

The Waterloo Institute for Nanotechnology

Industry Seminar Series



Doug Dykaar, PhD

• Founder of DifTek Lasers Inc.

High-performance backplane devices for LED video walls

Large area electronics with high performance has application in LED video walls, where no active backplane technology exists, relegating all large LED displays to passive pixel designs. Passive pixel displays are limited by higher speed requirements resulting in higher cost and smaller modules.

We have developed a composite design where single crystal Si is embedded in ceramic, resulting in high performance devices (mobility $>300 \text{ cm}^2/\text{Vs}$) in a scalable process. All the individual elements of the process are well established electronic industry standards.

Dr. Doug Dykaar is the founder of DifTek Lasers, Inc. He received the PhD in Electrical Engineering from the University of Rochester in 1987. He was a member of technical staff at AT&T Bell Labs Murray Hill, Research manager at DALSA, and Research Scientist at Thalmic/North. Doug also taught at Conestoga College in their 4-year Bachelor of Engineering Program. At last count, he had over 50 patent applications and 60 publications. His research interests span lasers to superconductivity to materials science to composite electronics.

Thursday May 30, 2019
10:00 am to 11:00 am
QNC 1501