Tu3B.3 • 17:45

Demonstration of 352 Gbit/s Photonically-enabled D-Band Wireless Delivery in one 2x2 MIMO System

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First demonstration of photonically enabled independent side-bands D-Band wireless transmission up to 352 Gbit/s with a BER below 3.8×10-3. These results were achieved by means of advanced DSP and antenna polarization multiplexing (2x2 MIMO).

Tu3B.5 • 18:15

Single Channel 106 Gbit/s 16QAMWireless Transmission in the 0.4THz Band

Xiaodan Pang1, Shi Jia2,5,Oskars Ozolins1, Xianbin Yu3, HaoHu2, Leonardo Marcon4, PengyuGuan2, Francesco Da Ros2, SergeiPopov4, Gunnar Jacobsen1, MichaelGalili2, Toshio Morioka2, Darko Zibar2,Leif K. Oxenlowe2; 1 NETLAB, Acreo Swedish ICT, Sweden; 2 DTU Fotonik, Technical Univ. of Denmark, Denmark; 3 College of Information Science and Electronic Engineering, Zhejiang Univ., China; 4 School of ICT, KTH Royal Inst. of Technology, Sweden; 5 School of Electronic Information Engineering, Tianjin Univ., China.

We experimentally demonstrate a singlechannel 32-GBd 16QAM THz wireless link operating in the 0.4 THz band. Post-FEC net data rate of 106 Gbit/sis successfully achieved without any spatial/frequency multiplexing.

W4F.5 • 16:30

Multi-core Fibers in Submarine Networks for High-capacity Undersea Transmission Systems

Md. Nooruzzaman1, Toshio Morioka1; 1 Technical Univ. of Denmark, Denmark.

Application of multi-core fibers in undersea networks for high-capacity submarine transmission systems is studied. It is demonstrated how different architectures of submerged branching unit affect network component counts in long haul undersea transmission systems.

Th1H.2 • 08:15

Single-Mode 37-Core Fiber with a Cladding Diameter of 248 µm,

Yusuke Sasaki1, Katsuhiro Takenaga1, Kazuhiko Aikawa1, Yutaka Miyamoto2, Toshio Morioka3; 1 Advanced Technology Laboratory, Fujikura Ltd., Japan; 2 NTT Network Innovation Laboratories, NTT Corporation, Japan; 3 Department of Photonics Engineering, Technical Univ. of Denmark, Denmark.

A heterogeneous single-mode 37-core fiber with a cladding diameter of 248 µm is designed and fabricated. The fiber provides the highest core count and low total-crosstalk less than -20 dB/1000 km in C+L band.

Th4I.5 • 16:45

Regeneration of Phase Unlocked Serial Multiplexed DPSK Signals in a Single Phase Sensitive Amplifier

Pengyu Guan1, Francesco Da Ros1, Niels-Kristian Kjøller1, Hao Hu1, Kasper M. Røge1, Michael Galili1, Toshio Morioka1, Leif K. Oxenlowe1; 1 Technical Univ. of Denmark, Denmark.

We demonstrate phase-regeneration of phase unlocked OTDM-DPSK serial signals in a single phase sensitive amplifier through optical cross-phase modulation. The BER of an 8×10 Gbit/s OTDM-DPSK signal is improved by 2 orders of magnitude.