



Dear Sir or Madam

We kindly invite you to participate in SID Display Week taking place in San Jose, CA/USA May 14-16th, 2019. Instrument Systems will exhibit high-end measurement systems for **"Display Quality Control"**, **"AR/VR-Measurement"** and **"Display Production Testing"**. The *Society for Information Display* has selected our latest product innovation to be shown at the Innovation-Zone: We will present an ultra-high resolution model of the LumiTop, which has been developed for subpixel metrology of Micro-LEDs and OLEDs. Take advantage and discuss innovative applications for this new imaging colorimeter with our display experts onsite!

[Get a complimentary exhibit hall pass, valid also for the keynotes and the SID's I-Zone!](#)
[Just click here](#) and use the Code: **KAqZyJuS**

We are looking forward to your visit in the I-Zone and at our booth # 1528!

Your Instrument Systems Team
sales@instrumentssystem.com

\\ HIGHLIGHTS AT A GLANCE

- ▲ Subpixel metrology of MicroLED and AR/VR display applications
- ▲ CIE 2019, 29th Session in Washington
- ▲ Display Week Lectures
- ▲ Optronik News

\\ DISPLAY WEEK 2019

Subpixel metrology of MicroLED and AR/VR display applications

At Display Week Exhibition in San Jose, CA / USA from May 14 - 16 Instrument Systems GmbH will put spotlight on applications representing the major trend in the display industry: more pixels. μ LEDs are a strong candidate for the realization of very high display resolutions with pixel sizes as small as 10 μ m and equally small pixel pitches. A higher resolution means that imaging light measurement devices must advance accordingly.

Within its LumiTop series, Instrument Systems developed an ultra-high resolution camera with an extraordinary technical design and outstanding measuring portfolio for unprecedented accuracy and high speed 2D measurements. In the Innovation-Zone of the Display Week Exhibition the light measuring device will be presented in an application for display testing in production lines where tact times are extremely short.

At Instrument Systems GmbH booth #1528 the LumiTop is showcased with a head-mounted display to be measured as innovative AR/VR display application. Additionally, high-end measurement systems for quality control, automotive applications, and production testing will be presented by our light measurement experts.



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Display Week Lectures

Instrument Systems actively participates in presentations and discussions at the Display Week Symposium 2019 and presents three lectures on current topics in display metrology:

May 13 / Session 06 / 10:20-11:50 AM / Room LL21ABC
"Display Metrology: Basics, Framework, and Applications"

May 16 / Session 50.1 / 09:00-10:20 AM / Room LL20A
"Flicker from Electronic Displays: Reconsidering the Confusion"
Co-Chair: Jürgen Neumeier, Instrument Systems

May 17 / Session 83.1 / 10:40-11:00 AM / Room LL20A
"OLED vs. LC Displays - The Race toward Rec. 2020 and HDRI"

Speaker: Dr. Michael Becker, Instrument Systems

Interested in lecture abstracts?

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CIE 2019, 29th Session in Washington

The CIE is a scientific non-profit organization that provides an international forum relating to the science, technology and art in the fields of light and lighting. The CIE develops basic standards and procedures of metrology and maintains interaction with other international organizations. Instrument Systems supports the work of the CIE and is regularly active with lectures and as a sponsor at CIE conferences.

CIE 2019 29th Quadrennial Session
June 14 - 22, 2019 / Washington DC, USA

"Evaluation of Blue Light Hazard"

Speaker: Dr. Đenan Konjhodžić, Instrument Systems

Interested in lecture abstracts?

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\\ LATEST PAPER

On-the-Fly Light Measurement of Modulated LEDs with DSP 200
Instrument Systems addresses increasing demands on light measurement technology in the automotive sector: the goniophotometer AMS 5000 combined with the DSP 200 photometer offers a perfect solution for testing modulated LEDs, which today ensure a driving experience under optimum lighting conditions.



Light measurement is required for the development and production of modulated LEDs, most notably specific requirements. Automotive lighting, for example, has normal modulation frequencies in only a few hundred Hz. The LED flux is directed in half brightness is thus switched off for half the time for several milliseconds. If the light source remains stationary, the luminance intensity can be easily determined by the frequency of a single pulse. However, in order to catch measuring time the light distribution is usually not fully captured in motion. With the goniophotometer AMS 5000 the measurement system the speed of movement can reach up to 50°/s. Thus, there are measuring requests in the range of one millisecond in digital when the LED is not illuminated. Nevertheless the luminance intensity should be determined also in these positions. The modulation frequency of the LED to be measured is often not known, not infrequently and not necessarily synchronous with the selected spatial viewing angle. For this reason, Instrument Systems has developed an universal fast photometer, the DSP 200. It combines a high-speed analogue amplifier and digital signal processing. Thanks to the precise light intensity measurement of modulated LEDs, user without knowledge of these signal form. The signal processing with the DSP 200 is software-based, providing a wide range in any time and involving completion in fabric, hybrid and/or signal forms and light technologies.

Optronik Line

On-the-Fly Light Measurement of Modulated LEDs

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Complete article published on led-professional.com:

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\\ UPCOMING EVENTS - MEET US IN PERSON!

Optronik Line



Shanghai Marriott
Parkview Hotel China
24-25 April 2019

Booth



San Jose Convention
Center USA
14-16 May 2019

Booth #1528

guangzhou international
lighting exhibition

Guangzhou, China
09-12 June 2019

Booth



Washington, USA
14-22 June 2019

Lecture



Messe München
Germany
24-27 June 2019

Hall A2 Booth #215



Korea International
Exhibition Center Korea
25-27 June 2019

Booth

Questions?
Contact us!



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