

Hello, and welcome to the IEA Visual Ergonomics Technical Committee (VE TC) newsletter.

One of the challenges for visual ergonomics, and for ergonomics in general, is to make the discipline more well known outside of traditional ergonomics circles.

Promoting visual ergonomics is a core activity of our IEA VE TC. I am therefore very pleased to include in this newsletter six reports of conferences and meetings where visual ergonomics was a theme.

Three of these meetings were badged as visual ergonomics—the SNiS meeting in Stockholm, Sweden, the NES VE network meeting in Lillehammer, Norway and a breakfast meeting in Örebro, Sweden.

The other three meeting reports—AVA (England), OZCHI2015 (Australia) and CIE2016 (Australia) are not explicitly labelled “visual ergonomics” but include very strong visual ergonomics content.

I hope that you enjoy reading about these VE

activities and are inspired to write up short reports for this newsletter about meetings and conferences that you attend.

If you have any VE news which you would like included in the next newsletter, then please send it through to me by the 15th August 2016.

Happy reading!

Jennifer Long

IEA Visual Ergonomics TC  
Chairperson

## Sweden—SNiS meeting

### *Report by Ann-Kristen Nyström*

Twenty six people attended the annual SNiS meeting in Stockholm on the 5th February 2016, organized by Per Nylén and Anki Nyström. The main topics for this year’s informal and educational meeting were UX (User eXperience) and control rooms.

There were two speakers in the morning session. Rebecka Hallqvist described her work designing a new control room for one of the subway lines in Stockholm. The goal of this project was to improve the subway operations and logistics—a considerable challenge considering that the project needed to be completed while the subway remained operational 24 hours a day.

Senior UX strategist, Nils-Erik Gustafsson, gave a presentation on the topic of security, vigilance and performance, a particularly important issue during the early morning hours (3am to 4am) when accident rates are highest.

The afternoon session included a practical session presented by Per Nylén on the topic of measuring light, luminance and illuminance, and a presentation by Anki Nyström on the emotional responses to indoor and outdoor lighting.

*“Hej” (hello), from attendees at the SNiS meeting in Stockholm.*



## Upcoming Events

Nordic  
Ergonomics  
Society (NES)  
Annual  
Conference,  
Kuopio,  
Finland 14—17  
August 2016.

<http://www.uef.fi/fi/web/nes2016>

IEA 20th  
Triennial  
Congress,  
Florence, Italy  
26th—20th  
August 2018.

<http://iea2018.org/>

## Norway—NES Visual Ergonomics Network

### Report by Hanne Mari Shiøtz Thorud

The Visual Ergonomics Network (VE) within the Nordic Ergonomics Society (NES) is an informal network for professionals within many disciplines, all with a common interest in visual ergonomics. The group was established after an initiative from ergonomist and physiotherapist Ann-Kristin Nyström and docent Per Nylén (Sweden) in 2005. The main purpose of the network is to facilitate cross-disciplinary communication and collaboration among professionals with an interest in visual ergonomics. Secondly, the network is responsible for assisting the NES organizers to promote and run sessions on visual ergonomics at their annual conference. Such sessions have now been organized annually at NES conferences since 2006. Many of the members in the VE NES network are also members of the IEA VE TC.

The VE Network met last November at the NES2015 conference in Lillehammer, Norway. During the meeting several topics were discussed, including: the need for further education of opticians, physiotherapists, architects, engineers, designers, teachers among others, within visual ergonomics; the need for knowledge about vision and visual ergonomics within occupational health services; the need for more high-quality, national and international research studies and randomized control trials; and promoting visual ergonomics to the public and to other professionals.

A report about the actual NES2015 Conference was published in the December 2015 edition of this IEA VE TC newsletter.

## England—Applied Vision Association (AVA)

### Report by Craig Aaen-Stockdale

The AVA (formerly the Applied Vision Association) is a UK-based charity that aims to advance, promote, develop and improve the study, knowledge and application of the visual sciences. The Association does this primarily through organizing regular scientific meetings (usually two per year) and making various financial awards including travel bursaries to young vision scientists. The Association celebrated twenty years of Christmas Meetings in December 2015 with a one-day meeting held in the delightful setting of the People's Palace Building at Queen Mary University of London. This year's keynote talks included Peter Neri (Ecole Normale Supérieure) discussing image reconstruction from natural scenes, and Denis Pelli (New York University) discussing how machine learning is being used to inform models of object recognition.

Topics discussed included the role of eye movements and early cortical responses in the subjective discomfort caused by 'visually uncomfortable' stimuli (O'Hare), the enhancement of contrast sensitivity after playing computer games (Mikailionyte *et al*), and yet more empirical data suggesting that the segregation of perception and action in the brain has been overstated (Cesanek *et al*).

Abstracts for all previous meetings, calls for future meetings and details regarding membership can be found at <http://theava.net/>.

## Recent publications

- 👁 Domkin D, Forsman M, Richter H. Ciliary muscle contraction force and trapezius muscle activity during manual tracking of a moving visual target. *Journal of Electromyography and Kinesiology* (published online 9 December 2015)
- 👁 Richter H, Crenshaw A, Domkin D and Elcadi G. Near-infrared spectroscopy as a useful research tool to measure prefrontal cortex activity during visually demanding near work. *IEE Transactions on Occupational Ergonomics and Human Factors* (published online 22 December 2015)

## Upcoming Events

### OZCHI2016

Launceston,  
Tasmania, 29  
November—2  
December 2016

[www.ozchi.org/2016](http://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](http://www.cie.co.at/index.php?i_ca_id=1001)

## Sweden—Visual Ergonomics breakfast meeting

*By Eva Jangdin*

A breakfast meeting was held on the 20th January 2016 in Örebro, Sweden, for 23 ergonomists interested in visual ergonomics. Topics discussed included lighting and good ergonomics, how inadequate visual conditions can increase the risk of musculoskeletal disorders, and visual ergonomics tools and checklists. The meeting concluded with a group discussion of some fictitious health care case studies.

More information about the meeting can be found (in Swedish) at <http://www.regionorebrolan.se/amm/temasynergonomi>

## Australia—OZCHI2015 conference

*Report by Jennifer Long*

OZCHI is an annual conference hosted by the Computer Human Interaction Special Interest Group (CHISIG) of the Human Factors & Ergonomics Society of Australia (HFESA). I attended OZCHI2015 in Melbourne in December 2015 in my capacity as President of the HFESA, and came away thinking “Why haven’t I attended this conference before?” Although an Australian event, the conference attracts many international delegates, with the conference proceedings indexed in the ACM digital library.

Keynote presentations were given by Abigail Snellen (Microsoft Research UK), Elizabeth Churchill (Google, USA) and Stelarc (Performance Artist, Australia). The latter was a somewhat controversial address exploring the integration of technology into humans and ultimately what it means to be human.

Less controversial, but nonetheless extremely interesting, were the peer-reviewed oral presentations on topics including assistive technology, innovative interfaces, gaze and gesture tracking, smartphones and tablets, and the use of technology at work and leisure.

## Australia—CIE2016 conference

*Report by Jennifer Long*

The International Commission on Illumination (CIE) host a conference each year. This year the CIE2016 Lighting Quality & Energy Efficiency conference was held in Melbourne, 3-5 March 2016. Last year when I learned that this conference would be held in Australia, I immediately put the dates into my diary—afterall, it’s not often very often that this conference visits Australia.

CIE2016 surpassed all of my expectations. There was a good blend of delegates from academia, industry and government agencies and the quality of presentations and accompanying conference proceedings were excellent. The conference program was diverse and included topics related to visual ergonomics such as glare, visual perception, road lighting and photobiological effects of lighting. There were also technical presentations related to radiometry, photometry, colour, calibration and lamp specifications.

I was invited to present a workshop on visual ergonomics which attracted about 30 people. The purpose of the workshop was to discuss the content of the recently published CIE Technical Report *CIE 213:2014 Guide to Protocols for Describing Lighting*, explore how this technical report can be applied to workplace design and assessment, and discuss the challenges for communicating lighting concepts to other professionals.

**NEXT NEWSLETTER DEADLINE:  
15th AUGUST 2016**