
FOREWORD

Special Section on Distinguished Papers in Photonics

The science and technology of photonics allows the sustainable growth of our community with technological advances of systems and components in communications, data storages, sensing, imaging, displays, biomedical diagnostics, and so forth. The research subjects in the photonics arena, thereby, attract ever-growing interest of scientists and engineers in a wide range of technological fields. In the IEICE technical-committee meetings and annual conferences, an extensive number of papers have been devoted to theoretical and experimental studies on photonics, where young researchers and graduate students played significant roles in performing research of excellent technical quality. Inspired by such the activity in photonics in IEICE, this Special Section has been organized to encompass distinguished technical papers produced with significant contribution of young researchers and graduate students working on photonics. Our intention with respect to the Special Section is to stimulate further enthusiasm on photonics in IEICE.

In this Special Section, thirteen distinguished papers have been nominated and produced based on the papers, for which student awards or young-researcher awards were presented in the technical meetings and the annual conferences in Society years 2014 – 2016, according to the recommendation by Technical Committees of Optoelectronics (OPE) and Laser and Quantum Electronics (LQE). One distinguished paper has been produced after the keynote presentation commemorating Electronics Society Award 2015. The other distinguished papers were nominated from the invited papers delivered in the OPE and LQE technical meetings in the same period. The technical contents of the distinguished papers have been extended substantially, embracing the latest progress in the forefront of photonics research to envision its prospect. A broad range of technological categories from fundamental studies to practical applications in photonics have been covered in the light of this Special Section unlike other Special Sections in the past volumes, which focused on specialized technological category.

As Guest Editor-in-Chief of this Special Section, I express my sincere gratitude to all the authors, reviewers, and editorial committee members for their contribution to the publication of this Special Section. I also appreciate deeply the support of IEICE publication office to administration and scheduling in paper solicitation and manuscript review processes. This Special Section organized along with the innovative concept will not come into a reality without their contribution and support.

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Kensuke Ogawa (Tokyo Tech), Guest Editor-in-Chief

Kensuke Ogawa (*Member*) received the Ph. D degree in physics from Osaka University in March 1987. In April 1987, he joined Central Research Laboratory, Hitachi Ltd., where he conducted research and development of semiconductor photonic devices. From April 1992 to Sept. 1994, he was Senior Researcher in Hitachi Cambridge Laboratory, UK, and initiated ultrafast electro-optic study on nanometer-scale electron transport in quantum semiconductor structures using ultrashort pulse lasers. In July 2006, he moved to Optics and Electronics Laboratory (later reorganized as Advanced Technology Laboratory), Fujikura Ltd. as Chief Researcher. After having consulted for Huawei Technologies Japan in Sept. – Oct. 2017, he is performing research and education at Tokyo Institute of Technology as Specially Appointed Professor from Nov. 2017. His current research subjects include photonic and magneto-optic devices on integrated photonics platforms, optical metrology for sensing, and performance monitoring in optical-fiber communication. He served as Chair of Ultrafast Optoelectronics (UFO) Technical Committee in Feb. 2015 – Jan. 2017 and of Optoelectronics (OPE) Technical Committee in May 2016 – April 2017.

