



# International Society for Occupational Ergonomics & Safety

Fall 2023

## INSIDE

Letter from the past president (2)

2023 Student Award Winners (3)

ASSP Booth (4)

Intl. Member-at-Large Jaejin Hwang (4)

Intl. Member-at-Large Tony Udemba (5)



- In-person attendees of the XXXV<sup>th</sup> annual ISOES Conference, held in Munich (Freising), Germany in October.

## Letter from the President

- Richard Wyatt Ph.D, PE, CPE, CSP, CQE



The year has flown by, and it seems like yesterday we were discussing and planning our conference in Munich, Germany, with a new twist, as we partnered with the Society of Industrial and Systems Engineering (SISE) and not only learned something new in safety and ergonomics but also viewed some exciting research in Industrial and Systems Engineering. 2023 has passed like a flash, and we are off to a new year for our society. As your new President, I would first like to thank our outgoing President, Dr. Marc Snell, Ph.D for his leadership during the past year. Marc resides and works in Germany, and through his leadership, the conference was a huge success with a variety of original research and applications-based presentations. I think we all enjoyed the 2023 conference, our first return to an in-person conference, even though most of the attendees were virtual. Technology is a wonderful addition to the conference and we

plan to maintain both a virtual and in-person conference in 2024. The ISOES website was recently updated with our [2024 call for abstracts](#). Stay tuned as plans for the [XXXVI<sup>th</sup> annual conference in Denver, CO](#) are finalized.

Our society is a cross functional group of safety and ergonomic professionals from both academic and private organizations. We have two new additions to the EC, Mr. Jim Vachon CSP, who is the head of the Risk Control team at QBE insurance in New York City. Mr. Murray Gibson, CPE is in private consulting and is a Ph.D. student at Auburn

University. Our members are from large and small universities, private consulting, and many types of public and private businesses. Our members live and work in many parts of the world and bring a variety of views and ideas to our society. I am truly thankful to be a part of the ISOES and look forward to serving as your President for this year.

As we move forward in our 2023-2024 year, I would like to see our membership grow. I believe that we should all attempt to invite others in your network to the 2024 conference, and I would like to challenge the entire membership to join me in inviting others to join our organization and attend our conference. The EC has already begun to plan the 2024 conference and we plan to partner with SISE again in 2024.

Another opportunity to invite others the conference and to get involved with ISOES is through your local American Society of Safety Professionals (ASSP) chapter. If you are a member of ASSP, invite members of your local chapter to join ISOES and attend our 2024 conference. My challenge for our membership in 2023/24 is for everyone in ISOES to invite one additional safety/ergonomic professional to the conference.

More details will be posted to the website as soon as they are developed by the Executive Committee. Let's all work together to invite students, researchers, safety and ergonomic practitioners, and managers from local organizations to get involved with ISOES.

## Letter from the Past President

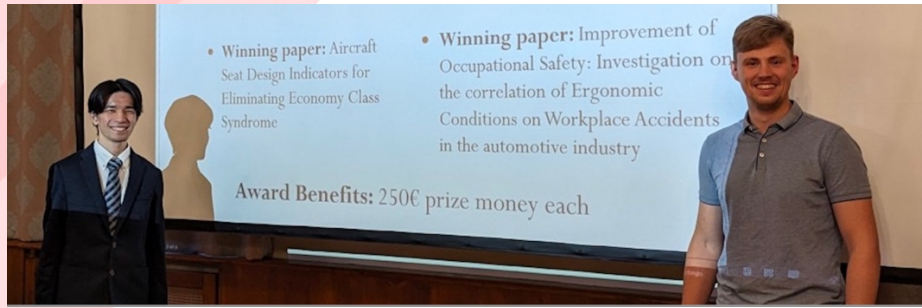
- Marc Snell PhD, Eur.-Erg.

The 2023 ISOES conference was a resounding success for our authors and attendees. For the first time since the pandemic, ISOES hosted an in-person conference in the beautiful city of Munich, Germany. The conference was cohosted with the Society for Industrial and Systems Engineering (SISE). In total about 10 persons attended in-person, while around 30 attended online. Over the course of two days, people presented on diverse topics of systems engineering, human factors and ergonomics, occupational safety and health, manufacturing, and reliability. ISOES was proud to welcome Dr. Johannes Brombach from the Munich University of Applied Sciences as our keynote speaker. He is a current professor for Work Science and Ergonomics and the vice president of the German Association for Work Science. A group dinner at the oldest brewery in the world, the Bräustüberl Weihenstephan, was another highlight of the conference. The conference proceedings were prepared in record time; less than a month after the conference. It is only due to the diligent work of the whole executive committee and the combined effort with SISE, that this conference was such a success. We will certainly look forward to an in-person conference for the next year, and continuing our partnership with SISE.



Overall, I would like to extend by warm thanks to the entire executive committee for their help and hard work this year, in making the other activities of ISOES possible; Richard Wyatt our president elect, Steve Fleming our past president, Anoop Desai our secretary, Anand Iyer our treasurer, Gabriel Ibarra-Mejia and George Page our members-at-large, and Tony Udemba and Jaejin Hwang our international members-at-large.

# 2023 Student Award Winners



- Kohei Ogi, Meijo University (left) and Sven Vogel, University of the Federal Armed Forces, Munich (right).

## Kohei Ogi:

I am a second year graduate student in the Department of Vehicle and Mechanical Engineering at Meijo University. My interest in ergonomics began in high school when I participated in world competitions in floorball (a sport similar to field hockey or ice hockey). I used an airplane to go to the World Games, and I felt fatigue built up on a long flight. Because of this experience, I am working on my current research to make myself comfortable and less fatigued when traveling by airplane.

My presentation at the ISOES 2023 Conference reported on the results of aircraft seated simulations based on finite element analyses. One of the challenges of long flights is the economy class syndrome. In order to examine the factors of the economy class syndrome in terms of the relationship between a seat size and a body size, it is necessary to conduct experiments on a wide range of subjects including the body size of affected passengers. Therefore, in this study, we created a human body model with a wide range of physiques and performed a seated simulation using a finite element analysis software. The results showed a difference in the pressure distribution between the average male and female drawn from a human body database, with short, small female experiencing the greatest stress when seated. In the future, we would like to create a model of the physique of a patient diagnosed with the economy class syndrome, conduct a seated simulation, and conduct a factor analysis.

I really enjoyed my experience at the conference and received valuable comments and research presentations from experts in both the ergonomics and industrial systems engineering fields, which will be a great benefit for my future research. Finally, I would like to thank the ISOES 2023 Conference Committee for providing me with a good opportunity and a student paper award. And I would like to thank Professor Senba for his guidance on this research.

## Sven Vogel:

It gives me great pleasure to tell you about my research project as a doctoral student at Bayerische Motoren Werke (BMW). I am in the second year of my graduate studies at the University of the Federal Armed Forces in Munich and have specialised in occupational safety and ergonomics. This passion arose during my bachelor's degree and later during my internship at BMW in 2018 and has stayed with me ever since.

My research aims to make the workplace safer and more ergonomic to improve the health and well-being of employees. At the same time, I also aim to take an economic approach, looking at predictive occupational health and safety management and the costs produced or saved as a result.

I recently had the opportunity to present my research findings at the ISOES conference in October 2023. I showed a meaningful result that examines the relationship between ergonomic stress in the workplace and the number of accidents. All workplaces are assessed using a tool. The most important criteria were then identified. A correlation matrix was used for this, followed by a multicollinearity analysis to rule this out. By calculating the number of accidents in terms of accidents per 1000 hours worked, a multiple linear model was used to show that there is indeed a correlation between the ergonomic conditions at the workplace and the number of accidents.

This milestone is an essential cornerstone for my further research work and has also motivated me to familiarize myself even more with the topic and to write other publications. Winning the prize for the best contribution has boosted my self-confidence and shown me how important my work is. I know I am only a tiny cog in an extensive system, but every contribution, however small, leads to progress in the future occupational safety of employees.

I want to take this opportunity to thank my professor, Prof Dr Andreas Brieden, who is always on hand with help and advice. I would also like to thank Dr Marc Snell, who has actively supported me and made a significant contribution to enabling me to obtain the necessary data for my analysis more quickly.

I hope that my research will help to make future workplaces safer and more ergonomic and thus improve the health and well-being of employees.



# ASSP Expo in San Antonio, TX



-Left to right: Steve Fleming, Richard Wyatt, Lawrence Schulze, and Lu Yuan

door to our old friend Lu Yuan, who was attending the booth for Southeastern Louisiana University. Lu served on the ISOES EC from 2018-2020 as Member-at-large. Thanks to Jim Borchardt, ISOES will once again have a presence at the ASSP Expo, which is to be held August 7-9, 2024 in Denver, CO. All ISOES members are invited to help promote the society by volunteering to help staff the booth during the expo. Booth volunteers not only receive complimentary access to the Expo, but to the ASSP Conference sessions as well. Volunteers may also register their clients, colleagues, and friends to attend the Expo free of charge. For more information, please reach out to us at [ISOESinfo@gmail.com](mailto:ISOESinfo@gmail.com).

- Steve Fleming & Jim Borchardt.

ISOES outreach was in full force at the ASSP Conference and Expo last June. Thousands of occupational safety & health professionals from around the world descended on San Antonio, TX for the 3-day conference. Steve Fleming and Richard Wyatt attended the ISOES Booth, where we worked to promote ISOES and its many outreach initiatives. ASSP Fellow Roger Jensen (Montana Tech) and Lawrence Schulze (University of Houston) stopped by the booth as well. Roger and Lawrence were the 17<sup>th</sup> and 18<sup>th</sup> Presidents of ISOES and we were fortunate to have them join us in our efforts. In a "small world" moment, we found that we were fortunate to be positioned next



-Center: Roger Jensen



## My Involvement with ISOES: A Transformative Journey

- Jaejin Hwang PhD

I am excited to recount my enriching experience as a member of the executive committee at ISOES. In 2019, I was extended a gracious invitation by Dr. Sang D. Choi to join this esteemed group as an international member at large. Since then, my journey with ISOES has been nothing short of transformative.

Attending ISOES conferences, whether in person or virtually, has been a cornerstone of my involvement. These experiences have not only broadened my understanding of ergonomics and safety but have also provided invaluable insights into the intricacies of organizing annual

conferences. The blend of practitioners and academic scholars within our committee created a dynamic synergy that contributed significantly to our collective endeavors.

One notable achievement during my tenure was the initiation of the student award. Witnessing a student from our lab receive this recognition was particularly gratifying. The impact on her enthusiasm for pursuing further research in academia was evident, underscoring the profound influence such initiatives can have on budding professionals.

Moreover, I seized opportunities to actively contribute to the ISOES newsletter on multiple occasions. This experience prompted me to contemplate effective ways of conveying my thoughts and research findings in a manner that is both accessible and engaging to a broader audience. The process of crafting content for the newsletter became a source of genuine enjoyment for me, as it challenged me to distill complex concepts into reader-friendly narratives.

As my term on the executive committee concludes this year, my commitment to ISOES remains unwavering. I am eager to continue attending annual conferences and contributing to the group in any way possible. Serving on the executive committee has been a tremendous gateway experience, providing me with unique insights into contributing to an international society.

For those considering involvement with ISOES, whether students, practitioners, researchers, or professors, I wholeheartedly recommend the experience. It offers an unparalleled opportunity to understand the inner workings of the ergonomics and safety society while actively contributing to its growth and impact.

## Farewell Note

- Chiemezie Anthony Udemba PhD Student, The Ohio State University

Every new day there is an opportunity for me to improve upon myself. Nelson Mandela once said, "life is a game for everyone, and love is the prize, so life is a Gamble." Whenever I look at my life, I'm convinced there is something called grace and it operates in different ways for different people.

I have such a wonderful collection of memories from the time I spent with international society for occupational ergonomics and safety (ISOES) Executive Committee members, but I think the most important memory I will take away is being able to sit down and share with them my background and culture of where I come from. The most important one is the experience of knowing that disregarding how different our backgrounds are, we all have the same goal: we want to make an indelible contribution to the world that we leave behind.

Martin Luther king once said, "silence is a betrayer." He also said hard work leads to success which is a fundamental combination; that is the combination I want share during my tenure as international member at large. I believe that the past year has made such an impact on my life. I can only imagine what the next year could bring working with such an amazing organization and meeting so many wonderful and influential people. I remain entirely grateful to the organization for giving me such a wonderful opportunity. I want to make an impact on the lives of others and help everyone as much as possible. It will be a great honor for me to help people because there is nobility in compassion, beauty in empathy, and grace in forgiveness. So live, laugh, and most importantly be happy. As my mum used to say, "Be happy not because everything is good, but because you can see the good side of everything."

I am so grateful for having been a product of the (ISOES) Executive Committee. Due to hard work, I was able to make my dreams come true. I was awarded the Google and UPS awards through the American Society of Safety Professionals (ASSP), in addition to the Board of Certifying Safety Professionals (BCSP) and the National Safety Council (NSC) awards. My ability to pursue academic and professional excellence despite my life challenges is moving. What makes my achievement even more inspiring is that no matter what success I achieved this past year, I saw it through to the end. If I was able to, I tried to help someone else achieve their own personal goals as well. At the end of this year, all I feel is gratitude; gratitude for an opportunity where I can use my voice and am also thankful for the opportunity for an education. I'm so blessed that I



was able to do life for the past couple of years with this amazing organization.

My worldview and knowledge have expanded so much in the last couple of years and interestingly are the change I wish to see in the world: "Treat every day as a gift not as a given right." Receiving the scholarships boosted my self-confidence, knowing that not only did I complete a very important task, but also took the responsibility of creating a foundation for getting me closer to my career goals. The scholarships that were awarded to me pushed me further towards my career goals.

Finally, I am extremely grateful, thankful, and will forever appreciate the organization. What a journey this has been. Above all, thank you God. I lift everything up to glorify and honor you, as I close this chapter I do so with a grateful heart. I am closing one of the most beautiful chapters of my life, one filled with emotion, learning, friendship, and growth. I have travelled several bumpy roads in the past to get to where I am today. Like almost everyone else, I can say my life so far has been a life of twists and turns, ease and struggle, tests and trials, rises and falls, bitter and sweet. Nothing worth having is easily gained; all of these have shaped me into who I am today. I would like to thank ISOES for the wonderful memories you all have given me. You have truly enriched my life with your kindness and generosity.

Although my life is still on going and I have miles to go before I sleep, (because living is easy when eyes are closed) if I leave this earth tonight, may it be said that I spoke how my life was transformed by the organization, because of them I never felt alone. My quest in life is to give that back to as many as I can and to inspire the world with my story. No matter where you're from, skin type, hair color, your situation and dream are valid, which I strongly believe. This isn't the end but the beginning of greater things to come. See you in the next chapter of my life, "I am a part of all that I have met, and they are a part of me."