

Friday, December 2, 2016
4:10 – 5:00 PM
Barnard/EPS 103

Blackmore Sensors and Analytics, Inc. Company and Technology
Overview: Low Cost, High Performance Lidar Systems

Dr. Randy Reibel, President (MSU Physics Ph.D.)
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<https://blackmoreinc.com/>

Abstract:

Conventional direct-detect lidar laser ranging systems have long been used with great success for static mapping tasks and 3D imaging on self-driving car prototypes. However, there are several key issues that currently limit the manufacturability and performance of direct-detect lidar sensors. Blackmore Sensors and Analytics, Inc. has developed a state-of-the-art heterodyne detection based lidar engine, and its development team has spent the last several years vetting its performance advantages. The key differentiators include 1) combined range and Doppler shift measurements, 2) single photon sensitivity, and 3) excellent obscurant penetration, among others. Blackmore plans to leverage the scalability of heterodyne detection systems in order to field the lowest cost and highest performing lidar engines on the planet. We will review the basics of lidar scanner technology and show example data from surveillance and automotive applications. We will briefly discuss our internship program, our collaborations with MSU Spectrum Lab, and provide a demonstration of our virtual reality visualization system developed by MSU Software Factory Students.

Host: Rufus Cone

***** Refreshments served in the EPS second floor atrium at 3:45 *****