

Commission D (Electronics and Photonics) Activity Report

October 2017 - June 2018

June 30, 2018

Hiroyuki Toda

1. Commission Activities

The 24th committee members were approved. The members are Dr. Hiroshi Ishihara, Honorary Professor of Tokyo Institute of Technology, Prof. Yasuo Kokubun, Yokohama National University, Prof. Kazuo Hotate, Toyota Technological Institute, Prof. Naoki Shinohara, Kyoto University, Prof. Masayuki Izutsu, Waseda University, Prof. Hiroshi Ito, Kitazato University, Prof. Katsumi Iwatsuki, Tohoku University, Prof. Yohtarō Umeda, Tokyo University of Science, Prof. Taiichi Otsuji, Tohoku University, Prof. Kenichi Kasahara, Ritsumeikan University, Prof. Yuichi Kado, Kyoto Institute of Technology, Prof. Katsutoshi Tsukamoto, Osaka Institute of Technology, Prof. Hiroyuki Toda, Doshisha University (Chair), Prof. Tadao Nagatsuma, Osaka University, Prof. Masayuki Fujita, Osaka University, Dr. Masamichi Fujiwara, NTT Corp., and Prof. Naoto Yoshimoto, Chitose Institute of Science and Technology.

2. International Activities related to areas covered by Commission D

PIERS 2018 Toyama: 6 members contribute to organizing the conference. Prof. Yasuo Kokubun and Prof. Kazuo Hotate are Local Organizing Committee members. Prof. Naoki Shinohara is a Local Steering Committee member. Prof. Hiroyuki Toda is a Local Technical Program Committee member, and a Co-Chair of Subcommittee SC3: Optics and Photonics. Prof. Tadao Nagatsuma is a Co-Chair of Technical Program Committee, Chair of Local Technical Program Committee, Secretary: Technical Program of Local Steering Committee, a Co-Chair of Young Scientist Program Committee, and a Subcommittee member of SC3: Optics and Photonics. Prof. Masayuki Fujita is a Secretary of Local Technical Program Committee, and a Subcommittee member of SC3: Optics and Photonics

3. Domestic Activities related to areas covered by Commission D**Technical Committees on Microwave Photonics (IEICE):**

The following technical meetings were held. On November 9 at Tokyo, two invited talks related on surface acoustic wave optomechanics, and low-temperature solid-state bonding for high-density LiNbO₃ optical device packaging, and four regular talks were presented. On January 25 and 26 at Himeji, three invited talks related on radio-over-fiber technologies: ITU-T standard activities, railway applications, and 60-GHz mobile terminal localization, and seven regular talks were presented. On May 18 at Tokyo, two invited talks related on assessment for radio protection for advanced wireless systems, and THz-vector network analyzers, and three regular talks were presented. Prof. Naoto Yoshimoto is a Co-Chair. Prof. Masayuki Izutsu, Prof. Hiroshi Ito, and Prof. Hiroyuki Toda are members. Prof. Tadao Nagatsuma, Prof. Katsumi Iwatsuki, Prof. Katsutoshi Tsukamoto, and Prof. Yuichi Kado are Advisory members.

IEICE General Conference:

IEICE General Conference was held on March 20 - 23, 2018 at Tokyo. A Symposium on THz technology and its system applications was held. 8 invited talks related on THz electric field detection using ultra-short laser pulses, traveling wave tube for THz source, THz imaging systems, Si CMOS ICs for 300-GHz band wireless communication, broadband and low noise THz detection by Fermi-level managed barrier diode, influence investigation of THz waves to living organisms by using THz gyrotron and THz time-domain spectroscopy, THz down converter by electro-optic sampling, and radio regulations on spectrum in 275-450 GHz were presented. Prof. Hiroshi Ito was presented in the symposium. Microwave and mm-wave photonics session (C-14) was held and 14 regular talks related on radio-over-fiber, 300-GHz and 600-GHz wireless communication and imaging technology, optical modulators, and other topics were presented.