2017 9th International Conference on Graphic and Image Processing (ICGIP 2017)

2017 2nd International Workshop on Signal Acquisition and Processing (ICSAP 2017) (ICSAP 2017-Workshop of ICGIP 2017)

Qingdao, China October 14-16, 2017





Venue:

Academic Exchange Center in Ocean University of China 中国海洋大学学术交流中心(青岛海大学术交流中心)

ADD: No. 8, Hongdao Road, South District, Qingdao, China (No. 4 School gate, Yushan Road, Yushan Campus, Ocean University of China)

地址: 青岛市南区红岛路 8 号(中国海洋大学鱼山路校区四校门)

Note: The following time arrangement is for reference only. In case that any absence or some presentations are less than 15 minutes, please arrive at conference room at least 30 minutes before your presentation.

SESSION 9

< Image photography and remote sensing technology>

16:30pm-18:00pm

< Venue: 海大厅/OUC Hall-2nd Floor >

Session Chair:

IP05 16:30pm-16:45pm

Different approaches for the texture classification of a remote sensing image bank *Philippe Durand*, Gerard Brunet, Dariush Ghorbanzadeh, Luan Jaupi CNAM. France

Abstract—In this paper, we summarize and compare two different approaches used by the authors, to classify different natural textures. The first approach, which is simple and inexpensive in computing time, uses a data bank image and an expert system able to classify different textures from a number of rules established by discipline specialists. The second method uses the same database and a neural networks approach.

Change Detection for Synthetic Aperture Radar Images Based on Pattern and Intensity Distinctiveness Analysis

Xiao Wang, Feng Gao, Junyu Dong, Qiang Qi

Ocean University of China, China

IP48 16:45pm-17:00pm

Abstract—Synthetic aperture radar (SAR) image is independent on atmospheric conditions, and it is the ideal image source for change detection. Existing methods directly analysis all the regions in the speckle noise contaminated difference image. The performance of these methods is easily affected by small noisy regions. In this paper, we proposed a novel change detection framework for saliency-guided change detection based on pattern and intensity distinctiveness analysis. The saliency analysis step can remove small noisy regions, and therefore makes the proposed method more robust to the speckle noise. In the proposed method, the log-ratio operator is first utilized to obtain a difference image (DI). Then, the saliency detection method based on pattern and intensity distinctiveness analysis is utilized to obtain the changed region candidates. Finally, principal component analysis and k-means clustering are employed to analysis pixels in the changed region candidates. Thus, the final change map can be obtained by classifying these pixels into changed or unchanged class. The experiment results on two real SAR images datasets have demonstrated the effectiveness of the proposed method.

IP57 17:00pm-17:15pm

Filtering Method of Star Control Points for Geometric Correction of Remote Sensing Image Based on RANSAC Algorithm

Xiangli Tan, Jungang Yang, Xinpu Deng

National University of Defense Technology, China

Abstract—In the process of geometric correction of remote sensing image, occasionally, a large number of redundant control points may result in low