Physical Research Laboratory, Ahmedabad

Public Lecture

Speaker: **Prof. B. M. Azizur Rahman**

Professor, City University, London

Title: **" Photonics: From its emergence to becoming a Key Enabling Technology"**

Time: **Friday, 16 February 2018, 17.00 hrs.**

Venue: **K. R. Ramanathan Auditorium, PRL**

Abstract

Photonics manipulates photon or light, and thus consider its generation, detection and processing for various applications. Its emergence has been marked with the invention of semiconductor lasers and optical fibres. Initial research focus was its application in high speed communications and thus benefitted from the invention of erbium doped fibre amplifiers and wavelength division multiplexing. However today, it has a range of very important applications, such as data storage, display, material processing, healthcare applications, optical sensing, and illumination beside its original focus on high data rate communications. In the new Horizon 2020, Photonics has been identified as the Key Enabling Technology with its likely impact to shape the overall technologies for this century which will be discuss in this talk. Following that, this talk will focus a bit on the prospect and challenges of silicon photonics, an emerging area of photonics research and will present some results in this area, arising from research in this field.

The Speaker

Prof. B. M. Azizur Rahman completed B. Sc. Eng (1976) and M. Sc. Eng. (1979) in Electrical Engineering from Bangladesh University and Technology (BUET). He was awarded with a Commonwealth Scholarship to study for a PhD degree in UK, 1979. He received his PhD degree (1982) in Electronics from University College, London. He joined City University, London, as a lecturer in 1988 and became a full Professor in 2000 at City University, he leads the research group on Photonics Modelling, specialised in the development and use of rigorous and full-vectorial numerical approaches to design, analyse and optimise a wide range of photonic devices, such as spot-size converters, high-speed optical modulators, compact bend designs, power splitters, polarisation splitters, polarisation rotators, polarization controllers, SBS, terahertz devices, etc. He has published more than 550 journal and conference papers, and his journal papers have been cited more than 4400 times. He has supervised 29 students to complete their PhD degrees as their first supervisor. Prof. Rahman is Fellow of the IEEE, Optical Society of America and the SPIE.

High Tea at 18:00 hrs.

ALL ARE WELCOME