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# FOREWORD

## Special Section on Opto-electronics and Communications for Future Optical Network

In order to support the continuous growth of data traffic by approximately 40%/year, triggered by high speed internet, smart phones and so on optical fiber communication systems have been contributing to the society for long time. The importance of the optical fiber communication gave an opportunity to hold the international conference named "Optoelectronics and Communications Conference (OECC)". The 18th OECC in 2013 was held in Kyoto, co-located with 10th Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR) and Photonic Switching 2013.

The optical devices apparently play an important role to support the intelligent fiber optic systems, which require improved device characteristics, less power consumption and so forth. The following four categories are discussed; 1) Semiconductor active optical devices 2) Optical passive devices and modules 3) Silicon Photonics Platform 4) Optical signal process, display, and storage.

This joint special section with IEICE Transaction on Communications, is organized to provide an overview of the key topics which were discussed at the CLEO-PR & OECC/PS 2013. In this special section on devices, we have 12 papers in total, including 4 excellent invited papers. I would like to appreciate to all the authors for their contributions to the special section. I sincerely thank to the editorial committee members and reviewers for organizing this special section.

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***Akihiko Kasukawa*** *(Member)* received B.S, M.S and Ph.D. degrees in electrical engineering all from Tokyo Institute of Technology. In 1984, he jointed Furukawa Electric Co., Ltd. At Furukawa, he has been engaged in R&D of long wavelength semiconductor lasers. From 1990 to 1991, he spent one year at Bell Communications Research (Bellcore) Inc., Red Bank, NJ as a visiting researcher. He received the Achievement award from IEICE for the development of high power lasers and their modules for EDFA applications in 2001. He is now a Research Fellow and General Manager of semiconductor R&D center. Dr. Kasukawa is a Fellow of the IEEE, Japanese Society of Applied Physics (JSAP) and the IEICE of Japan.