

# INTERNATIONAL SYMPOSIUM ON LIGHT AND LIFE

## Half-Day Pre-Symposium Workshop Technology of Light Emitting Diodes (LEDs)

13<sup>th</sup> October 2015

COMSATS Institute of Information Technology (CIIT), Islamabad

### Introduction:

Light-Emitting Diodes (LEDs), compact high-efficiency solid-state light sources are of considerable technological interest covering a wide range of applications including alternate lighting sources compared to large, toxic, low-efficiency mercury lamps. LEDs employ cold light generation delivering most of the energy in visible spectrum without wasting energy in the form of heat. With the recent advances in efficiency, output power, and broad spectral coverage (white light), commercial sector is increasingly adopting LEDs- in mobile phones, LCD displays, automobiles, house-hold and street lights. Novel materials and device architectures combined with increasingly sophisticated manufacturing processes promise low-cost efficient sources.

The main focus of the workshop will be on Material and Device Aspects of Light Emitting Diodes including Organic Light Emitting Diodes (OLEDs). The following topics will be particularly emphasized:

- Fundamental Physics, Modeling, Simulations and Optimization of LEDs and OLEDs
- Novel technologies for LEDs and OLEDs design and fabrication

### Who should attend?

Graduate and advanced under-graduate students, faculty members, researchers, and engineers are highly encouraged to attend.

### Contact Persons

Duly filled-in registration form may please be sent as email attachment to: [lightandlife2015@comsats.edu.pk](mailto:lightandlife2015@comsats.edu.pk). Any other queries and correspondence may be addressed to:

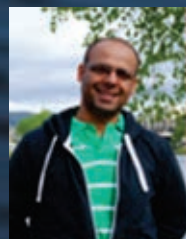
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### Resource Persons

**Dr. Khizar Bhutta**, Lead Scientist at Whirlpool Corporation (USA), received his PhD degree from Center for Optoelectronics and Optical Communication, University of North Carolina, USA, in 2006. His areas of expertise are elemental Si-, Ge-based structures and III-Nitrides photonic devices for their design, process flow development, modeling and simulation, advance fabrication, flip chip packaging and characterization.



**Dr. Muhammad Umair Hassan**, Assistant Professor of Physics at COMSATS Institute of Information Technology, Islamabad, received his PhD degree from University of Cambridge, UK in 2012. He has worked on ionic liquid gated transistors and organic light emitting devices at Optoelectronics group led by Prof. Sir. Richard Fried. He has five year experience on integrated fiber optic devices while working at Advanced Engineering Research Organization (AERO), Wah, Pakistan.



**No Registration Fee**

**Time: 13:30 – 17:00**

