



# ISE Newsletter

Quarterly newsletter of the INDIAN SOCIETY OF ERGONOMICS (ISE)

Vol. 19

July – September 2015

No. 3

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- ICAR sponsored Short course on **Ergonomics Methodologies For Designing And Assessing Women Friendly Agriculture Tools And Technologies**, November 17 - 26, 2015, MPUAT, Udaipur
- **13<sup>th</sup> meeting of the ISE and HWWE 2015**, 7 - 9 December 2015, Mumbai

### Forthcoming International events:

- **Short Course - Productivity & Design of Work**, November 23 – 27, 2015, Online and at the University of Wollongong, Wollongong, NSW
- **Short Course - Health & Design of Work**, February 1 – 23, 2016, On-line and 2 day face to face workshops at La Trobe University on 22 & 23 February 2016, 215 Franklin Street, Melbourne, VIC
- **2016 Applied Ergonomics Conference**, March 21-24, 2016, Orlando, USA
- **International Society for Occupational Ergonomics and Safety (ISOES) XXVIII Annual International Conference**, June 9-10, 2016, Chicago, USA

ISE is online at : <http://ise.org.in/>

The Annual General Meeting (AGM) of the Indian Society of Ergonomics is scheduled to be held on the **8<sup>th</sup> December 2015 at IIT Bombay, Powai, Mumbai** at 6:15 pm. Formal announcement is expected shortly.

**\* Member Activities**

**National Training on Advanced Instrumentation in Ergonomics for Occupational Fitness and Capacity**

The National Institute of Occupational Health (NIOH) on the occasion of celebrating its 50th year of existence conducted a four-day intensive training on Advanced Instrumentation in Ergonomics for characterizing Occupational Fitness and Capacity during 02-05 June 2015.

The training programme consisted of lectures followed by demonstrations/ hands-on experience on various aspects of ergonomics instrumentation for utilization of human resources in ergonomics research. The topics covered were Introduction to Ergonomics, Anthropometrics & Human Strength, Design Ergonomics, Physical Ergonomics, Occupational Biomechanics, Subjective Ergonomics and Bio-informatics in Occupational Ergonomics Research.



Sixteen scientists from 10 states of India specializing in Family Resource Management, Home Science and Agriculture participated in the training programme.

The programme was inaugurated by Dr. (Mrs.) Jayanti Ravi, IAS, Labour Commissioner, Govt. of Gujarat. Dr. Sunil Kumar, Director-in-Charge, NIOH welcomed all the guests and the participants and stressed on the need of ergonomics instrumentation. Shri. J Majumder, Scientist B, NIOH and Training Coordinator emphasized on the need of propagating the principles of ergonomics.

Five experts namely Shri. J Majumder, Scientist B, NIOH, Dr. Subir Das, Principal Faculty (Ergonomics), National Institute of Design, Ahmedabad, Dr. HG Sadhu, Scientist F, NIOH, Dr. RR Tiwari, Scientist E, NIOH and Dr. LK Sharma, Scientist B, NIOH delivered lectures during the programme.



The demonstrations/hands on experience on various aspects of ergonomics instrumentation were conducted by Shri. J Majumder and his team from the Dept. of Occupational Ergonomics, NIOH Ahmedabad. The four-day programme ended with distribution of participation certificates to the participants by the Director-in-Charge, NIOH.



### Physiological and biochemical responses during incremental uphill load carriage

Sohini Paul, Debojyoti Bhattacharyya, Tirthankar Chatterjee, Madhu Sudan Pal, Deepti Majumdar, Som Nath Singh, Dhurjati Majumdar

International Journal of Industrial Ergonomics 50 (2015) 26-33

The present study aimed to examine the effect of carrying different magnitudes of load on the changes and relationships of salivary Immunoglobulin A (IgA) and cortisol concentrations and the physiological parameters. Twelve Indian soldiers performed an intense uphill treadmill walking at two speeds viz. 2.5 km h<sup>-1</sup> and 4 km h<sup>-1</sup> without any load and carrying 10.7 kg, 17 kg and 21.4 kg loads for 36 min. Salivary IgA concentration relative to total protein decreased significantly after each exercise session and cortisol concentration increased concomitantly with physiological variables e.g. heart rate (HR), oxygen consumption (VO<sub>2</sub>), minute ventilation (VE) and energy expenditure (EE). An inverse correlation ( $P < 0.05$ ) was observed between IgA with HR for all the conditions except when the participants walked at 4 km h<sup>-1</sup> carrying 17 kg and 21.4 kg load. The degree and type of physiological and biochemical responses may help in designing combat training, operations and developing preventive strategies of military personnel involving intense exercise.

### \* Report on IEA 2015 (Update)

Rajender Kumar of CCS Haryana Agricultural University also participated in the International Ergonomics Conference, IEA2015 at Melbourne, Australia from 9-14<sup>th</sup> August 2015 and presented the poster paper titled "Anthropometry and Agriculture Tools; Design Aspect: A Review".



(L to R) Rajender Kumar, V K Tiwari, K N Dewangan



ICAR sponsored Short course on

**ERGONOMICS METHODOLOGIES FOR DESIGNING AND ASSESSING  
WOMEN FRIENDLY AGRICULTURE TOOLS AND TECHNOLOGIES**

**November 17-26, 2015**

Maharana Pratap University of Agriculture and Technology, Udaipur (Rajasthan)

**Objective**

- To impart knowledge about ergonomics principles and related methodologies to design tools/technologies/work places suitable for agriculture with specific reference to women workers.
- To provide hands on practice to the participants in the techniques & methods used in designing and assessment of tools/technologies.

**Course Content**

The course will primarily focus on the following topics:

- Drudgery of women in agriculture and its management.
- Mechanization of agriculture: need, impact and constraints.
- Anthropometry and design issues in designing women friendly agricultural technologies
- Anthropometric measurements and strength parameters for designing tools and machinery.
- Ergonomics methodologies for assessment of physiological and biomechanical workload.
- Hands on practice to design simple tools and assessing impact of improved tools/ technologies on ergonomic parameters.

**Eligibility**

The course is meant for active researchers/teachers having at least 2 years research /teaching experience not below the rank of Assistant Professor and equivalent in SAUs/ICAR Institutes in the field of Home Science/Agricultural Engineering /Agricultural Extension/ or any other related discipline. A total of 25 candidates will be selected for this course as per guidelines of ICAR.

**Travel and Accommodation**

The participants will be paid for the journey, to and fro, as per entitlement and will be provided shared accommodation in the guest house of the University.

**How to apply**

The participants' application should be received online using CBP portal through <http://iasri.res.in/cbp> or under the link Capacity Building Program at <http://icar.org.in>.

A non-refundable registration fee Rs 50/- (Rupees fifty only) is to be paid.

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**Productivity & design of work:  
Understanding human capability & demands of work**

Summer sessions 16 Nov 2015 – 15 Jan 2016

For more information:  
[www.ergonomics.org.au](http://www.ergonomics.org.au)  
**REGISTER HERE (Click on Cvent): CVENT**  
**Registrations Close 6<sup>th</sup> November 2015**  
 Please direct enquiries to: [secretariat@ergonomics.org.au](mailto:secretariat@ergonomics.org.au)  
 (Responding Tuesday to Thursday)

[University of Wollongong Ergonomics Short Course](#)

**Health & design of work:  
How do we design work to prevent MSDs & improve health & wellbeing?**

Online learning with four interactive online sessions prior to workshop on 22 & 23 February 2016

For more information:  
[www.ergonomics.org.au](http://www.ergonomics.org.au)  
**Registrations Close 22<sup>nd</sup> January 2016**  
 Please direct enquiries to: [secretariat@ergonomics.org.au](mailto:secretariat@ergonomics.org.au)  
 (Responding Tuesday to Thursday)

[La Trobe University Ergonomics Short Course](#)

**\* Forthcoming Conferences**



**13<sup>th</sup> meeting of the ISE and HWWE 2015**  
**7 - 9 December, 2015, Mumbai, India**



The 13<sup>th</sup> annual meeting of the ISE and the HWWE 2015 conference is going to be held in December 2015 in the nation's economic capital city, Mumbai also known as the "City of Dreams". The conference will be jointly hosted by the Indian Institute of Technology Bombay (IITB) and the National Institute of Industrial Engineering (NITIE). Under the theme of "Caring for People", HWWE 2015 is expected to bring together over 500 delegates from India and overseas and showcase the latest in, research, careers, practice, and policy in the area of ergonomics. Collaborative institutes for HWWE 2015 include the PEC University of Technology Chandigarh, and the Nutrition Society of India (NSI), Mumbai Chapter, which is also going to organise their 9th annual meeting with a symposium on "Community Nutrition and Health: A Social Responsibility"

**Conference venue and dates:**

The programme will be held at the Victor Menezes Convention Centre at IIT Bombay.

<b>HWWE 2015</b>	<b>Dec 6, 2015</b>	Morning	Pre conference workshop
		Afternoon	Presentations for best research paper awards
	<b>Dec 7 – 9, 2015</b>		Main conference
<b>CN&amp;H</b>	Dec 7, 2015		Pre conference Work shop (Interpretation of Health Indicators)
	Dec 8 – 9, 2015		Symposium

**Program Schedule** now available on HWWE 2015 website.

Presented papers will be published in the Conference proceedings e-book. All abstracts will be published in the Book of Abstracts.

**Important deadlines**

Conference registration is open

For further details log on to [www.hwwe2015.org](http://www.hwwe2015.org) , or send email to the organizers at [hwwe2015@gmail.com](mailto:hwwe2015@gmail.com)



## 2016 Applied Ergonomics Conference in Orlando, FL, USA

The 19<sup>th</sup> Annual Applied Ergonomics Conference (AEC), presented by GOErgo, a worldwide resource dedicated solely to the support of the profession and individuals involved with improving workplace performance, quality, sustainability and employee availability is scheduled for March 21 - 24, 2016 at the Disney's Coronado Springs Resort, Orlando, FL, USA.

Presenters are practitioners sharing real-world experiences and practical solutions to common problems in industry. This conference provides comprehensive and broad-spectrum education for employees at all levels (managers to professionals to line-workers).

For additional information, please visit the Applied Ergonomics Conference website:  
[www.appliedergoconference.org](http://www.appliedergoconference.org)



## XXVIII<sup>TH</sup> Annual International Occupational Ergonomics and Safety Conference June 9-10, 2016 Chicago, Illinois, USA

The International Society for Occupational Ergonomics and Safety (ISOES) will be holding its XXVIII Annual International Conference on June 9-10, 2016 in Chicago, USA.

### Call for Contributed Papers

Individuals interested in presenting their research/case study can submit an abstract of no more than 350-words in English to: Dr. Anand Subramanian at [conference@isoes.info](mailto:conference@isoes.info) before March 4, 2016.

All abstracts submitted for publication in the Conference proceedings will be peer-reviewed by the International Program Advisory Committee.

Authors will be notified of acceptance by March 15, 2016.

Full papers or extended abstracts and conference registration will be due by April 15, 2016.

Papers for the conference will be published in the conference proceedings. Copies of the CD will be available to all conference participants.

Visit the International Society for Occupational Ergonomics and Safety Website at: <http://www.isoes.info/>