: <http://www.icoh2003.com.br>

- ☞ 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 [See details inside](#)

You may send your communications to:

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* **Job Opportunity**

Research Fellow for MHRD project entitled “Development of an Ergonomic tool box with reference to technology transfer in developing countries with special emphasis on women workers”

Qualification: Master Degree with 1st class with specialization in Ergonomics/Physiology.

Should be able to collect data in field situation, analyze and prepare reports.

Duration: Two years

Remuneration: Consolidated fee of Rs. 6,500/- per month.

Candidates should send their application to Registrar, NITIE, Vihar Lake, Mumbai – 400 087

* **Annual General Meeting**

The fifteenth Annual General Meeting of the Indian Society of Ergonomics (ISE) for the year 2001 was held at the Dept. of Physiology, Presidency College, 86/1 College Street, Kolkata – 700 073 on **Saturday, the 20th July 2002.**

The following Office Bearers were elected:

President: Prof Dr. Sachchidananda Banerjee, 23B Tarasankar Sarani, Kolkata 700 037

Vice Presidents:

Prof. S. K. Mukherjee, Vice Chancellor, Birla Institute of Technology, Mesra, Ranchi

Dr. P. K. Nag Dy. Director, National Institute of Occupational Health, Ahmedabad

General Secretary: Prof Dr. Gaur G. Ray, Industrial Design Centre, Indian Institute of Technology Bombay, Powai, Mumbai 400 076

Asst. Secretaries:

Sri Devashis Sen Associate Professor, Dept of Physiology Presidency College Kolkata

Sri K. N. Sen, Regional Safety Coordinator, Larsen & Toubro Limited, ECC Division, Park Plaza, 71, Park Street, Kolkata 700 016

Hony. Treasurer:

Dr. Chandan Kumar Pradhan, Sr. Research Officer, Regional Occupational Health Centre(E), Block DP Sector V, Salt Lake, Kolkata – 700 091

Members:

1) Dr A. R. Guharay, B 5/1 Iswar Chandra Nivas, 68/1, Bagmari Road, Kolkata – 700 054

2) Dr. B. N. Lahiri, Reader, Production Engg. Dept., Jadavpur University Kolkata

3) Sri Bimal Mukhopadhyaya, Officer-in Charge, Loss Prevention Association of India Limited, 16, Hare Street, Kolkata 700 001

4) Debduut Ghosh Thakur, 34, Phul Bagan Road, Kolkata 700 086

5) Sri Somnath Gangopadhyaya, Ergonomics Laboratory, University College of Science, 92, A. P. C. Road, Kolkata – 700 009

The President briefed the members about the background to the present elections. Last year, the Executive Council was formed during the AGM as per the amended constitution. Prior to that, the amendments were accepted by General Body and then were submitted to the Registrar of Societies for approval. In the meantime, AGM and election was conducted. However, some of our member felt that implementation of the amendments while formal approval of the Registrar of Societies was pending was not desirable. The Registrar of Societies suggested that the Annual Return of the society be submitted and opined that acceptance of amendments may be made effective after its formal acceptance. Hence, election of an Executive Committee for the functioning of the Society as per the old constitution had become necessary.

The annual report was submitted by the President and was accepted by the house.

Since the Hony. Treasurer was not available the Audited Statement was not tabled.

A sub-committee was formed with the following members to follow-up the submission of Annual Return to the Office of the Registrar of Societies.

Dr. Chandan Kumar Pradhan

Sri Bimal Mukhopadhyaya

Sri Debdut Ghosh Thakur

Smt Sudipa Chatterjee

The General Body empowered the subcommittee to take necessary steps to sort out the matter at the earliest.

It was decided that a communication will be sent to the bankers informing them of the formation of the new Executive Committee and authorizing the new Hony General Secretary and Hony Treasurer to do the transaction hereafter on behalf of the Society.

It was decided to continue with the same auditor with the same remuneration

The meeting ended with a vote of thanks to the Chair.

* **Your Opinion**

Ergonomics of e-Publishing

We have moved to the single column layout (from the earlier two column layout). This is because, in the case of electronic media, the benefit obtained by breaking down the text into columns is lost due to the additional problems created by scrolling up and down the pages at the end of each column. This both reduces reading time and eye fatigue.

We have received the following valuable opinion on this matter.

Date: July 24, 2002 6:44 PM

The Newsletter is very informative and gives quality inputs regarding Ergonomics. Though I am not an official recipient of the Newsletter, I would like to submit the following regarding 'Ergonomics of e-Publishing'.

Your concern regarding the additional problems created by scrolling up and down the pages at the end of each column which reduces reading time and eye fatigue is very well taken. This is the general difficulty while reading the material on screen. But I think single column layout gives more strain and movement to eyes than with two-column layout. Single column paragraphs are harder to read, especially for unskilled readers, because the lines are so long. After reading one line, the eye has to move back across the entire page to find the start of the next line. Columns with 20-25 characters long are also hard to read. Eye jumps back and forth too much and gets tired quickly. Columns with line lengths of 40 - 45 characters are easiest to read. This is the best length. Eye can return to the beginning of the next line easily, and it doesn't jump back and forth very much.

Prabhat Meshram

In this connection, it is interesting to note the following:

Line width is the distance between the left and right margins of a text column and is also called length of line. This typographic aspect requires much attention in design, since it affects both reading comfort and reading speed. Lines that are too short will result in frequent hyphenation. The reader also has to shift his view to the next line very often, making reading uncomfortable. Moreover, it is sometimes argued that text comprehension is disturbed when lines are frequently broken off to continue on the next line, because line endings might receive less attention than the beginning of lines (Hartley, 1978). Lines that are too long, on the other hand, make it difficult to find the next line and not start reading the one above or below the line that follows the one just read.

Apart from the way line width affects the application of justification, as mentioned earlier, another aspect of typography is to be considered when deciding upon line width, namely typesize. The more points per character, the less characters will fit in a line of a certain width. It is fundamental that a ratio of typesize to line width is chosen which results in a balanced appearance. When the properties of typesize and line width have to be applied to justified text, a badly chosen ratio would result in stretched words separated by large gaps.

In early research, line width was expressed in millimeters. Tinker and Paterson (1929), for example, used the Chapman-Cook Speed of Reading Test on 560 subjects and found 80 mm to be the optimal width for 10-point type in order to achieve the highest reading pace. Luckiesh and Moss (1941), who studied the effect of various line widths on readability by measuring rate of involuntary blinking of the eye, patterns of eye- movement and speed of reading, expressed their results of optimal line width in picas. The confusion that might result from using these different measures is avoided by expressing line width as the average number of words or characters that should fill one line. For the conventional typesizes (9 to 12 points) it has been concluded that, on the average, the optimal line width lies between 10 to 12 words per line. This amounts to a range of between 50 and 70 characters per line of text, also counting word spaces, to achieve the highest readability (Matis, 1996). It should be noted, however, that the aspect of typesize which is relevant for line width is character width, not height (Hartley, 1978).

Source: <http://www.plainlanguagenetwork.org/type/utbo340.htm>

* **e-rgonomics**

Web-based Ergonomics discussion group

A web based discussion group on ergonomics [Indian Ergonomics](#) has been formed. Any body interested in ergonomics can be a member of it. The forum will be used for sharing information absolutely for academic and research interest. The members can put forward their views, query or any information related to ergonomics. **To join**, send a mail to ind_ergonomics-owner@yahoogroups.com. For **further information** contact Mr.N.Sadhu sadhu@idc.iitb.ac.in.

* **Members' news**

Dr. Chandan Kumar Pradhan, Hony Treasurer of ISE, was invited to deliver a talk on "An Introduction to Ergonomics" in a seminar on Occupational Health organized jointly by the Rotary Club of Andul and Rotary Club of Belur on 28th September 2002 at the Hotel Hindustan International, which was well attended by members and guests of both the organizations.

Dr.A.K.Ganguli was invited by the Regional Passport Officer, Chennai, to deliver lectures to sensitize the staff of the Regional Passport Office, Chennai to computer ergonomics issues. The presentation was delivered to all the staff in two batches, and was followed by a very lively interaction session.

* **Forthcoming event details**

14th Annual Conference of the Physiological Society of India

will be held at: Dept. of Physiology, Shreerampore College, Hooghly between 15-16 November, 2002. Contact person Dr Ashima Das, Organising Secretary, Dept of Physiology, Shreerampore College, Shreerampore, Hooghly 712 201, email : sercol@cal2.vsnl.net.in

In the absence of conference brochure, you may send three copies of ABSTRACT and a Cheque/ Draft of Rs 600/- as registration fee. The Cheque/ Draft should be in the name of "14th Annual Conference of The Physiological Society of India, 2002".

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 escape for your 2004 vacation.

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