Industrial Affiliates Conference Electrical and Computer Engineering University of California, Davis April 24th, 2015

AGENDA

10:00 a.m. - 10:45 a.m. Continental Breakfast and Registration - Kemper Hall Lobby

10:45 a.m. - 11:00 a.m. **Chair's Welcome** - 1065 Kemper Hall

Professor Kent Wilken

Faculty Presentations - 1065 Kemper Hall

11:00 a.m. - 11:30 a.m. "2D and 3D Photonic Integrated Circuits for Future Communication,

Computing, and Imaging System Applications"

Professor S. J. Ben Yoo

Abstract: We will discuss heterogeneous 2D and 3D photonic integration technologies to realize electronic-photonic-integrated-circuits (EPICs) for future chip-scale microsystems. Future prospects and challenges in computing, networking, and imaging applications will also be discussed.

11:30 a.m. - 12:00 p.m. "Atomically Sharp Ceramic and Semiconductor Blades for Surgery and Hair-removal Applications"

Professor M. Saif Islam

Abstract: This talk will present ongoing research on atomically sharp, rust-proof ceramic and semiconductor blades with multi-dimensional self-cleaning cutting-edges, integrated sensors and micro-fluidic channels to offer unprecedented surgery and hair-removal solutions. Such technologies are enabled by highly matured, inexpensive, high-throughput micro and nano-fabrication technologies and have a significant performance and price advantage compared to their commercially available counterparts.

12:00 p.m. - 1:15 p.m. **Lunch** - 1127 Kemper Hall

1:15 p.m. - 2:15 p.m. **Fast-Forward Presentations** - 1127 Kemper Hall

2:15 p.m. - 3:45 p.m. **Poster Session** - Kemper Hall Lobby

The poster session will give an overview of the exciting research going on in the department. In order to give you a quick glimpse of the posters, all presenters will describe their posters in a "fast forward" style. We plan to have a monetary awards for outstanding posters for undergraduate and graduate-level research projects. We ask you to rank the posters using the score sheets to be handed out.

3:45 p.m. - 5:00 p.m. **Open Research Labs**

5:00 p.m. **Reception** - Kemper Hall Lobby