



Safety TG Newsletter

Human Factors and Ergonomics Society

Summer 2016

Table of Contents

Letter from the TG Chair...1
Officer Nominations.....2
Member Updates.....3
Collaboration Opportunities
 Product Safety Culture....4
 Proactive HF in Safety....4
 Bicycle Safety Group.....4
2016 Conference.....4

The Safety Technical Group consists of individuals interested in research and applications concerning safety-related human factors issues. Application areas include transportation, industry, military, aerospace, offices, public areas and buildings, recreation, and home environments.

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From the TG Chair

As the term for the current Safety Technical Group officers draws to a close and the anticipation of fresh members begins, I would like to take this opportunity to thank all of the volunteers who have done the heavy lifting in supporting services and activities, and giving encouragement to our members to get involved.

Thank you, Jay Pollack – Technical Program Director – for your years of service to the STG. You are always there, the first to volunteer, and always thinking. You provide a sound foundation to the group’s purpose and goals and keep us well-documented. I sincerely hope you will consider continuing in your role, the group needs you!

Bill Vigilante serving as STG Program Chair does a tremendous job by steadily leading the charge for paper submission and review. Bill diligently promotes our student work and recognizes their intellectual contributions by advocating for the student award. It is impressive to see how much volunteer work goes on before, during and after the annual meeting each year to support the quality of the program.

Thank you Noelle Brunelle for stepping up to the task of Newsletter Editor. She not only keeps us current on our HFES reporting obligations, making certain that STG-supported events and activities were well publicized, but Noelle pushes us to think about our field and talk about who we are, what we do, and how to improve (and get it all in on time).

Katie Berry, Webmaster, we thank you for your many years of service to (patiently) keep us updated and informed on the STG website. She sets the framework for the current website and keeps us web-friendly.

If you have the opportunity see them at this year’s meeting in Washington DC, please thank them! *...continued next page...*

Looking ahead, the STG is ready to welcome and support our incoming, yet to be determined, crew. So on that note, we like to inform you that the STG is currently seeking nominations for the following positions:

Technical Group Chair
Program Chair

Secretary-Treasurer
Newsletter Editor

If you are interested in nominating yourself or colleague, please email me (nancy.daraiseh@cchmc.org) the following by **JULY 31, 2016**:

- Name and affiliation
- 2-3 sentences on why you (or the nominee) would like to be elected.

From experience, this is an excellent opportunity to get to know many great individuals and is essential for the vitality of the STG and HFES.

~ Nancy M. Daraiseh

Best Student Paper Winners!

The HFES Safety TG is proud to announce the winners of our Annual Student Paper award. The award is open to all Annual Meeting student papers or lectures submitted to the Safety Technical Group. The award is given to the top two rated student submissions as rated by three reviewers. The awards include a \$500 and \$250 check to the 1st and 2nd place winners, respectively, along with a certificate and the opportunity for the 1st place award winner to present a synopsis of their work during the Safety TG business meeting at the annual conference in September.

This year's winners are:

First Place: Yousif Abulhassan, Auburn University

Mr. Abulhassan's paper, *Relating the strength capabilities of children to the design of school bus emergency roof hatches*, was co-authored with Jerry Davis, Richard Sesek, Sean Gallagher, Mark Schall, and Aimee Callender.

Currently, school bus emergency exit designs do not always consider the strength capabilities of children. This study explored the strength capabilities of children to determine the optimal force specifications required to operate school bus emergency escape roof hatches. Matching the operational requirements of emergency exits to the strength capabilities of children can help improve the overall effectiveness of the emergency evacuation system.

Second Place: Philippa (Paige) Dodshon, University of Queensland

Mrs. Dodshon's paper, *Incorporation of human and organizational factors in incident investigation processes - The practitioners perspective* was co-authored with Maureen Hassall.

Although substantial amounts of research has been undertaken to understand the human contribution to organizational incidents little research has been done to explore whether or how these discoveries have been implemented in the field. To address this gap we surveyed industry practitioners to determine their perspectives on the use of human and organizational factors analysis as part of current incident investigation processes. Participant observations indicated threats existed to successful identification of human and organizational factors issues and the subsequent implementation of recommendations to address them.

Please join us in congratulating our student winners, and we encourage you to seek them out at the Annual Meeting (if not before)!

Member Updates

Walkways are often built and maintained according to codes or standards that become outdated, or are not backed up by research. Such documents are created through consensus by committees based on a number of factors including historical precedence, common practice, cost, and, sometimes, empirical data. Two recent articles by **Dr. Dan Johnson, CPE, CXLT** examine many elements of common walkway codes and standards related to changes in level, stairways, stair handrails, lighting, slip resistance, and warnings and markings and which could benefit from additional scientific research.

Nemire, K., Johnson, D., Vidal, K., (2016) The science behind codes and standards for safe walkways: Level walkways, stairways, stair handrails and slip resistance. *Applied Ergonomics* 52, 309-316.

Cohen, H.H. & Sloan, G.D. (2016). The science behind codes and standards for safe pedestrian walkways: Lighting and visual cues. *Applied Ergonomics*, Volume 52, 112-119.

Dr. Stella Marie Rostkowski has published a book about the effects of Carpal Tunnel Syndrome in the workplace. In addition to being available via the usual outlets, her book* is available in two public libraries: Appleton, WI and Park Ridge, IL. Dr. Rostkowski holds a Ph.D in Organization Management and is affiliated with University of Riverside and Southern Illinois University.

* Exploring What It Effectively Means to Manage Carpal Tunnel Syndrome's: Physical, Social, and Emotional Crucibles in a Return to Work Program; ISBN- 10: 504968905 ISBN-13: 978-1504968904

For her research with Ryerson University's THRILL (Tools for Holistic Ride Inspection Learning) Laboratory that focuses on human factors engineering and amusement ride designs, **Dr. Kathryn Woodcock** was awarded one of four Safety Awards during the Technical Standards and Safety Authority's Annual General Meeting in Toronto. The TSSA's Safety Awards program celebrates individuals and organizations that have made significant contributions to public safety in Ontario. Dr. Woodcock's unique and innovative work balancing safety and fun has made a significant contribution to the safety of amusement parks across North America. More information is available at <https://www.tssa.org/regulated/about/safetyawards.aspx>

In bathing and showering facilities, grab bars are just as important as are handrails on stairs. Ironically, there are few generally applicable usability and fall safety requirements for bathing and showering facilities in safety standards and building codes. **Jake Pauls, CPE** has recently been participating in deliberations among experts and submission of proposed changes to US and Canadian safety standards and codes to improve usability and safety of bath/shower facilities. Mr Pauls is in his 49th year of international experience in research, codes/standards development, public health advocacy and consulting.

Collaboration Opportunities

Product Safety Culture: Lucia Suhanyiova is a PhD student at the University of Aberdeen's Industrial Psychology Research Centre. Her research, studying product safety culture is sponsored by ESRC/ BAE Systems. Her research examines how aspects of organizational culture, such as workers' and managers' attitudes, behaviours and safety practices can influence the safety of the products or services produced by their companies. The aim of this research is to improve our understanding of how to reduce the risks to consumers and users of products. Ms. Suhanyiova would be interested in hearing from any researchers or practitioners *who have examined organisational culture as a means to improve product safety*. You can contact Lucia on r02ls14@abdn.ac.uk .

Human Factors Influence on Product Safety: At the annual meeting, a small group of us met to explore opportunities for early-professional human factors practitioners to proactively influence operational and workplace safety proactively (i.e not have to wait for an injury to occur) within their company). After bouncing some ideas around, we agreed on three possible paths forward:

1. Collect and curate advice, techniques and lessons and make them available for instructors/professors to draw from.
2. Develop a stable of SMEs/professionals willing to visit or conference in to classrooms.
3. Explore and propose a panel for next year's conference.

If you would like to support this effort by contributing to or participating in any (or all) of these paths, do not hesitate to contact Dr. Caroline Sommerich (sommerich.1@osu.edu) or Noelle Brunelle (noelle.brunelle.1@gmail.com).

Bicycle Interest Group: A group of members, led by Tom Ayers, would like to form an interest group focussed on human powered vehicles (including bicycles). This is an area ripe for attention, not only with respect to vehicle design, but also safe interfaces between HPVs and other vehicle systems. Tom's goal is to form a group that meets at the annual meetings, provides a forum for discussion on the internet, organizes sessions through the existing TGs (or through the general sessions), and gives people interested in HPVs a sense of a research community. If you would like to support this effort, please contact Tom at tjayres@sbcglobal.net .



In addition to the Arnold Small Lecture, the Safety TG will have four sessions (and sixteen papers) at the HFES Annual Meeting:

- S1: Tuesday September 20: 10:30 AM to 12 Noon
- S2: Tuesday September 20: 1:30 PM to 3 PM
- S3: Wednesday September 21: 8:30 AM to 10 AM
- S5: Thursday September 22: 8:30 AM to 10 AM

Thank you to everyone who submitted papers, and we look forward to seeing you in Washington DC in September!