

# PROCEEDINGS OF SPIE

## ***Remote Sensing for Environmental Monitoring, GIS Applications, and Geology IX***

**Ulrich Michel**

**Daniel L. Civco**

*Editors*

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**Derya Maktav**, Istanbul Technical University (Turkey)

**Nicola Masini**, Consiglio Nazionale delle Ricerche (Italy)

**Konstantinos G. Nikolaopoulos**, Institute of Geology & Mineral  
Exploration (Greece)

**Florian Savopol**, Natural Resources Canada (Canada)

**Karsten Schulz**, Forschungsgesellschaft für Angewandte  
Naturwissenschaften e.V. (Germany)

**Alexander Siegmund**, Pädagogische Hochschule Heidelberg  
(Germany)

**Karl Staenz**, University of Lethbridge (Canada)

**John L. van Genderen**, ITC (Netherlands)

**Christiane H. Weber**, Université Louis-Pasteur (France)

## Session Chairs

Radar/SAR Application and Technique

**Karsten Schulz**, Forschungsgesellschaft für Angewandte  
Naturwissenschaften e.V. (Germany)

Archaeology, Cultural, and Natural Heritage Geospatial Infrastructure I

**Rosa Lasaponara**, Consiglio Nazionale delle Ricerche (Italy)

Archaeology, Cultural, and Natural Heritage Geospatial Infrastructure II

**Nicola Masini**, Consiglio Nazionale delle Ricerche (Italy)

Data Fusion

**Pablo H. Rosso**, Universität Osnabrück (Germany)

Geological Remote Sensing

**Panagiotis G. Tsombos**, Institute of Geology & Mineral Exploration  
(Greece)

Environmental Monitoring II

**Anna Maria Trosset**, Deutsches Zentrum für Luft- und Raumfahrt e.V.  
(Germany)

Environmental Monitoring III

**Michael Wurm**, Deutsches Zentrum für Luft- und Raumfahrt e.V.  
(Germany)

Urban Remote Sensing

**Antje Thiele**, Forschungsgesellschaft für Angewandte  
Naturwissenschaften e.V. (Germany)

Environmental Monitoring IV

**Claas Olehowski**, Pädagogische Hochschule Heidelberg (Germany)

Environmental Monitoring V

**Hannes Taubenböck**, Deutsches Zentrum für Luft- und Raumfahrt e.V.  
(Germany)

Airborne and High Resolution Remote Sensing I

**Frank Lehmann**, Deutsches Zentrum für Luft- und Raumfahrt e.V.  
(Germany)

Airborne and High Resolution Remote Sensing II

**Tilman U. Bucher**, Deutsches Zentrum für Luft- und Raumfahrt e.V.  
(Germany)

Classification - Evaluation

**Jochen Schiewe**, HafenCity Universität Hamburg (Germany)

Environmental Monitoring VI

**Daniel L. Civco**, University of Connecticut (United States)



## **Introduction**

These proceedings contain 73 papers that were presented at the SPIE Conference "Remote Sensing for Environmental Monitoring, GIS Applications, and Geology". The Conference took place in Berlin, Germany, 31 August–3 September 2009. It was the ninth Conference with this topic after its inauguration in Toulouse, France in 2001.

The conference sessions with presented papers and interactive posters were grouped into the following themes: Radar/SAR Application and Technique, Archaeology, Cultural and Natural Heritage Geospatial Infrastructure, Data Fusion, Geological Remote Sensing, Environmental Monitoring, Urban Remote Sensing, Airborne and High Resolution Remote Sensing, and Classification – Evaluation. Lively discussions often continued into the coffee breaks. Although the session topics seemed rather diverse, there was a common thread to many papers, i.e., the application of remotely sensed data for the protection of our environment and the integration with geographic information systems (GIS). Our conference is the only one within SPIE's International Symposium on Remote Sensing that covers GIS. There was strong support from the audience to continue these themes for future conferences.

The paper submission and review process were again perfectly organized by SPIE. We are also grateful to our Program Committee for their help with reviewing and the session compilation process.

**Ulrich Michel  
Daniel L. Civco**

