

THE INTELLIGENT LIGHTING INSTITUTE (ILI) AND THE CENTRE FOR HUMANS & TECHNOLOGY (CHT) PRESENTED:

THEMA MIDDAG ERGONOMIE EN LICHT (IN DUTCH)

# LICHT IN BREED PERSPECTIEF – LIGHTING DESIGN FOR ALL

THIS EVENT HAS BEEN CO-ORGANIZED WITH



The Dutch association for ergonomics, humanfactor.nl, and the TU/e organizations Intelligent Lighting Institute (ILI) and the Center for Humans & Technology have co-organized a thematic afternoon on light and ergonomics with the title “Light in broad perspective – lighting design for all”. This event was held in Dutch and focused on various topics related to the ergonomics of light.

More than 70 participants signed up for this event, an outcome with which the main organizers, Reinier Hoftijzer, secretary of humanfactors.nl and Alexander Rosemann, professor building lighting were very happy with. “Our goal was to get 50 participants and we have exceeded this goal by nearly 50%.”, says Reinier Hoftijzer and continues “I am very happy to see that we have a good mix between students and researchers from TU/e, members of our organization and guests from companies.”.

After the chair of humanfactors.nl, Erwin Speklé, welcomed the guests, Paul Settels gave a keynote speech on “light barriers”. In his talk, he focussed on various effects of light on the individual and pointing out many aspects that are often forgotten in lighting design. He combined a thorough scientific foundation of visual and non-image forming effects of light with many examples that he has come across during his professional career. Alexander Rosemann presented options to apply dynamic lighting in a good manner. The goal of the talk was to provide a thematic foundation around human centric lighting for the following presentations which all focused on a selection of research topics of the Building Lighting group.

Assistant professor Mariëlle Aarts provided an overview on her research theme “Creating healthy environments – Hospitals”. She is currently carrying out various experiments on lighting conditions in hospitals. She compared the situation in a standard hospital to the conditions in a so-called healing environment – a new building concept for hospitals. It was the first time that results from this research have been presented to an audience outside the TU/e community.

In a tandem presentation on lighting in open office spaces the two PhD candidates Christel de Bakker and Juliëtte van Duijnhoven explained their research topics. While Christel de Bakker focuses on the impact of lighting control strategies on the energy consumption in open office environments, Juliëtte van Duijnhoven investigates the impact of the lighting system and control strategy on the general health and well-being of occupants.

Thijs Kruisselbrink completed the thematic afternoon with a presentation of his research topic. He has built a measurement device that allows practical measurements of the luminance distribution using affordable and readily available components. He pointed out that the luminance distribution is the key quantity to derive many of the quality

criteria for good lighting. Such a low-cost practical sensor can interact with the building management system enabling the implementation of more sophisticated control strategies.

The chair of humanfactors.nl, Erwin Specklé, was happy with the thematic afternoon: "I enjoyed listening to the talks. The speakers provided a good overview of ergonomic aspects of lighting as well as current hot topics in lighting research. I am happy that we have co-organized this event with the TU/e researchers. Our concept of having a thematic afternoon in connection with our Annual General Meeting provided additional value to our members". Alexander Rosemann, chair of the TU/e Building Lighting group, concluded: "We are very happy that we have teamed up together with the Intelligent Lighting Institute, the TU/e Center for Humans & Technology and our new friends from humanfactors.nl. I believe that all attendees got something out of this afternoon. Our research interests are to team up in public private partnerships and to tackle research questions that help solving problems. We invited the attendees from outside the campus to come and talk to us about opportunities for such collaborations."