## PROCEEDINGS OF SPIE

# Optics and Photonics for Information Processing VIII

Abdul A. S. Awwal Khan M. Iftekharuddin Mohammad A. Matin Andrés Márquez Editors

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#### Introduction

This year in San Diego, California, we held the eighth conference of Optics and Photonics for Information Processing. Like last year, the conference attracted very interesting papers in a wide number of areas, such as LEDs, biophotonics, and morphology; optical imaging; real-time systems application; holographic systems and SLMs; neural networks and algorithms; quantum computing and silicon devices; quantum noise and optical interconnects; correlation filters; and transforms and image enhancement. This conference track was preceded by an invited Signal, Image and Data Processing track-wide plenary talk by Professor Peyman Milanfar of University of California, Santa Cruz. He presented a lively hourlong discussion on the most effective recent approaches to processing and restoration of images and videos. The conference of Optics and Photonics for Information Processing VIII was formally opened by an enlightening invited presentation by Dr. Most Tahera Naznin from McGill University, Canada, who showed the impact of LED irradiance on plant photosynthesis and action spectrum. The conference had papers in optical imaging, optical holographic systems, quantum computing, and optical interconnects. The papers presented in the conference contained a good balance between theoretical, numerical and application-oriented works. This conference also provides a training ground for graduate students, and this year was no exception. We had a number of Master's and PhD student presentations. These presentations, as a whole, have shown the audience the latest developments occurring in a wide range of the modern information processing areas. This was a successful conference, with 62 oral and poster presentations in nine sessions.

We thank all who helped make this an exciting conference, especially the authors, audience, and SPIE staff, who kept us on track all the way from Call for Papers to publishing the papers into SPIE proceedings. Our special thanks go to the audience for their active participation, by way of asking engaging questions after most of the presentations. For next year, we look forward to seeing you in this conference, and hope that you will help us make the ninth edition an appealing place for discussion of the latest advances in the field.

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