

The 2nd Biomedical Imaging and Sensing Conference (BISC '16)



Toyohiko Yatagai

Conference Chair

Center for Optical Research and Education,
Utsunomiya University

We are delighted that the 2nd Biomedical Imaging and Sensing Conference in Yokohama is going to open successfully, within the framework of the OPTICS & PHOTONICS International Congress (OPIC 2016). In biomedical optics and photonics, optical tools are employed for the understanding and treatment of diseases, from the cellular level to macroscopic applications. At the cellular level, highly precise laser applications allows the manipulation, operation or stimulation of cells, even in living organisms or animals. Optical microscopy has been revolutionized by a thorough understanding of the different markers and their switching behavior. Maker-free microscopy, like CARS, SHG or THG-microscopy is spreading into multiple biological and clinical imaging applications. OCT is continuously broadening its clinical applicability by even higher resolution, higher speed and more compact and the use of Doppler and polarization sensitivity for functional imaging.

In the field of optics and photonics, biomedical imaging and sensing areas are most quickly progressing and expanding. Techniques developed in these areas could bring us great steps in advances of physical, engineering and biological knowledge as well as optics and photonics technology. This Conference aims at covering several aspects from the fundamental studies at cellular level to clinical applications of various optical technologies.

Finally we hope the 2nd Biomedical Imaging and Sensing Conference contributes to the progress in this fields and we hope you enjoy fruitful discussions in the Conference.