



ISE Newsletter

Quarterly newsletter of the INDIAN SOCIETY OF ERGONOMICS (ISE)

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Forthcoming National & International events:

- * [ESK-JES](#)
24th Korean-Japan Joint Symposium and International Conference on Human Factors and Ergonomics
Jeju Island, S. Korea
5-8 October 2022
- * [HWWE 2022](#)
Annual Conference of the Indian Society of Ergonomics,
Punjabi University, Patiala, Punjab
24-26 November 2022
- * [Joint International Conference](#)
Asian Conference on Ergonomics and Design (ACED) 2023, Humanizing Work and Work Environment (HWWE) 2023, and BRICSplus Human Factors & Ergonomics Conference (BRICSplus HFE) 2023,
NITIE, Mumbai
14-16 December 2023

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

For your security, ensure that you can view the padlock symbol  and <https://ise.org.in> on the web address before you enter



Welcome New members!

ISE Newsletter cordially welcomes the following new Life Members:



L-516 M Mani, Chennai

L-517 Murali Subramaniam, Chennai

HWWE 2022 Update



Humanizing Work and Work Environment – the Annual Conference of the Indian Society of Ergonomics

Punjab University, Patiala, Punjab

24-26 November 2022

Theme: Health Wellness and Ergonomics

<https://hwwe-2022.punjabuniversity.ac.in/>



ACED 2023 Launch

Mumbai has launched the International Joint Conferences – i) **Asian Conference on Ergonomics and Design (ACED) 2023**, ii) **Humanizing Work and Work Environment (HWWE) 2023**, and iii) **BRICSplus Human Factors & Ergonomics Conference (BRICSplus HFE) 2023** with the conference theme of '*Human-Centered Digitalization*'. **Director NITIE Professor Manoj Tiwari** opened the Banner of the Triennial ACED conference to mark the launch of the International Joint Conferences, which will be organized during 14th-16th December 2023 at NITIE Mumbai.



The online launch was attended by Professor Jose Orlando Gomes - President of the International Ergonomics Association (IEA), Dr. Anindya Ganguli -President of ACED, Dr. Frederick Tey - Vice President of ACED, Prof. Debkumar Chakrabarti, President - of Indian Society of Ergonomics (ISE), and academicians and researchers from Asian and BRICS countries.

NITIE professors Prof. Vivekanand Khanapuri, Dean SRIC, Prof. Rauf Iqbal, Dean Student Affairs, Prof. Vivek Khazode, Dean Planning & Coordination, and Prof. Utpal Chattopadhyay, Assoc Dean, Student Welfare & Hostel Management were part of the programme.

* Achievements

Prof. **Somnath Gangopadhyay** has been appointed the **Secretary of the International Commission on Occupational Health (ICOH) Scientific Committee** on *OH in Small Scale Enterprises and the Informal Sector* for the tenure 2022-2024. He will focus on the ICOH's priorities of action, including advancing proactive risk management, extending occupational health services to all workers and developing action-oriented toolkits, together with strengthening ICOH network activities.

Dr. (Mrs.) **Suman Singh**, Ex-Professor & Director Student Welfare, Family Resource Management at the Maharana Pratap University of Agriculture and Technology (MPUA&T), Udaipur has been appointed as **ICAR – Emeritus Professor** at MPUA&T.

Mr. **Gurdeep Singh's** project work was adjudged as 'Highly Commended Innovative Work' in the 'The Innovation Award' category by the Chartered Institute of Ergonomics and Human Factors (CIEHF), United Kingdom.

'The Innovation Award' is given to any individual or group who has made, via a single project or programme of work, a significant and innovative contribution to ergonomics and human factors, in relation to a product, system or facility. Such a project or work must be demonstrably high quality and impact. Mr. Gurdeep Singh is currently pursuing his doctoral research at the Department of Design, Indian Institute of Technology Guwahati, Guwahati, India, under the guidance of Prof. Sougata Karmakar, Professor and Head, Department of Design, IIT Guwahati.



Gurdeep's research pertains to ergonomics and human factors interventions in the design and development of devices/ instruments to ensure safety and reduce the drudgery of the shop-floor workers in Fast Moving Consumer Goods (FMCG) industries of India. This work is a part of his ongoing Ph.D. research project entitled 'Ergonomic design improvements in shop-floor of FMCG manufacturing industries in India.'

Dr **L P Singh**, Associate Professor at NIT Jalandhar organized a one-week GIAN Programme on **Emerging Trends and Contemporary Tools for Research and Practice in Ergonomics and Safety** from March 11th-15th, 2022. Dr. **Rammohan V Maikala** was the international expert speaker for the programme. Dr Singh also delivered lectures on, Physiological Responses (HRV), the Strain Index for Upper Extremity, and Occupational Noise Assessment. The programme was inaugurated by Prof. B K Kanaujia, Director NIT Jalandhar. Academicians and researchers across the country participated in the course.



**EMERGING TRENDS AND CONTEMPORARY TOOLS FOR
RESEARCH AND PRACTICE IN ERGONOMICS AND SAFETY**
One week GIAN Programme
March 11th-15th 2022



Dr. L P Singh
Associate Professor



Dr. Rammohan Maikala
National Safety Council, IL, USA



Dr. Kapil Kumar
Assistant Professor

Department of Industrial and Production Engineering
Dr. B R Ambedkar National Institute of Technology
Jalandhar (Punjab)-144027, India

The contents of the course included; Neuroergonomics; Near-infrared spectroscopy and Applications in Ergonomics; Energy Expenditure Models, Heart Rate and Heart Rate Variability; Exoskeletons – History, Safety, and Ergonomics; Virtual/Augmented Reality – Ergonomics and Human Factors; Hospital Ergonomics; Office Ergonomics and Work from Home; Total Worker Health; Environmental Ergonomics - Light; Noise, Heat and Cold Stress, Whole-body vibration; and Introduction to Job Evaluation Methods – Work posture analysis using OWAS, RULA, REBA tools.

Dr. **Reena Valecha** was invited as an Expert Speaker in the 2nd Edition - CII Goa Conference on Industrial Safety which was attended by 200+ participants from industry. She shared her insights on “**Excellence in Employee Health & Safety at the Workplace**” on the topic 'Promoting Holistic Health & Wellbeing' with emphasis on importance of Ergonomics in industry.



Mr. Mauvin Godinho Hon'ble Minister Industries Trade and Commerce was the Chief Guest at the event. Mr. Sanjit Rodrigues IAS Secretary Factories and Boilers, Govt of Goa, Mr. Mahesh Patil, Chairman GSPCB, and Mr. Nitin Raiker Director Fire and Emergency Services, Govt of Goa addressed the gathering.



Dr. **Reena Valecha** also conducted an awareness session on **Ergonomic Work Practices** for the nursing staff of Sahyadri & Jahangir Hospital, Pune (above), and a Training program for senior management office staff for an MNC in Bangalore on **Office Ergonomics through Participatory Approach** (below).



Dr. **D. Ratna Kumari**, Dean, Faculty of Community Science, Professor Jayashankar Telangana state agricultural University (PJTSAU), Hyderabad and Dr. **V. Vijaya Lakshmi**, Professor and University Head, Dept of Resource management and Consumer Science, College of Community Science, PJTSAU have submitted a paper on **“The ergonomics edge for small enterprises - Case studies from the state of Telangana, India”** in the International conference on Applied Human factors and ergonomics (AHFE) 2022. The paper has been accepted and Dr.V.Vijaya Lakshmi will be presenting paper in the conference to be held in July 2022 at New York, USA.

A three- day residential training programme on **“Instrumentation in Ergonomics and Protocol Development”** was conducted by Dr. **Jerrish Jose** and Dr **Jena Jose**, Jaj Ergo Physio Center at Bangalore between 20th-22nd June, 2022. Staff and students of the Department of Resource Management and Consumer Science participated in the training programme.





The learnings of the programme are Components of Ergonomics, Applications of Ergonomics in different occupations. Risk Analysis and Assessment for a Neutralized Work Situation (RAANS), different Ergo-assessment tools like Quick Exposure Checklist (QEC), Borg Scale and Borg CR, Fit Must, EMG were demonstrated. Trainees also learnt to perform Ergonomic review and using passive surveillance during assessment. All the participants received certificates from the Jaj Ergo Physio Center.



Ergonomic Light Weight Snow Boot has been developed by **D. Bhattacharyya** and the team at the Defence Institute of Physiology and Allied Sciences (DIPAS) for operations in severe cold and windy conditions at high/ extreme altitude and snow-clad regions.

The existing indigenous snow boot (RI Boot) is heavy weight (3.5 kg, size 8), lacks adequate thermal insulation in the foot bed, vamp and ankle areas; lacks a breathable inner lining, and has a poor grip on the snow-covered terrains due to a soft outer sole. Imported boots like SCARPA, LOWA and other brands address many of these problems, but these are heavy (weight > 3 kg size 8) and exorbitant in cost (> Rs.50,000 approx.).

The innovative DIPAS developed snow boot is based on ergonomic principles which will facilitate/enhance soldiers' performance, comfort and combat capabilities. The DIPAS boot has the following features-

Important Features	Potential Benefits
Ergonomically designed	Better fit, comfort, safety and usability
Light weight	Decreased energy expenditure, improved mobility and low fatigue
Ankle support Cuff quarter is attached to the shell with a flexible hinge	Providing support and strength to the ankle during power step.
Foot bed with midsole of rubber cloth, PU/EVA/PP sheet, strobel PE insole and PU insocks	Adequate thermal protection and advanced impact shock absorption
Inner lining of breathable fabric	Keeps the foot dry and prevents microbial infection
Outsole with Zic pattern and sand texture high cleats	Improved slip resistance over snow covered terrain
Zip at the medial aspect of boot	Quick wear and removal of the boot during emergency
Grooving at outsole	Crampon attachment for better mobility

Trials conducted at Khardung La (18,380 ft), Chang La (17,664 ft), and Siachen base camp (12,500 ft) Leh, Ladakh demonstrated thermal comfort in an average ambient temperature drop of - 15°C associated with an average temperature of +15°C inside the boot.



Design of the entire boot has been registered (No. 312511) and the design of outer shell of boot has already been granted (No. 315322-001). The product patent is also granted (No. 398166).

* IEA News

IEA/Tsinghua and IEA/Kingfar applications **date extended**

The International Ergonomics Association (IEA) has new agreements with Kingfar and Tsinghua this year, with increased funding, and are accepting additional award nominations for IEA/Kingfar STUDENTS (NOT ECRs) and IEA/Tsinghua candidates.

The **IEA/Kingfar Award** is given annually to early career professionals to promote and reward high-quality original research and applications on new and emerging HFE issues or issues **specifically related to industrially developing countries**, as well as to promote a career path in HFE.

Nominees can be from any country including both IDCs and developed countries. **The award amount is \$1,000 for each student winner.**

The **IEA/Tsinghua Award** for Collaborative Human Factors/Ergonomics Education is given annually to honor persons (e.g., **researchers, teachers**) who, through international and/or inter-regional collaboration, have made significant and outstanding contributions to the success of postgraduate educational programs that include human factors/ergonomics (HFE) courses or substantial HFE content in the curriculum. The intent of this award is to mobilize educators worldwide for HFE education. Up to four programs may be awarded. Each program may be represented by up to two nominees. The award consists of a monetary prize of \$4,000 per selected program.

Further details on these two awards, including the nomination criteria can be accessed here: <https://iea.cc/iea-kingfar-award/> for the IEA/Kingfar Awards and here: <https://iea.cc/iea-tsinghua-award/> for the IEA/Tsinghua Awards.

Applicants from ISE are requested to carefully study the eligibility criteria and the required support documents from the IEA website (as described above), and send the documents to the **ISE Awards and Nominations Committee** (indiansocietyergonomics@gamil.com) by **23 September 2022** for processing and forwarding.

*** Special virtual issue - Musculoskeletal disorders (MSDs) – Workplace Safety and Health**

Musculoskeletal disorders (MSDs) – Addressing the Unresolved Issue of Workplace Safety and Health

This virtual special issue invites current rigorous Musculoskeletal Disorder (MSD) research in any workplace environment with a significant focus on safety and health implications. Manuscripts should systematically address the multifactorial risks related to the worker, work, and work environments on MSDs.

Guest editors:

Ram Maikala, PhD, ASP;
Lisa Brooks, MSE, MS, CIE;
Emily Prentice, MPH, CPH, ATC; and
Paige DeBaylo, PhD

Special issue information:

It is a well-known fact that musculoskeletal disorders (MSDs) are a persistent and unresolved issue in the workplace. This is evidenced by the annual Injury Facts® of the National Safety Council (NSC), which consistently ranks MSDs as one of the leading causes of nonfatal injury or illness events involving days away from work. In addition, the World Health Organization reports that MSDs are the most common cause of disability, early retirement, and limitations to gainful employment. United Nations 2030 Agenda for Sustainable Development also emphasizes that one of the primary

goals for each country is to protect labor rights and promote safe and secure work environments for all workers. Furthermore, in 2016 the US Department of Labor's Occupational Safety and Health Administration highlighted the importance of including worker safety and health in the growing movement toward sustainability and corporate responsibility. To this effect, NSC is seeking to systematically address the multifactorial risks related to the worker, work, and work environments on MSDs.

This special issue from the Journal of Safety Research builds on this initiative and invites manuscripts on the following research and practice areas of MSDs in any workplace environment but with a significant focus on safety and health implications:

- Original research that explores new and innovative ways of tackling various issues of MSDs
- State-of-the-art reviews (e.g., systematic, scoping, and meta-analysis) on emergent theories of MSD mechanisms, pathophysiology, prevention methodologies, interventions, and technologies
- Impact of risk factors, risk markers, and causal factors of work, worker, and workplace
- Prevention through Design™ program findings, including return-on-investment studies
- Utility of predictive data analytics in workplace safety and injury reduction (e.g., workers' compensation datasets)
- Issues of disparities and inequities (e.g., migrant, under-represented populations)
- Regulatory compliance and policy challenges
- Applications of emergent technologies and intervention studies using emergent technologies (e.g., computer vision, artificial intelligence)
- Role of psychosocial risk factors and mental health in the workplace
- Impact of emerging infectious diseases (e.g., Covid) on musculoskeletal health
- Risk assessment and risk reduction methodologies, including epidemiological survey tools (e.g., development, validation, and reliability)
- Development, implementation, and evaluation of safety, health, and wellness programs (e.g., efficacy studies of industrial athlete programs)
- Safety culture maturity and safety climate studies in injury prevention, including measurement analysis
- Safety and health metrics (lagging, leading, and impact) on injury prevention and mitigation
- Worker health promotion and improve worker safety and health (e.g., Total Worker Health®)

For more information:

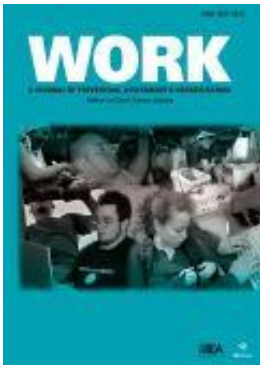
<https://www.sciencedirect.com/journal/journal-of-safety-research/about/call-for-papers#musculoskeletal-disorders-msds-addressing-the-unresolved-issue-of-workplace-safety-and-health>

Manuscript submission information:

All submissions must be original and may not be under review elsewhere. All manuscripts will be submitted via JSR's online submission system. Authors should indicate that the paper is submitted for consideration for publication in this special issue. When choosing Manuscript "Article Type" during the submission procedure, click "VSI: -Workplace MSDs", otherwise, your submission will be handled as a regular manuscript. For author guidelines, please refer to:

<https://www.elsevier.com/journals/journal-of-safety-research/0022-4375/guide-for-authors>

* Publications



Priya, D. Bhanu, and **Murali Subramaniyam**. "Fatigue due to smartphone use? Investigating research trends and methods for analysing fatigue caused by extensive smartphone usage: A review." *Work*, 2022, 72 (2), 637-650. DOI: 10.3233/WOR-205351

The easy accessibility of smartphones has led to a fivefold increase in their use. Increased usage of smartphones has led to smartphone addiction causing adverse effects such as musculoskeletal disorders, digital eye strain, loss of focus and attention. This study was undertaken to understand the effects of prolonged smartphone utilization and explore fatigue measurement techniques.

* Forthcoming Conferences

24th Korea-Japan Joint Symposium and International Conference on Human Factors and Ergonomics

Jeju Shinhwa World Landing Convention Center, Jeju Island, South Korea, 5th -8th October 2022

The 24th Korean-Japan Joint Symposium and International Conference on Human Factors and Ergonomics will be held at Jeju Island from 5th – 8th October 2022, while on-line participation is possible. The Ergonomic Society of Korea (ESK) and Japan Ergonomics Society (JES) welcome your contributions from academia, government, and industry presenting novel research findings in Human Factors and Ergonomics. Not only from ESK or JES but the members from ACED or IEA federated societies are also welcome.

Deadlines

12 Aug 2022 Presentation proposal (Abstract: 300 words in English)

26 Aug 2022 Camera-ready papers (A4 up to 4 pages in English)

8 Sep 2022 Early-bird registration of Participation

Registrations

Free for only on-line participation of the members of JES, ACED and IEA federated societies (i.e. **ISE members**)

Submissions

Presenters can submit as the format of Extended abstract only, Full paper, or Poster. All

presentation materials should be written in English. Please use the following template and submit in MS-WORD or PDF format. Poster allows any design but within the size of A0 (portrait).

for Abstract: <http://esk.or.kr/conference/template1.doc>

for Paper: <http://esk.or.kr/conference/template2.doc>

Presentation

Language: English

On-line or off-line oral presentation is around 15 minutes including discussion and Q&A. On-line presentation could be either live broadcast or pre-recorded video at the presenter's convenience.

Publications

Your camera-ready manuscript would be included in the proceedings of ESK 2022 Fall. Outstanding papers will be recommended for publication in Industrial Engineering & Management Systems (SCOPUS) or Journal of Ergonomic Society Korea (Google Scholar) special issues.

Contacts

For inquiries and submissions:

JES: Prof. Kentaro Kotani (Kansai University), kotani@kansai-u.ac.jp

ESK and others: Prof. Inseok Lee (Hankyong National University), lis@hknu.ac.kr

HWWE2022 will be held in **Punjabi University, Patiala, 24-26 November 2022**

Humanizing Work and Work Environment – the Annual Conference of the Indian Society of Ergonomics

Important Dates

Last date for Abstract Submission	Last date for Abstract Acceptance	Last date for Full Paper Submission	Last date for Early Bird Registration
31 July 2022 Date Extended : See website	31 August 2022	30 September 2022	30 September 2022

Link for abstract/paper submission: <https://easychair.org/conferences/?conf=hwwe2022>.

Conference website <https://hwwe-2022.punjabiuniversity.ac.in/>

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