

## SPECIAL ISSUE

### SPATIAL TECHNOLOGY AND SOCIAL MEDIA

Edited by A. Plaza, B. Zhang, J. A. Benediktsson, T. Yang and J. Li

#### 1855 Spatial Technology and Social Media in Remote Sensing: A Survey

By J. Li, J. A. Benediktsson, B. Zhang, T. Yang, and A. Plaza

**INVITED PAPER** This paper provides an overview on the integration of social media content with remote-sensing-based spatial technologies.

#### 1865 Remote Sensing Image Scene Classification: Benchmark and State of the Art

By G. Cheng, J. Han, and X. Lu

**INVITED PAPER** This paper reviews the recent progress of remote sensing image scene classification, proposes a large-scale benchmark data set, and evaluates a number of state-of-the-art methods using the proposed data set.

#### 1884 Toward Seamless Multiview Scene Analysis From Satellite to Street Level

By S. Lefèvre, D. Tuia, J. D. Wegner, T. Produit, and A. S. Nassar

**INVITED PAPER** This paper provides a review of techniques for multiview scene analysis combining satellite/aerial and ground/street level imagery in order to perform scene registration, reconstruction, or classification.

#### 1900 Social Media: New Perspectives to Improve Remote Sensing for Emergency Response

By J. Li, Z. He, J. Plaza, S. Li, J. Chen, H. Wu, Y. Wang, and Y. Liu

**INVITED PAPER** This paper provides a detailed overview of strategies for the integration of social media and remote sensing data in time-critical applications. Several practical case studies and examples are presented in the context of applications focused on emergency response.

#### 1913 Potentials of Active and Passive Geospatial Crowdsourcing in Complementing Sentinel Data and Supporting Copernicus Service Portfolio

By F. Dell'Acqua and D. De Vecchi

**INVITED PAPER** The EU Copernicus initiative is a superb instance of systematic, open Earth monitoring from space and from ground. This paper provides reasons for “why” and “how” incorporating “citizen sensors” could make it even more effective in capturing relevant information.

#### 1926 A Novel Methodology to Label Urban Remote Sensing Images Based on Location-Based Social Media Photos

By M. Chi, Z. Sun, Y. Qin, J. Shen, and J. A. Benediktsson

**INVITED PAPER** This paper proposes a novel data methodology proposed to tackle the labeling problem of urban remote sensing images by exploiting big remote sensing data, comprising remote sensing images in urban areas and location-based social media data and provides a tentative solution to validate the effectiveness of the proposed methodology.

#### 1937 On Combining Social Media and Spatial Technology for POI Cognition and Image Localization

By X. Qian, X. Lu, J. Han, B. Du, and X. Li

**INVITED PAPER** This paper presents a comprehensive overview for the technologies combining social media and spatial technology for place-of-interest cognition and image geographical localization.

## DEPARTMENTS

#### 1847 POINT OF VIEW

Our Hidden Figures

By J. Kovačević

#### 1851 SCANNING THE ISSUE

Spatial Technology and Social Media

By A. Plaza,

J. A. Benediktsson, J. Li,

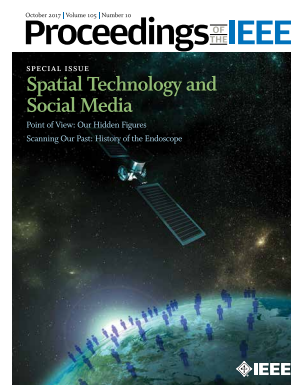
T. Yang, and B. Zhang

#### 1987 SCANNING OUR PAST

History of the Endoscope

By P. C. de Groen

#### 1996 FUTURE SPECIAL ISSUE/ SPECIAL SECTIONS



**On the Cover:** Our cover this month highlights the two technologies that generate crucial data which can help provide a comprehensive geo-social overlay of the physical environment of the planet.

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SPECIAL ISSUE: Spatial Technology and Social Media

## 1953 Spatial Event Forecasting in Social Media With Geographically Hierarchical Regularization

By L. Zhao, J. Wang, F. Chen, C.-T. Lu, and N. Ramakrishnan

**INVITED PAPER** This paper proposes a novel multiresolution framework that can jointly optimize the forecasting accuracy and discernibility utilizing the spatial hierarchy, correlation, and heterogeneity.

## 1971 Geotagging Text Content With Language Models and Feature Mining

By G. Kordopatis-Zilos, S. Papadopoulos, and I. Kompatsiaris

**INVITED PAPER** This paper presents a language-model-based approach for estimating the geographical location of web multimedia based on the accompanying text.

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