IS&T International Symposium on

Electronic Imaging 2018

SCIENCE AND TECHNOLOGY

Where Industry and Academia Meet

28 January – 2 February 2018
Hyatt San Francisco Airport, CA

Join us

EI22: FUNDAMENTALS OF SPECTRAL MEASUREMENTS FOR COLOR SCIENCE

Instructor: David Wyble, Avian Rochester, LLC (US) | **Sunday January 28**, 10:15 AM – 12:15 PM | **Course Level:** Introductory/Intermediate

Fee: Member: $175 / Non-member: $200 / Student: $65 (*prices for all increase by $50 after January 8, 2018))

This short course begins by defining the basic terms surrounding the instruments and quantities used in spectral measurements in the color field. It covers the operation and construction of spectrophotometers and spectroradiometers by discussing the function of each of the various subsystems present in the devices. Instrument standardization (calibration) and the application of CIE geometries for reflectance and transmittance are also covered. To evaluate instruments, the concepts of precision and accuracy of measurement devices are introduced along with practical suggestions for the analysis of instrument performance. The overall goal is to fully understand the procedures and concepts that lead to proper spectral measurements, the basis for colorimetric calculations.

Benefits:

- Identify the components of spectrophotometers and spectroradiometers and the functions of each.
- Define the standardization (calibration) process of spectrophotometers and understand the implications of standardization upon the measurement process.
- Interpret measurement requirements and select appropriate measurement parameters and geometries for various applications.
- Understand the point of "hand-off" from spectral measurements to colorimetric calculations.

Intended Audience: Color engineers and technologists responsible for making and interpreting color measurements of any type. A technical background is not required, although an understanding of basic scientific principles will be very helpful.

Instructor: **David R. Wyble** is president and founder of Avian Rochester, LLC. Since 2011, Avian Rochester has been delivering color standards; traditional and custom measurements; and consulting services to the color industry. Prior to founding Avian Rochester, Wyble was a color scientist within the Munsell Color Science Laboratory, at the Rochester Institute of Technology, and before that a Member of Research & Technology Staff at Xerox Corp. He holds a BS in computer science and a MS and PhD in color science from RIT and Chiba University, respectively.

SYMPOSIUM PLENARY TALKS

Monday: Overview of Modern Machine Learning and Deep Neural Networks – Impact on Imaging and the Field of Computer Vision, **Greg Corrado, co-founder of Google Brain and Principal Scientist at Google**

Tuesday: Fast, Automated 3D Modeling of Buildings and Other GPS Denied Environments, **Avideh Zahkor, Qualcomm Chair & Professor at UC Berkeley**

Wednesday: Ubiquitous, Consumer AR Systems to Supplant Smartphones, **Ronald T. Azuma, Intel Labs Researcher and Augmented Reality Pioneer**

SYMPOSIUM HIGHLIGHTS

- 18 conferences featuring 30 keynote talks by world reknown experts
- 3D Theatre
- Tours of Stanford University Labs
- Industry Exhibition
- Meet the Future: Showcase of Student and Young Professional Research
- Demonstration Session
- Poster Session
- Welcome Reception
- Women in Electronic Imaging Breakfast
- Human Vision in Electronic Imaging 30th Year Banquet

To register or learn more, visit
www.ElectronicImaging.org

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Information confirmed as of 12/06/17