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Introduction

Welcome to SPIE 12th International Symposium on Multispectral Image Processing and Pattern Recognition (MIPPR) in the city of Wuhan, China, 10-12 November 2023.

SPIE MIPPR is a flagship biennial symposium of SPIE. The symposium of 2023 took place after four years due to the Covid-19 pandemic for several years. The 11th symposium took place in November 2019. The symposium focuses mainly on the latest research in multispectral image processing and pattern recognition. The symposium has a broad charter. Multi-spectral is interpreted not just as multiple-wavelength in a narrow sense but also as multi-sensor, multi-modal, and multimedia. It covers many disciplines such as sensing, image processing, computer vision, and pattern recognition and involves the development of efficient processing algorithms and their optimization and implementation. The wide range of applications considered in this symposium include automatic target recognition, autonomous navigation, medical image processing, remote sensing, geographic information systems, and many others.

The symposium provides a forum for scientists, professors, engineers, and graduate students from universities, industries, and government laboratories to meet and exchange ideas and discuss theories, techniques, algorithms, and applications in multispectral image processing and pattern recognition. We expect that there will be ample discussions both inside and outside the lecture halls, and this will be an exciting meeting.

In response to the Call for Papers, we received 118 submissions. Based on the reviews provided by an excellent program committee, we accepted 86 papers covering many aspects of multispectral image processing and pattern recognition. To ensure a high-quality conference, all abstracts and proceedings of SPIE papers are reviewed by the peers for technical merit and English expression. The proceedings of MIPPR 2023 Symposium consist of five volumes which will be included in the SPIE Digital Library.

- Multispectral Image Acquisition, Processing, and Analysis (SPIE Volume 13084)
- Automatic Target Recognition and Navigation (SPIE Volume 13085)
- Pattern Recognition and Computer Vision (SPIE Volume 13086)
- Parallel Processing of Images and Optimization Techniques; and Medical Imaging (SPIE Volume 13087)
- Remote Sensing Image Processing, Geographic Information Systems, and Other Applications (SPIE Volume 13088)

The realization of a conference depends upon the hard work of many dedicated people. We would like to thank all the members of the organizing committee for putting together this symposium for the benefit of all the researchers. They are responsible for making this conference a success. We hope the papers and the research results presented at this conference will inspire new research in all the areas related to multispectral image processing and pattern recognition.

Bir Bhanu
November 10, 2023