



# ISE Newsletter

Quarterly newsletter of the INDIAN SOCIETY OF ERGONOMICS (ISE)

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## CONTENTS:

- \* **ISE Annual General Meeting 2020**
- \* **Welcome New Members**
- \* **Achievements**
- \* **Member Activities**
  - Webinar on "Work, Work Environment and Wellness - An ergonomic perspective"
  - National webinar on 'Ergonomics and Psychological Issues and coping during COVID-19 Pandemic'
  - Online Training on 'Ergonomics Methodologies For Designing And Assessing Women Friendly Agriculture Tools And Technologies'
  - Ergonomics Webinar on "Emerging Issues and Trends in Ergonomics & Human Factors Research: The New Normal"
- \* **Publication**
  - Human-Centered Agriculture: Ergonomics and Human Factors Applied
- \* **IEA Updates**
  - Principles and Guidelines for Human Factors/Ergonomics (HF/E) Design and Management of Work Systems
- \* **Forthcoming Conferences**

### Forthcoming National events:

#### HWWE 2020

Annual Conference of the Indian Society of Ergonomics,  
December 10-12, 2020,  
Boisar, Mumbai **Gone Digital !**

#### FEES REDUCED

### Forthcoming International events:

- \* **ACED-SEANES** Joint Conference  
December 2-4, 2020  
Bohol, Philippines
- \* **Ergonomics 2020**  
December 2-5, 2020  
Zagreb, Croatia
- \* **21<sup>st</sup> Triennial Congress of the International Ergonomics Association (IEA 2021)**  
June 13-18, 2021  
Vancouver, Canada **Gone Hybrid !**
- \* **AHFE 2021 International Conference**  
July 25-29, 2021  
New York, USA

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

## \* ISE Annual General Body Meeting

The Annual General Body meeting of the Indian Society of Ergonomics will be held on **Saturday, 5 December 2020 at 7:00 pm.**

Considering the priority of safeguarding the health and wellbeing of people in the ISE community, and to ensure compliance with the Bye-Laws of the Society, the Annual General Body Meeting (AGM) will be held **in Virtual mode**. Link to join the meeting, along with the agenda, annual report and audited accounts, **has been sent to all ISE members**.

*Please contact the Hony. General Secretary, quoting your membership number, if you have not received the AGM Notice.*

## \* Welcome New members!

ISE Newsletter welcomes the following new Life Members:



**L-493 Sameer Herkal, Chinchwad**

**L-494 Swetha Kodali, Hyderabad**

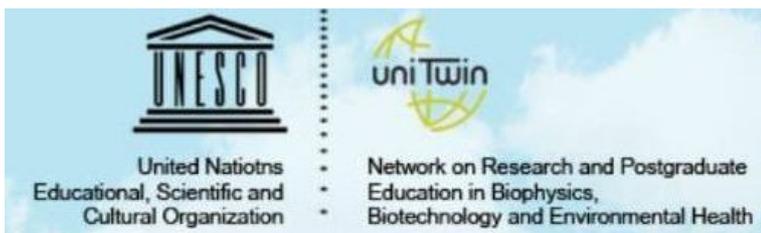
**L-495 E. Shirin Hima Bindu, Hyderabad**

**L-496 Abhimanyu Sharan, Bangalore**

**L-497 V Vijaya Lakshmi, Hyderabad**

**L-498 Titiksh V Varma, Ahmedabad**

## \* Achievements



**Prof. Kusal Das, BLDE University, Karnataka** has been appointed by UNESCO as the Dean of Environmental Health. The job description includes coordinating the Masters and Doctoral curriculum of 18 countries, including the UK and the USA. He succeeds Prof. Andrey Rubin of the Moscow State University, and will be the first Asian to hold this post.

**Congratulations!**



**The RoSPA Distinguished Service Award** for 2020 has been awarded to **Dr. Krishna Nirmlaya Sen**, Head of EHS at MMH SBG of Larsen & Toubro Limited, India in the “Inspiration Awards” category.

This “Distinguished Service Award” is presented to safety professionals who have made a long-term, sustained contribution to improving health and safety.

The RoSPA Health & Safety Awards is one of the most prestigious and recognized schemes in the world, with almost 2000 entries every year.

**Congratulations!**



**Prof. Somnath Gangopadhyay** has been awarded Chartered Status of the Chartered Institute of Ergonomics and Human Factors (CIEHF), UK.

**Congratulations!**

## **Member Activities**

### **Webinar on “Work, Work Environment and Wellness - An ergonomic perspective”**

With the pandemic clutching across all sectors of the population, today’s work and work environment has its shift. How best the work and work environment be focused towards wellness of the people was the concept behind this webinar on “**Work, Work Environment and Wellness - An ergonomic perspective**”, organized by the Department of Family Resource Management and Consumer Science, Community Science College and Research Institute, **Tamil Nadu Agricultural University, Madurai on 5<sup>th</sup> August 2020**. One hundred and sixty three participants including students, faculty, engineers, occupational therapist and designers from industry attended the programme. During the welcome address, the organizing secretary **Dr. P. Parimalam**, Professor and Head, emphasized the role of ergonomics and its contribution in a wider perspective. The convener Dr. S. Amutha, Dean, Community Science College and Research Institute, in her opening remarks highlighted the significance of ergonomics in minimizing the musculoskeletal discomforts. Dr. V. K. Paulpandi, Dean, Agricultural College and Research Institute, Madurai spoke on role of ergonomics in designing of agricultural implements. Dr. K. S. Subramaniam, Director of Research, Tamil Nadu Agricultural University addressed the researchable issues in the field of ergonomics towards promoting wellbeing of the individuals.



The invited speaker **Dr. A. Mrunalini**, Former Dean, (Home Science) spoke on ergonomics in redefining work and wellness for family and community. During her address she emphasized the future agents of change and the need to accommodate to the newer lifestyle. An interactive session by **Dr. R. Reena Valecha**, Principal ergonomic consultant, Godrej, Mumbai was also a part of webinar. She focused on the issues related to work from home and strategies to minimize the postural stress for good health. Dr. K. Kolandaisamy, Technical Advisor for Covid-19, and former Director of Public Health and Preventive Medicine, Government of Tamil Nadu highlighted on Public health and wellness during Covid-19. With rising concerns on “Am I responsible” for this Covid 19, he spoke on strategies to prevent transmission and also emphasized on the commitment of every individual and the actions by everyone, everyday. The webinar ended with a vote of thanks by Dr. G. Sashidevi, Associate Professor.

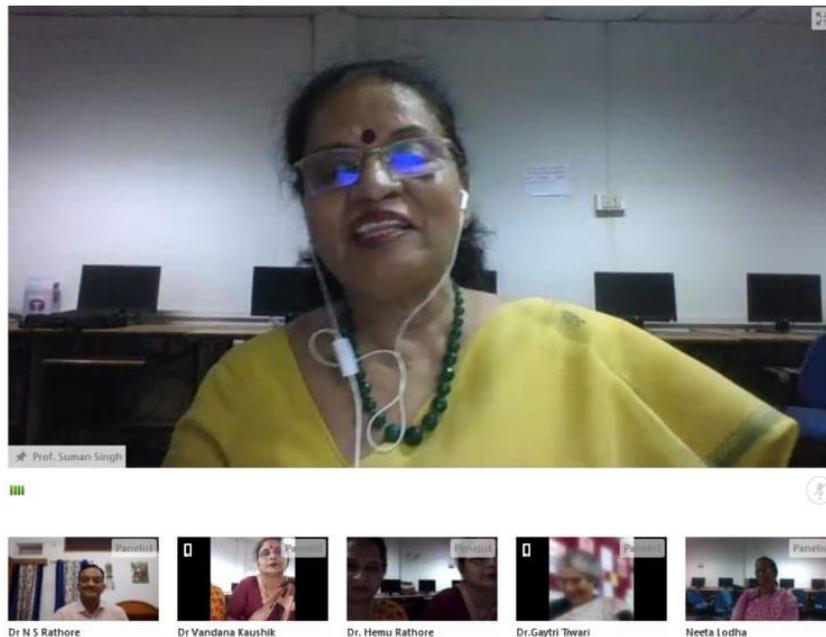
### **National webinar on ‘Ergonomics and Psychological Issues and coping during COVID-19 Pandemic’**

A national webinar on ‘**Ergonomics and Psychological Issues and coping during COVID-19 Pandemic**’ was organized by the College of Community and Applied Sciences, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan on **20<sup>th</sup> June, 2020** with the following objectives:

1. To sensitize youth about emerging ergonomic & psychological issues during pandemic.
2. To enlighten and empower the students about coping strategies to overcome,
  - Ergonomic health concerns due to over-use of computer and other digital devices during Covid-19 pandemic.
  - Effective coping strategies to manage psychological or emotional issues.

Dr Narendra Singh Rathore, Hon'ble Vice-Chancellor, MPUAT, Udaipur was the Chief Guest of the Webinar. Dr Ajay Sharma, PI/Coordinator IDP-NAHEP was the Guest of Honour.

There were three key speakers. **Dr Dhurjati Majumdar**, Ex Scientist 'G', Institute of Nuclear and Allied Sciences, DRDO, New Delhi, spoke on "Ergonomic Issues during work from home and remedies"; Dr Vivek Modi, Wellness Educator & Professional Speaker, Hyderabad gave his lecture on "Navigating through challenging times"; and Ms Puroitree, Senior Clinical Psychologist, Your DOST, Bengaluru shared her experience and views on "Emotional Wellness in the time of COVID-19."



The programme was organized under the aegis of IDP- NAHEP, ICAR, New Delhi. The Organizing Secretary was Dr Hemu Rathore, Associate Prof in the Department of FRM, CCAS, Udaipur and **Dr Suman Singh**, Former Director Student Welfare, MPUAT, Udaipur was the Coordinator of the webinar. A total of 288 participants attended the webinar to whom E-Certificate of participation was given.

### **Online Training on 'Ergonomics Methodologies For Designing And Assessing Women Friendly Agriculture Tools And Technologies'**

A five-day online training programme entitled "**Ergonomics methodologies for designing and assessing women friendly agriculture tools and Technologies**" was organized during **August 17-21, 2020**, under the aegis of College of Community and Applied Sciences, Maharana Pratap University of Agriculture and Technology, Udaipur, supported by IDP, NAHEP, ICAR New Delhi.

Hon'ble Vice Chancellor Prof. Narendra Singhji Rathore was the Chief Guest and Prof Ajay Kumar Sharma, Dean CTAE was Guest of Honour, who is also PI/Coordinator of NAHEP, ICAR, New Delhi. The Coordinator of the programme was Dr Suman Singh, Former Professor and Director Student Welfare and Chairman Sports Board of the MPUAT University. The Organizing Secretary of the prog was Dr Hemu Rathore, Associate Professor in RMCS Deptt.

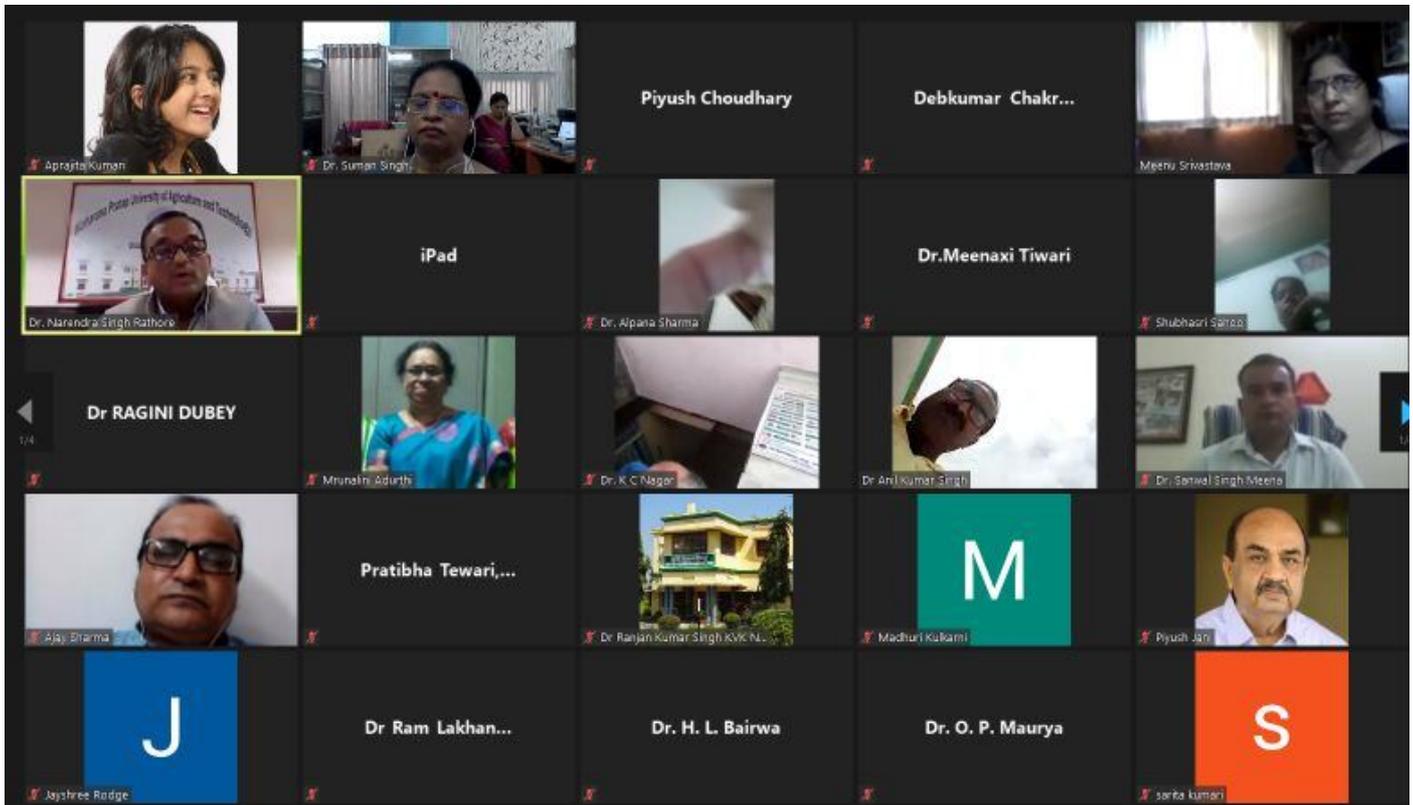
The aim of the training programme was also to provide simple methodologies to assess the suitability of new improved tools in comparison to conventional ones. The course was largely designed to assist especially the Subject Matter Specialists working at Krishi Vigyan Kendras who are promoting improved tools and technologies among women for improving output, comfort and efficiency of farm workers. Specific objectives were:

- To impart knowledge about ergonomics principles to design tools/ technologies/work places suitable for agriculture with specific reference to women workers.
- To provide training in ergonomics methodologies to assess the impact of new technology/process over the indigenous ones with respect to time, effort and efficiency.

Distinguished speakers from different parts of the country were invited as subject experts to deliver the lectures. The online training was designed with the aim to equip students, research scholars and faculty to provide knowledge in designing and assessing compatible tools as per anthropometry and biomechanics of the female agricultural workers.

Scenario of Involvement of women in Agriculture and their drudgery	<b>Dr Suman Singh</b> Prof (Retd), CCAS, MPUAT, Udaipur
Mechanization of agriculture: need, impact and constraints. Criteria for performance evaluation of agriculture tools and implements	Dr Y C Bhatt, Retd Prof, FMPE Deptt, CTAE, MPUAT, Udaipur
Anthropometry and its role in designing women friendly agricultural technologies.	<b>Prof Debkumar Chakrabarty</b> , Deptt of Design, IIT Guwahati
Awkward Postures: a vital occupational hazard to women in agriculture.	<b>Dr Manjeet Kaur Chouhan</b> , Assoc Prof, Univ Dept of RM, CHSc, SNTD Women's University, Mumbai.
Practical on anthropometric measurements and strength parameters, calculating Percentiles for designing tools and machinery.	<b>Dr S S Meena</b> Asstt Prof, CTAE, MPUAT, Udaipur
Drudgery reduction women friendly tools in agriculture	<b>Dr Sudesh Gandhi</b> , Prof FRM, CCAS, HAU (Retd), Hissar.
Characterization of Drudgery of women in agriculture and methodologies to assess drudgery	<b>Prof A Mrunalini</b> , Former Dean, CCAS, PJSTAU, Hyderabad.
Assessment of Physiological cost of work in agriculture work using Heart Rate Monitor. Calculation of rest periods in manual work.	Dr S P Singh, Principal Scientist, IARI, New Delhi.
Quick and Effective Postural Analysis Methods- REBA, RULA, and Strain Index.	<b>Dr Anirban Chowdhury</b> , Head, User Experience and Interaction Design. University of Petroleum & Energy Studies (UPES), Dehradun.

Quick and Effective Postural Analysis Methods- OSHA, NIOSH LIFTING Equation	<b>Dr Tirthankar Ghosh</b> Professor and Consultant Occupational Ergonomist, Faculty of Health and Wellness. Sri Sri University, Cuttack, Odisha.
Injury Risk Assessment	
Influence of environmental parameters on work performance, assessment measures and methods to mitigate.	<b>Joydeep Majumdar</b> , Scientist NIOH, ICMR, Ahmedabad.
Grass-root innovations for drudgery reduction- Experiences from Country.	Dr Nitin Mourya, Scientist and Coordinator, National Innovation Foundation (NIF) Guwahati Cell for North East Region. Guwahati.



The training was executed on Zoom platform and was also live streamed on YouTube. About 350 participants registered and attended the training. The participants were from various fields. The feedback from participants was very good. They also suggested areas for future training.

### **Ergonomics Webinar on “Emerging Issues and Trends in Ergonomics & Human Factors Research: The New Normal”**

The future of ergonomics in the "new normal" will require the development of strong technical and research competencies. To address this need to understand the emerging issues and trends in ergonomics research and its application, NITIE, Mumbai organized an Ergonomics Webinar on “**Emerging Issues and Trends in Ergonomics & Human Factors Research: The New Normal**” on **12<sup>th</sup> September 2020**, in collaboration with the BRICSplus network on Human Factors and Ergonomics.

The chief guest and keynote speaker was **Prof. V. Tewari**, Director, IIT Kharagpur.

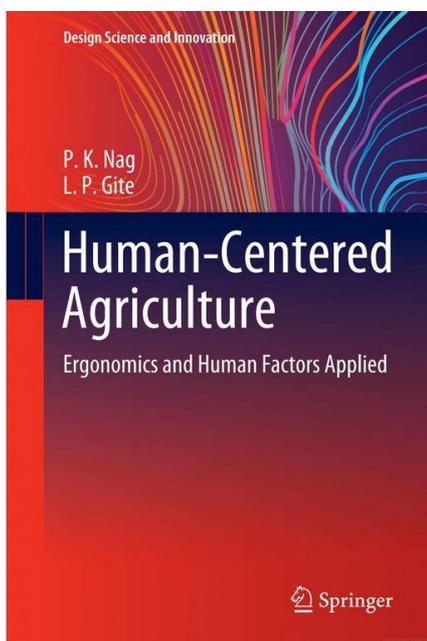
Prof. Waldemar Karwowski, Professor and Chair, Department of Industrial and Management Systems, University of Central Florida, USA; Prof Jose Orlando Gomes, Federal University, Rio De Janeria, Brazil and Vice President & Treasurer, International Ergonomics Association; **Prof. Amitabha De**, Ex-Professor NITIE and Ex-Director, IIM Shillong; **Dr. Anindya K. Ganguli**, Ex Sr.DGM, BHEL and President, Indian Society of Ergonomics; **Prof. Debkumar Chakrabarti**, IIT Guwahati and Director, CIT Kokrajhar, Assam; Prof. Andrew Thatcher, Wits University, South Africa, Prof. Zhang Wei, Tsinghua University, Beijing, China; Prof. Anabela Alves, University of Mino, Portugal; **Prof. Prakash C. Dhara**, Director of Distant Education Vidyasagar University, West Bengal; and Prof Rosemary Seva, De La Salle University, Philippines and President of AsianCoincil on Ergonomics and Design were the speakers.



Prof. Manoj K. Tiwari, Director, NITIE, Mumbai, along with **Prof. Rauf Iqbal** and **Prof. Vivek Khanzode** spearheaded the organizing team comprising of many faculty members and students of NITIE.

## Human-Centered Agriculture: Ergonomics and Human Factors Applied

This book, published by M/s Springer explores the interplay of farm mechanization, human factors and climatic and other environmental uncertainty in agriculture, using an ergonomics-based approach to discuss solutions to the traditionally acknowledged vulnerability of the sector. It converges contemporary research documentation, case studies and international standards on agricultural ergonomics, engineering anthropometry, human factors, basic occupational health services, safety management, human performance and system sustainability to provide a handy reference to students and professionals working to optimize agricultural output while balancing the rational utilization of labour in agricultural practices and human well-being.



The book has 14 chapters grouped in six parts.

Part I, Agriculture Growth and Development gives information about world agriculture with special emphasis on workforce, and explains about farming work methods and practices in small landholding.

Part II, Fundamentals of Ergonomics and Human Factors, embodies the historical emergence of the discipline of ergonomics and human factors, and its gradual penetration in agricultural practices, the workplace drudgery in farming activities, the scope of work scheduling and work-rest cycles to mitigating drudgery and fatigue, and human dimensional and strength compatibility requirements in the design of farm tools and machinery.

Part III of the book, Farm Development, brings an analysis of the disparities of farm mechanization in different geographical regions and discusses various approaches in estimating the mechanization index.

Part IV, Health and Safety, covers an analysis of world scenario of farm accidents and injuries, and accident prevention interventions, and the gamut of health hazards prevailing in farming due to noise, vibration, dust, exhaust emissions, extreme climatic conditions, and pesticide application.

Part V, Ergonomics Application in Design, covers a summary of ergo-design criteria for farm tools and machinery along with specific application of ergonomics in the design of selected farm tools and equipment.

Part VI of the book, Health Services in Agriculture, deals with systems approach in occupational health and safety (OHS) services and management. Here, a national-level model framework of OHS

management in agriculture is also suggested. Different stakeholders will find the book useful in adopting anthropotechnology concepts in the ergo-design of farm machinery and equipment to reduce drudgery, increase productivity, and enhance safety of millions of workers engaged in agriculture all over the world. The book is available from Amazon, also as a Kindle edition.

Authors: L. P. Gite, P. K. Nag

ISBN 978-981-15-7269-2

## \* IEA Updates



### **Principles and Guidelines for Human Factors/Ergonomics (HF/E) Design and Management of Work Systems – available for download**

“Principles and Guidelines for Human Factors/Ergonomics (HF/E) Design and Management of Work Systems,” a draft document jointly prepared by IEA and the International Labour Organization, is available for download [here](#).

IEA President Dr. Kathleen L. Mosier writes: “This draft document was prepared over the past twenty months (August 2018 - April 2020) by a dedicated team of expert writers, reviewers, and representatives from the International Ergonomics Association, the International Labour Organization, and other institutions and organizations that recognize the critical need for Human Factors/ Ergonomics principles and guidelines in the design and management of work systems.

“The completed Principles and Guidelines document is intended to serve as a technical basis for the ILO to develop an international labour standard on workplace good practice on human factors/ergonomics. To prepare for this, IEA and ILO representatives agree that the content of Principles and Guidelines for HF/E Design and Management of Work Systems should be disseminated as soon as possible so that the important principles embodied in this document can be promoted and applied by HF/E practitioners and feedback and experiences can be received and collected, which will be important for its final publication by the ILO and for the ILO’s standard setting work on workplace human factors/ergonomics. This draft version therefore is pre-published by IEA. We welcome comments from all stakeholders.”

## \* Forthcoming National Events



**HWWE 2020**  
**18<sup>th</sup> Annual Conference of the Indian Society of Ergonomics,**  
**December 2020, Boisar, Mumbai**

HWWE 2020 and the 18<sup>th</sup> Annual Conference of the Indian Society of Ergonomics will be held at the THEEM College of Engineering, Boisar, Mumbai in December 2020.

**In view of the pandemic precautions, this conference will now be held in the virtual mode. Please refer to the website for reduction in fees.**



Website: <http://theemcoe.org/hwwe2020/home.html>

Email for Registration and Enquiry: [hwwe2020@gmail.com](mailto:hwwe2020@gmail.com)

## \* Forthcoming International Events



**Joint Conference of the Asian Council on Ergonomics and Design**  
**and the Southeast Asian Network of Ergonomics Societies 2020**  
**December 2-4, 2020**  
**Bohol, Philippines**

The Joint Congress of the Asian Council of Ergonomics and Design (ACED) and the Southeast Asian Network of Ergonomics Societies (SEANES) brings together researchers and practitioners from all over the world to talk discuss relevant work in the area of human factors and ergonomics, with the theme "**Convergence: Creating ergonomic breakthroughs thru partnerships**".

**COVID-19 ANNOUNCEMENT:**

We are moving digital.

With the onset of the COVID-19 pandemic, ACED SEANES 2020 will be held *virtually* as the virus outbreak has pushed us to rethink and provide a safer and better alternative option for your safety.

Accepted and presented full-papers will appear in Advances in Intelligent Systems and Computing by Springer. They will be indexed in Scopus, Web of Science and Compendex. The abstracts of all accepted submissions will appear in the abstract book of the conference which will be available online at the conference website.

**Contact:** Website: <http://www.acedseanes2020.com/> E-mail: [acedseanes2020@gmail.com](mailto:acedseanes2020@gmail.com)



## 8<sup>th</sup> International Ergonomics Conference - ERGONOMICS 2020

December 2-5, 2020

Zagreb, Croatia.

The Conferences in "Ergonomics" series have been organized by the CrES since 2001 as part of CrES objectives to promote ergonomics and to exchange knowledge and experience with the scientific and professional community from Croatia and the World. The Conferences in the "Ergonomics" series have been founded and created by Prof. Budimir Mijović, who was also the President of the Organizing committees of Conferences until 2013.

The official language of the Conference is English. Authors are invited to submit original and previously unpublished research papers for oral and poster presentations and/or to make proposals of original research presentation, challenges, solutions, and technologies within field of Ergonomics.

The post-conference Proceedings indexed in Scopus with full texts of all accepted and reviewed papers will be published by Springer titled "Proceedings of the 8th International Ergonomics Conference - ERGONOMICS 2020".

It is mandatory for participants to fill in the Registration form before abstract submission using the documents: Registration form and Abstract template available on the conference website.

Website: <http://www.h-e-d.hr/conferences.htm>



**IEA**  
VANCOUVER  
2021

## 21<sup>st</sup> Triennial Congress of the International Ergonomics Association (IEA 2021)

June 13-18, 2021

Vancouver, Canada

The 21<sup>st</sup> Triennial Congress of the International Ergonomics Association (IEA 2021) will be held in Vancouver, Canada in June 2021. The Congress theme, "**HFE (Human Factors and Ergonomics) in a connected world/L, ergonomie 4.0**", speaks to the role of emerging G5 technologies. While the technical program will feature theme-related sessions, the Congress will cover the full breath of traditional and emerging HFE topics and applications.



### IEA2021 Updates

**IEA2021 will be a hybrid event, comprising both an in-person conference and a virtual conference.**

Going hybrid will allow people who, for a variety of reasons, will not be able to join the in-person conference in Vancouver to participate in the most important human factors and ergonomics conference of 2021.

The virtual conference will be an integral part of the Congress, but it will have more limited technical content than the in-person conference. The virtual conference will have up to 28 unique webinar-style sessions, compared with about 144 sessions of the in-person conference. The plenary sessions in Vancouver will be live streamed to the virtual conference delegates.

**Registration fees will be reduced to make the virtual conference widely accessible.** Virtual session delegates will be able to join the online webinars at scheduled times to pose questions and interact with the authors. The recorded virtual sessions will be available on demand for 30 days post Congress. In-person delegates will have access to the virtual conference as well.

Website: <https://iea2021.org/>

Contact: [Info@IEA2021.org](mailto:Info@IEA2021.org)



**AHFE 2021 International Conference**

**July 25-29, 2021**

**New York, USA**

You are cordially invited to submit an abstract for paper presentation or poster demonstration at the 12th International Conference on Applied Human Factors and Ergonomics (AHFE) 2021 and the Affiliated Conferences which will be held at the Sheraton Times Square, Manhattan, New York, July 25-29, 2021.

Abstract Submission Deadline (500 words): 1 December 2020

AHFE Submission System: <https://www.ahfe-cms.org>