



River Publishers Series in Optics and Photonics

## Green Photonics and Smart Photonics

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### Description:

In recent years, many efforts have been devoted in the study, development and application of *Green Photonics* and *Smart Photonics*. This book presents recent advances, both theoretical and applications, reflecting the cutting-edge technologies and research achievements within these research fields.

*Green Photonics* intend to develop photonics technologies that can conserve energy, reduce pollution and create renewable energy. Light emitting diodes (LEDs) and solar cells with the characteristics of sustainable and low energy consumption are addressed in this book. The term of *Smart Photonics* reflect intelligence of optical and optoelectronic components with high sensitivity, fast response time and/or compact size. The book explores various aspects of *smart photonics* including fiber sensors, optoelectronic devices and waveguide devices.

The chapters in this edited book are written by researchers who presented quality papers at the 2015 International Symposium of Next-Generation Electronics (ISNE 2015), which was held in Taipei, Taiwan. The ISNE 2015 provided a common forum in the areas of opto-electron devices, photonics, integrated circuits, and microelectronic systems and technologies. The technical program consisted of 5 plenary talks, 23 invited talks and more than 250 contributed oral and poster presentations. After a rigorous review process, the ISNE 2015 technical program committee has selected 10 outstanding presentations and invited the authors to prepare extended chapters for inclusion in this book. Of the 10 chapters, five focus on the subject of *green photonics*, and the others cover *smart photonics*.

**Keywords:** Green Photonics, Smart Photonics, Optics, Light Emitting Diodes (LEDs), Multichip LED, Solar Cells, Quantum Dots, Silicon Carbide, Photonic Waveguides, High-Speed Optoelectronic Devices, Fiber Sensors, Ion Beam Technology, Fiber Amplifiers, GaN based Working Electrodes, Waveguide Devices

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