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Stuart David
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Introduction

Illumination Optics II, as is somewhat implied by the title, was the second European illumination optics conference managed by SPIE Europe; the first being held in Glasgow, Scotland, September 2008. These European illumination conferences evolved from creative conversations between Karin Burger, SPIE Europe and Tina Kidger, Kidger Optics Associates at SPIE's Optical Systems Design conference in Jena, Germany, 2005. As is evident, they have been a success from the start and continue to be a success today. Interest in illumination optics having been on the rise for over twenty years, the subject is now a major part of optical design activity with expectations of significant continued growth from here. The organizers are appreciative, pleased and thankful to all those who contribute to these meetings. Illumination Optics II drew authors from as far away as Taiwan and Russia, while including many local contributions from continental Europe and the UK.

Noticeable within Illumination Optics II was the heightened interest in Freeform optics technology with sessions on Freeform surfaces and Freeform applications drawing large audiences. Discussions of considerable interest and excitement occurred on the theory and application of Freeform technology. Given today's enhanced facility for optical analysis and fabrication, Freeform optics is seen to be extremely fertile ground for further research and development, and we expect it to be a major player in our future illumination design conferences.

Beyond the special interest in freeform technology, it was clear that LED technology continues to be a very exciting and growing area of illumination optics. Clearly, as illumination optics has become a very important focus area for the optical community, LED technology has developed as the focal area for illumination optics sources. Two sessions on LED coupling, chaired by Julius Muschaweck of OSRAM GmbH, drew much international attention. No doubt LED's and their peripheral technologies will draw interest and R&D resources long into the future.

A "Laser and Projection" session was highlighted by subjects including anamorphic illumination, near-IR illumination, speckle and mask alignment. Although, as compared with freeforms and LED's, these are more traditional optical subject areas, activities in these areas produce results of ongoing interest and continue to gather significant audiences.

The session on "Optical Modeling," may also seem to many as a traditional subject area, but much of the advance today in optical illumination modeling deals with LED modeling and design analysis. As such, optical illumination modeling commands a growing interest and audience. We anticipate ongoing and interesting developments in optical illumination modeling to be presented in future conferences.

Our poster session included subjects on methods for color mixing, illumination evaluation, optical fiber light extraction, lighting quality for aluminum and prismatic light guides and an ultra-slim collimator. As always, we appreciate these poster papers which add an extra dimension to our conferences and allow an enhanced networking opportunity.

The R&D presented in Illumination Optics II gives an understanding of fast moving developments affecting our daily lives. It appears obvious that Freeform surfaces is opening a wide spectrum of research in the Illumination Optics field as well as other areas of Optical design. We look forward to meeting you all again at our next SPIE, European "Optical Systems Design" conference.

Tina E. Kidger
Stuart David