PHARAD
Antennas, Photonics, & RF Communications

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Pharad's Vice President Dalma Novak to Give Short Course at OFC 2012

Glen Burnie, MD — February 2, 2012– Dalma Novak, Vice President of Pharad, will be giving a short course at the OFC/NFOEC Conference in Los Angeles, CA in March.

SC217 Hybrid Fiber Radio – The Application of Photonic Links in Wireless Communications

Sunday, March 4, 2012
5:00 PM - 8:00 PM

Instructor: Dalma Novak, PhD; Pharad, LLC, USA

Level: Advanced Beginner (basic understanding of topic is necessary to follow course material)

Description:
The use of photonic links for the transport and distribution of radio signals in wireless networks is becoming increasingly pervasive. Applications where such hybrid technology is employed include backhaul solutions for mobile networks; indoor distributed antenna systems; as well as integrated fixed and mobile broadband and ultrabroadband networks capable of providing users with very high bandwidth services.
This short course presents an overview of the application of photonic links in wireless communication networks. The associated system architectures and signal transport technologies that enable the implementation of integrated wireless and wireline (optical) networks will be discussed. The various technical challenges and issues that must be addressed for the successful integration of these networks, which encompass very different requirements and specifications, will also be presented. Topics to be covered include:

- Integrated optical/wireless network architectures
- Requirements and challenges for the development of hybrid fiber radio systems
- Relevant technologies and implementation approaches

Benefits:

- Understand the motivation for the integration of wireless communication systems with optical fiber networks;
- Identify the technical challenges related to the application of photonics and optical networking concepts to wireless communications;
- Understand and compare physical layer technologies that enable the integration of wireless and optical networks;

- Identify technologies that can improve the performance of integrated optical and wireless networks;
- Establish the trade-offs with alternative integrated network architectures

Audience:
This is an intermediate course for people working in telecommunication related areas who wish to broaden their knowledge and learn how optical networks are being integrated with wireless communications or find out the current status of this multidisciplinary field.