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Earth Resources and Environmental Remote Sensing/GIS Applications X

**Karsten Schulz
Ulrich Michel
Konstantinos G. Nikolakopoulos**
Editors

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Introduction

This proceedings volume is a collection of papers based on the invited and contributed presentations introduced at the SPIE conference, Earth Resources and Environmental Remote Sensing/GIS Applications X formerly known under the title, Remote Sensing for Environmental Monitoring, GIS Applications, and Geology. The conference took place in Strasbourg, France from 10 September to 12 September 2019. It was the nineteenth conference with this topic after its inauguration in Toulouse, France, in 2001. More than 40 papers were presented at this conference.

The conference sessions with presented papers and interactive posters were grouped into the following themes: Sensors and Platforms, Processing Methodologies, Remote Sensing for Archaeology, Preservation of Cultural and Natural Heritage, Hazard Mitigation Geologic Applications, Infrastructures and Urban Areas and Environmental Monitoring Concepts. Lively discussions often continued into the coffee breaks especially related to the latter topics. Although the session topics seems to be rather diverse, the multidisciplinary community of this conference allows discussion of important topics from several interesting points of view. After all, there was a strong support from the audience to continue these themes in future conferences. The topics of machine learning and deep learning were featured in several presentations and will play stronger roles in our conference. The keynote presentation, "New perspectives in coastal monitoring" revealed that not only flying unmanned vehicles plays an interesting role in our research.

The paper submission and review processes were again perfectly organized by the SPIE staff. We would also like to thank the SPIE staff for their responsiveness and support on-site. We are also grateful to the Program Committee members for their help in the review and session compilation process.

Karsten Schulz
Ulrich Michel
Konstantinos G. Nikolakopoulos

