



Society of Applied Spectroscopy New England Section

2018 March NESAS Meeting Announcement

When: Tuesday March 13th, 2018
5:30 – 6:30 Social Hour with Appetizer
6:30 – 7:30 Dinner
7:30 – 8:30 Presentation & Discussion

Where: **110 Grill, 116 Chelmsford Street**
Chelmsford, MA 01824
978.256.2777

Speaker: Dr. Kwok-Keung Wong
Headwall Photonics, Inc.
Bolton, MA

Title: **Applications of Hyperspectral Imaging in Remote Sensing and Machine Vision**

Abstract:

Hyperspectral imaging is a combination of spectroscopy and digital imaging, where a high resolution optical spectrum is collected for each pixel in the image. Image processing techniques can be used to perform geometric analysis of the captured imagery, and spectroscopic analyses can be applied to the spectral data for each pixel to identify or quantify materials. Hyperspectral imaging systems can be flown on aircraft for analysis of crops and forests, used in the lab for detailed analysis of materials or products, and mounted over conveyor systems for real-time analysis of food products during processing. With the lowering cost and size of today's hyperspectral imaging systems, this technology is finding use in more and more real world applications. This talk presents a few of today's applications of hyperspectral imaging, ranging from automated food sorting to remote sensing via drones.

Speaker Biography:

Kwok Wong graduated from Tufts University with a B.S.E.E. concentrating in Computer Engineering, Rensselaer Polytechnic Institute with a Master of Engineering focusing on pattern recognition, and Tufts University with a Ph.D. from the Electro-optics Technology Center working on electrochromic smart windows. He spent over 20 years at BAE Systems in Lexington developing mercury cadmium telluride and microbolometer infrared focal plane array technologies including crystal growth, materials and focal plane characterization and integration. For the past 4 years, Kwok has been with Headwall Photonics in Bolton working on Hyperspectral Imaging in their applications and engineering group integrating

hyperspectral imagers in a wide variety of applications including development of new techniques and algorithms.

Dinner Details: Attendees will be ordering and paying for their own meals from the restaurant menu. Please RSVP to Vincent Lee at vincentlee@nesas.org so that we can be sure of a headcount and the room's physical arrangement for the talk.

Cost: SAS Members \$5; non-SAS members \$10; full time students and unemployed members \$5.

Contact: Due to capacity seating limitations, an RSVP is suggested. Please contact Vincent Lee at vincentlee@nesas.org if you have questions.