

Learn How Integrating Spheres and Spectrometers Can Add Value to Your Efforts?

Optical Sensing Workshop

2010

**Choose From
These
Great Locations!**

**Stuttgart, Germany
Commundo Hotel
Wednesday
3 February 2010**

**Munich Germany
Mercure Hotel Neuperlach
Thursday
4 February 2010**

**Registration Fee
150 Euro
Lunch Provided**

**Maximum participants
50 persons**

Sponsored by:

 SphereOptics

 avantes
SOLUTIONS IN
SPECTROSCOPY

Learn design fundamentals and application methods, plus HANDS-ON workshops to discuss your optical sensing issues.

WHAT YOU WILL LEARN

SphereOptics presents –
The integrating sphere – a versatile solution in light measurement

This seminar provides information on the basic science of radiometry and photometry, including theory and design, how to specify and use an integrating sphere for measuring light sources and electronic imaging sensors and assessing measurement performance.

Avantes presents – *The Miniature spectrometer – providing affordable Solutions in Spectroscopy*

Attendees will gain a general understanding of the fundamentals of spectrometer design, and explore specific applications in radiometry and color measurements. Experts will discuss current applications and help determine how spectroscopy and optical sensing techniques may be applied to solve specific issues for customers in industry and research.

WHO SHOULD ATTEND?

The lectures and seminars are intended for scientists and engineers working in the field of optical sensing including light measurement, color measurement and spectroscopic measurement techniques.

PRACTICAL & HANDS-ON DEMONSTRATIONS

Practical demonstrations for a variety of integrating sphere measurements and spectroscopy applications such as color and LED measurements will be shown. Attendees will also have the opportunity for hands-on use of instruments. Ample time is allotted in a separate demonstration room to discuss your application with the workshop presenters.

Join Industry Experts and Learn:

- Basics of Light Radiometry and Photometry
- Basic Principles of Color Measurement
- Techniques for Spectroscopic Analysis
- Spectrometer Design and Selection

Plus How To:

- Specify an Integrating Sphere
- Select and Configure the Right Spectrometer
- Choose the Appropriate Light Source

for YOUR SPECIFIC APPLICATION!

WORKSHOP PROGRAM

**FOR WORKSHOP
SPECIFIC INQUIRIES,
PLEASE CONTACT
ONE OF THE
SPONSORS BELOW:**

Avantes BV

Soerense Zand Noord 26
NL-6961 RB Eerbeek
The Netherlands, Europe
Tel: +31-(0)-313-670170
info@avantes.com

Avantes USA

Broomfield, CO 80021
Tel: +1 (303)-410-8668
Toll free: +1 (866)-678-4248
infoUSA@avantes.com

SphereOptics GMBH

Tel: +49 (0) 7556 929 9666
infode@sphereoptics.com

SphereOptics SARL

Tel: +33 (0) 1 69 07 21 84
infofr@sphereoptics.com

SphereOptics USA

Concord, NH
Tel: 603-715-3000
Tel: 858-695-2896
sales@sphereoptics.com

TIME	EVENT	SPEAKERS
9.00	Registration	
9:30	Welcome & Introductions	
9:45	Integrating Sphere Theory & Application <ul style="list-style-type: none">• Radiometry/Photometry Terminology & Units• Diffuse Reflectance Materials & Coatings• Lamp & LED Measurement• Reflectance/Transmittance Measurement• Uniform Calibration Sources• Laser Power Measurement	Nadine Cariou Wolfgang Böhme SphereOptics
10.45	Coffee Break	
11.00	Imaging Colorimeters – a useful tool in Light Measurement	Christina Böhme SphereOptics
11.30	Solutions in Spectroscopy <ul style="list-style-type: none">• Spectrometer Design• Light Sources• Fiber Design	Ger Loop Avantes BV
12.30	Lunch Break	
13.30	Color and Irradiance	Ger Loop Avantes BV
14.00- 16.30	Hands on Training <ul style="list-style-type: none">• LED Measurement• Color Measurement• Luminance/Radiance Standards	
15.00	Coffee Break	
16.30	Wrap-up	
17.00 - 18.00	Networking and Drinks	

**Practical & Hands-on Demonstrations
from 14.00 to 16.30**

*Don't miss this opportunity for hands-on use of instruments
and to discuss your application with the workshop presenters.*