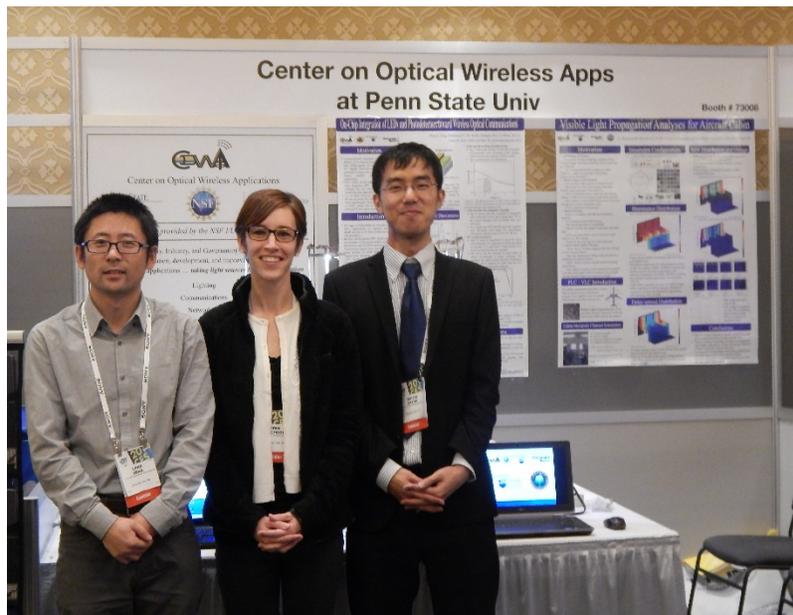


COWA in Las Vegas for the Consumer Electronic Showcase, January 6 - 10, 2014

COWA was invited by the NSF to participate in this year's [Consumer Electronic Showcase](#). Penn State sent three representatives and conducted several live demonstrations of a working video transmission link using light and a new accurate Indoor Positioning System using visible light communication (VLC) technology. The key objective in participating in the Show was to meet prospective companies and explain the benefits of becoming a COWA member, leading to new member deployment.



The system shown in the photo is for Location Based Services (LBS) using visible light communication (VLC). The LED-ID and time division multiplexing were employed for channel multi-access. Proof-of-concept experiment demonstrated that with the normal 5-Watt LED, receiver location estimation as well as 1Mbit/s image data transmission can be realized at the distance of few meters.



If LED lamps with higher power are used, positioning and data transmission can be achieved at longer distances. The system we demonstrated can be used in and benefit many indoor environments, such as: future manufacturing plants, shopping malls, super markets, airports, museums, libraries and hospitals.

See the report by Rachel Horn, Manager, Publications, Consumer Electronics Association:

[Academia Tech Debuts at CES!](#)