

Foreword about Jiri Vodrazka, Vice-Head of the Department of Telecommunication Engineering, Czech Technical University in Prague:

Jiri Vodrazka was born in Prague, Czech Republic in 1966. He joined the Department of Telecommunication Engineering, FEE, CTU in Prague in 1996 as a research assistant and received his Ph.D. degree in electrical engineering in 2001. He has been the head of the Transmission Media and Systems scientific group since 2005 and became Associate Professor in 2008. He participates in numerous projects in cooperation with external bodies. Currently he acts also as vice-head of the Department. He is a guarantor of studies in the field of Electronic communication networks at CTU FEE in Prague. He is also a member of the editorial boards of several journals and conference committees of international scientific conferences.



Jiri Vodrazka

Dear readers,

First and foremost, allow me to say a few words about the OK 2011 conference from which interesting topics for the Advances in Electrical and Electronic Engineering special edition were selected. The 23rd Conference and Exhibition on Optical Communications 2011 (OK 2011) was organized by the Czech and Slovak Society for Photonics, Faculty of Electrical Engineering of the Czech Technical University in Prague and Action M Agency. It was held in the capital of the Czech Republic – Prague on October 20 and 21, 2011. In the Scientific section of the OK 2011 conference, the 17 contributions from four areas were presented: optical technologies and components, optical systems and networks, free space optics and optical sensors.

In the third decade, the conference continues the successful editions of OK conferences established by pioneer Czech optical researchers in mid-eighties. The main objective is to offer an international forum for the exchange of new ideas, thoughts, and realizations on physics, technologies, and applications of optics. Even though it is impossible for the conference to cover the entire area of optical communication technology as it is intensively developing these days, it tries to focus on vivid topics of the theory and applications that have significant impact on our society's everyday life. Traditionally, the conference offers an excellent opportunity for young scientists to present their recent research results. This year's conference, the 24th Conference and Exhibition on Optical Communications (OK 2012) will be held in Prague on October 25 and 26, 2012.

In my opinion, the optical communication is the most perspective area of telecommunication. Now, the interface for Ethernet with bit rate 100 Gbps is standardized. After few years, the development of interface for bit rate 1 Tbps will can be expected. This will make it possible to create the super speed optical transmission system 1 Pbps (Peta-bits per second, $1e^{15}$ bps) with using extra multi-channel DWDM (Dense Wavelength Division Multiplex). Of course, that while the issues of increase of transmission speed will be developed, the fully optical switching and routing will must be settling. And the conference Optical Communications in this year will be focused just on the area of optical switching and routing.

Before I conclude, I would like to express my respect to the OK conference team and Advances in Electrical and Electronic Engineering journal team for the work they do and to wish them a great deal of high quality articles and reviews in the future.