Volume 5, Issue 2

August 2016

IEA Visual Ergonomics Newsletter—August 2016

Visual ergonomics is a diverse field. We have 75 members of this IEA Visual Ergonomics Technical Committee (VE TC). Among our ranks are ergonomists, physical scientists, optometrists, medical doctors, physiotherapists, psychologists, engineers, computer scientists, architects and lighting designers. Our members comprise academics, practitioners and students, and we have members residing in each world continent.

Diversity is what I enjoy most about the IEA VE TC. It enables me to keep in touch with visual ergonomics topics outside of my immediate expertise, and I am frequently surprised at how disparate and seemingly unrelated snippets of knowledge are often useful for my work.

This newsletter reflects some of this diversity with news from a range of disciplines. I hope that you find it interesting, and inspires you to read a little more about a topic outside of your normal work realm.

If you have any VE news which you would like included in the next newsletter, then please send it through to me by the 30th November 2016.

Jennifer Long

IEA Visual Ergonomics TC Chairperson

Honours and Awards

Catherine Burns has been elected as a Fellow of the Human Factors and Ergonomics Society (HFES). Presented at the HFES conference in October 2015, Catherine was given this honour for her contribution to the field of ecological interface design and her service to the HFES.

Catherine works at the University of Waterloo in the Centre for Bioengineering and Biotechnology and in the Advanced Interface Design Lab. She was also one of the founding committee members of the IEA Visual Ergonomics TC and served on this committee from 2010—2012.

On the 9th June 2016, **Camilla Zetterberg** successfully defended her thesis at Uppsala University, Sweden: "*The impact of visually demanding near work on neck/shoulder discomfort and trapezius muscle activity".* Camilla is a physiotherapist, and is currenlty working as a researcher and teacher at the University of Gävle.

If you would like a pdf copy of her thesis, please email Camilla at Camilla.zetterberg@hig.se

Octavio Luis Perez successfully defended his thesis in New York, USA, on the 7th July 2016: "*Lighting and Healthcare. Effects of 'blue-regulated' full spectrum lighting in clinician performance and patient safety"*.

Octavio has also been shortlisted for a 2016 DARC (Decorative Lighting in Architecture) award. A synopsis of his entry can be seen at http://darcawards.com/architectural/emergency-department-dynamic-lighting-usa/

Upcoming Events

OZCHI2016
Launceston, Australia, 29 November—2 December 2016
www.ozchi.org/2016

CIE 2017 Midterm meeting, Jeju Island, Republic of Korea, 24-27 October 2017
http://www.cie.co.at/index.php?i_ca_id=1001

Nordic Ergonomics Society (NES) Annual Conference, Lund, Sweden 20-23 August 2017.
http://www.eat.lth.se/nes2017/

IEA 20th Triennial Congress, Florence, Italy
25th August—1st September 2018.
http://iea2018.org/

Request for information about lighting in public places

This is a request from Peter Thorns, Thorn Lighting Limited, United Kingdom. Peter is also an IEA VE TC member.

A hot topic is light at night and the impact on health, well-being and the environment. The human circadian system is blue weighted but is also triggered by light across the full visual spectrum due to the cones being linked into the circadian mechanism. In addition, the human visual system is much less effective under low light conditions than many animals and plants. This means that light of sufficient quantity to allow human vision, and perceptions of safety, is too bright for many plants and animals. When we consider that the key point for lighting is dusk, and to a lesser extent dawn, which are also the key circadian trigger points then night curfews during periods of low traffic are not particularly effective except from an energy standpoint.

I would be interested in any research or papers on practical methods to increase visual perception and feelings of safety within public spaces without increased lighting and preferably with reduced lighting.

If you can help Peter, please contact him directly at peter.thorns@zumtobelgroup.com

Recent publications relevant to visual ergonomics

- Mork R, Bruenech JR, Thorud HM (2016) "Effect of Direct Glare on Orbicularis Oculi and Trapezius During Computer Reading". *Optometry and Vision Science* 93(7): 738-749.
- Lin SH, Tey LK (2016) "A preliminary study on normalized pattern-reversal peripheral field SSVEPs as a potential objective indicator of useful field of view performance." *Investigative Ophthalmology and Vision Science* 57:3248–3256.
- Marvasti AA, Bi W, Mahroo OA, Barbur JL, Plant GT (2016) "Transient smartphone "blindness". *New England Journal of Medicine* 374(25) 2502-2504
- Narayanasamy S, Vicent SJ, Sampson GP, Wood JM (2016) "Visual demands in modern Australian primary school classrooms" *Clinical and Experimental Optometry* 99: 233-240.
- Köpper M, Mayr S, Buchner A (2016) "Reading from computer screen versus reading from paper: does it still make a difference?" *Ergonomics* 59(5): 615-632.
- Dain SJ, AlMerdef A (2016) Colorimetric evaluation of iPhone apps for colour vision tests based on the Ishihara test. *Clinical and Experimental Optometry* 99: 264-273.

For a different perspective, here is a "work transitions narrative" about a blind teacher with retinitis pigmentosa in Turkey and his quest to obtain work.

Koca-Atabey M (2016) "Becoming a blind teacher in Turkey: A long journey". *WORK* 54 (3): 759-764

NEXT NEWSLETTER DEADLINE:
30th NOVEMBER 2016
jlong@visualergonomics.com.au