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# Optoelectronic Imaging and Processing Technology

Xinggang Lin Jesse Zheng Editors

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#### Introduction

With the rapid development of new materials, precision manufacturing and integration technology, opto-electronic imaging devices and image processing technology are widely applied in more and more areas from aircraft and satellite's Earth observation, video surveillance for security, to mobile phones in daily life. Enormous new devices and methods have been developed in recent years to meet increasing needs. OIT 2013: Optoelectronic Imaging and Processing Technology conference is a well-organized platform to let researchers and practitioners from universities, institutes and industry gather together and publish their newest results.

On this conference we received more than one hundred manuscripts. Through serious peer review of every submission we accepted 73 papers, 29 for oral presentation and 44 for poster. The papers cover a wide range in this area including infrared thermal imaging, ultrasonic endoscopic imaging, laser active imaging, system calibration and measurement, new algorithms of image and video processing, image and video pattern recognition, applications of machine learning and artificial intelligence, and many industrial and consumer electronic applications. From these papers you can see increasing bands and characteristics of electromagnetic waves are being explored to construct image and video, and newly developed imaging systems bring a broad world for creating new image/video processing methods. Concerning image and video content, you can find people are working hard to make devices and systems smarter and more intelligent, so as to let the machine be available to apperceive the environment, to detect and track specific objects, to recognize and identify predefined objects like human faces or fingerprints. On all accounts I think that this conference was very fruitful and successful. I would like to take this opportunity to thank all participants of the conference for their great contributions.

Xinggang Lin