IEEE **TENCON 2014**
Bangkok, Thailand

Tutorial Sessions: *October 23, 2014*

LED-SmartCoN

ECTI Association
INFORMATION

(15:00-16:00)

"Tutorial 1": Optical Wireless Communications: Challenges and Perspectives

Prof. Anh T. Pham

Computer Communications Lab,

University of Aizu, Japan

Chair: Piya Kovintavewat/ Preecha Kocharoen

(16:00-17:00)

"Tutorial 2": The language of lighting design

Dr.Chanyaporn Chuntamara)

Lighting Research and Innovation Centre (LRIC),

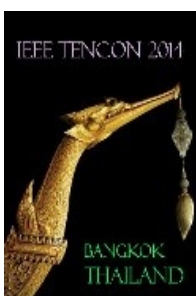King Mongkut's University of Technology Thonburi, Thailand

Chair: Wannaree Wongtrairat/ Preecha Kocharoen

Optical wireless communications (OWC) is the technology that allows transmitting data using optical signal over wireless connections. Growing fast over the past decade or so, OWC has emerged as an important method for wireless data transmission especially for the indoor applications, especially when the white light emitting diode (LED) device has been well utilized in existing and future home and office environments. OWC offers good advantages compared to radio frequency (RF) communications including free license, wide bandwidth and no interference where the last one suggests that OWC and RF technologies can be co-existed to provide much higher capacity and reliability to the users. This tutorial introduces the basic of the OWC technology, its challenging issues and recent research & development activities.

Beyond the basic function of illumination that allows us to see, the design of lighting communicates visual information and influence psychological responses and emotions. In addition, the non-visual effects of light or circadian rhythm has gained significance in the last decade due to the discovery of a third class of photoreceptor and its potential effects on health and well-being. This session introduces contemporary roles of lighting in architecture and the design language employed to 'communicate' with building users. It also discusses the potentials and challenges arise from the emerging LED technologies, which seem to offer more flexibility and sustainability promises. Finally one of lighting design tools - a lighting simulation software Dialux, is demonstrated.

Register for **free** ticket, email to *Bancha.Shemue@gmail.com*
Venue: Room A: The Garden Gallery, Chagri-La Hotel, Bangkok
Full details and Tutors's Biography at *www.tencon2014.org/?page=tutorial*

LED-SmartCoN.org

TCEB THAILAND CONVENTION & EXHIBITION BUREAU

IEEE THAILAND SECTION

IEEE Advancing Technology for Humanity

(Updated: Sep 28, 14 :Q-Ti 1/ 2014)

www.facebook.com/VisibleLightThailand