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Front Matter: Volume 9655

, "Front Matter: Volume 9655," Proc. SPIE 9655, Fifth Asia-Pacific Optical Sensors Conference, 965501 (20 July 2015); doi: 10.1117/12.2203414

SPIE.

Event: Fifth Asia Pacific Optical Sensors Conference, 2015, Jeju, Korea, Republic of

PROCEEDINGS OF SPIE

Fifth Asia-Pacific Optical Sensors Conference

Byoung-ho Lee
Sang Bae Lee
Yunjiang Rao
Editors

20–22 May 2015
Jeju, Korea, Republic of

Organized by
Optical Society of Korea (Korea, Republic of)

Published by
SPIE

Volume 9655

Proceedings of SPIE 0277-786X, V. 9655

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Fifth Asia-Pacific Optical Sensors Conference, edited by Byoung-ho Lee, Sang-Bae Lee,
Yunjiang Rao, Proc. of SPIE Vol. 9655, 965501 · © 2015 SPIE
CCC code: 0277-786X/15/\$18 · doi: 10.1117/12.2203414

Proc. of SPIE Vol. 9655 965501-1

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Author(s), "Title of Paper," in *Fifth Asia-Pacific Optical Sensors Conference*, edited by Byoung-ho Lee, Sang Bae Lee, Yunjiang Rao, Proceedings of SPIE Vol. 9655 (SPIE, Bellingham, WA, 2015) Article CID Number.

ISSN: 0277-786X

ISBN: 9781628418651

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

SPIE.org

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The CID Number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages.

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Introduction

The Fifth Asia-Pacific Optical Sensors Conference (APOS 2015) was held 20–22 May 2015, at the Lotte City Hotel Jeju in Jeju, Korea.

APOS 2015 continues a series of conferences that are intended to provide a central forum for an update and review of technical information covering a wide range of optical sensing fields—from fundamental research to systems and applications. The conference is open to researchers and professionals from the Asia-Pacific Rim as well as all regions of the world.

Since the first event held in Chengdu, China in 2008, APOS has become the key regional forum in this field and where an international collection of researchers and industry colleagues could get together to discuss and develop mutual collaborations. It is also the place where we can train the next generation of young researchers and leaders.

APOS 2015 was initiated to provide an open forum discussing state-of-the-art scientific and technological achievements in optical sensors, leading to future industrial applications. The conference included the following topics: Physical Sensing; Chemical and Gas Sensing; Biological/Biomedical Sensing and Imaging; Integrated Technologies for Sensing; Specialty Optical Fibers for Sensing; Grating and Component Technologies for Sensing; Novel Materials for Sensing, Distributed, Multiplexed and Networked Sensing; Environmental and Structural Monitoring; and Industrial Applications, Field Trials and Standardization. Many of the submitted papers described recently developed optical sensors. Sharing the research achievements from this conference will benefit the international scientific community.

This volume contains reviewed papers presented at APOS 2015; a total of 151 papers were selected among 181 submitted abstracts, including three plenary talks, 78 oral presentations, and 100 poster presentations covering 18 sessions. This work was supported by the Korean Federation of Science and Technology Societies Grant funded by the Korean government.

The committee chairs would like to express their sincere thanks to the organizing committee members, program committee members, international steering committee members and also all sponsoring and supporting organizations that offered essential support to the success of APOS 2015.

**Byoung-ho Lee
Sang Bae Lee
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