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Editors

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Introduction

This proceedings volume is a collection of papers based on the invited and contributed presentations at the ODS 2019: Industrial Optical Devices and Systems conference held on 11-12 August 2019 at the San Diego Convention Center as part of the SPIE Optics + Photonics 2019.

The ODS conference had been held as a stand-alone conference since 1973 to 2012 and has been held as part of larger conferences since 2013. This was the sixth time ODS was held as part of SPIE Optics + Photonics. Formerly, the main topic of this conference was Optical Data Storage. However, in 2018, the scope of the conference was extended to include Industrial Optical Devices and Systems and to discuss the possibility of applications of optical technologies to emerging industrial domains such as intelligent cars, IoT, big data, healthcare, security, etc. In 2019, the new scope has been highlighted and brought to the forefront.

ODS 2019 was a successful conference. A total of 18 papers (7 invited papers, 9 contributed oral papers, and 2 contributed poster papers) were presented. In the morning oral sessions, there were nice presentations about new developments in technologies for future optical data storage systems such as nano-photonics, holography, etc. Moreover, in the afternoon oral sessions, there were interesting presentations about optical technologies for intelligent cars such as LiDARs, head-up displays, etc. We would like to emphasize that the conference was well attended especially in the afternoon oral sessions as it was in 2018.

We are very happy that a total of nine papers are included in this proceedings volume. They represent important and interesting achievements in the current field of optical data storage and industrial optical devices and systems. We hope that the readers find this proceedings volume stimulating and exciting, as well as helpful for their future research and development.

We look forward to having ODS 2020 as part of the SPIE Optics + Photonics 2020. To keep the ODS active, we will continue to encourage contributions about the new scope.

Finally, we would like to express our sincere gratitude to the committee members, session chairs, and all of the presenters and attendees of ODS 2019 as well as the SPIE staff for their contributions.

Ryuichi Katayama
Yuzuru Takashima

