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PROCEEDINGS OF SPIE

Optical Metro Networks and Short-Haul Systems II

**Werner Weiershausen
Benjamin Dingel
Achyut Kumar Dutta
Atul K. Srivastava**
Editors

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Introduction

It is our great pleasure to welcome you to the Optical Metro Networks and Short-Haul Systems II conference in the framework of the SPIE Photonics West OPTO 2010 symposium. It is one out of four conferences on optical communications with the focus on telecommunication networks, transmission systems, optical sub-systems, and components. The other three conferences comprise topics on broadband access and free-space laser communication, optoelectronic interconnects, and component integration.

The Optical Metro Networks and Short-Haul Systems II conference covers a large variety of basic topics such as metro network architectures, physical and protocol layer based technologies, telecommunication service enablers at component, and system level. It comprises technical and techno-economic considerations.

The focus is not on ULH transmission but on metro and short haul networks which are of increasing importance as their large-scale network element deployment offers a huge potential for future cost reduction in the domains of capital and operational expenditures and energy efficiency optimization. Although ULH is not the primary focus of this conference and proceedings edition, a lot of important innovative technologies are discussed here that many people know from optical long haul fibre transmission. This is quite consequential as the domains and technologies of short haul/metro and long haul are growing together more and more these days. Robust fiber transmission and wavelength division multiplexing approaches, new modulation formats and equalizer schemes, and other innovations known from the long haul field will urgently be needed in future metro/short haul network domains due to today's dramatic increase of bandwidth and bitrate speed demands.

We expect this conference to continue as a lead venue in sharing new technical advances and bringing innovative integrated approaches that address key issues in WDM transmission systems and optical networks for short haul and metro domains.

Finally, we express our strong appreciation to the authors of all the contributed and invited papers, the technical program committee members, the session supporting professionals, and the SPIE staff who made this conference possible and enriching. The success of this conference is strongly due to them.

Thank you for joining us at the Optical Metro Networks and Short-Haul Systems II conference of the SPIE Photonics West OPTO 2010 symposium

**Werner Weiershausen
Benjamin Dingel
Achyut Kumar Dutta
Atul K. Srivastava**