

Underwater optical communication: A complementing undersea wireless technology

Date: Tuesday, 19th Mar.

Time: 1:10 pm

Location: Building 59, Room 2016

Speaker:

Dr. Mohammed Zahed

Assistant Professor

EE Department, KFUPM

Abstract:

There has been growing interest in investigating underwater environment of seas and oceans for multitude of applications including study of marine life, climate change, monitoring of oil rigs and pipes, optical fiber cables, oil and gas exploration, surveillance, unmanned operations, etc. Hence, a medium that facilitates high speed to communicate between underwater and outside world is essential. Presently, the underwater wireless communication system is established with acoustic and radio frequency technologies and very recently optical wireless communication have attracted much attention as a complementing underwater communication system. In this talk, an overview of this new-class of underwater optical wireless communication (UWOC) will be presented while summarizing some of the recent research accomplishments in this area including our group's work.

Bio:

Dr. Mohammed Zahed Mustafa Khan received PhD degree in Electrical Engineering from King Abdullah University of Science and Technology (KAUST), Saudi Arabia, in 2013, and was SABIC postdoctoral research fellow in the Photonics Laboratory, KAUST, from 2014-2015. He is currently an Assistant Professor in Electrical Engineering Department at KFUPM. He has contributed significantly towards the development of novel broadband quantum-dash semiconductor lasers and superluminescent diodes. Presently, his research focus is on the development and applications of high quality visible and near infrared lasers for visible light communication and optical access networks, respectively. Dr. Khan is a senior member of IEEE.