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# Remote Sensing for Agriculture, Ecosystems, and Hydrology XVI

Christopher M. U. Neale Antonino Maltese Editors

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- 3 Monitoring of Rangeland and Forests Christopher M. U. Neale, University of Nebraska Lincoln (United States)
- 4 Utilization and Validation of RS Observations and Tools for Hydrology, Agriculture, and Flood Mapping and Modeling Shahid Habib, NASA Goddard Space Flight Center (United States)
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#### Introduction

This proceedings volume contains papers presented during the conference on Remote Sensing for Agriculture, Ecosystems, and Hydrology. The conference was part of the International Symposium on Remote Sensing sponsored by SPIE. The symposium was held at the Amsterdam RAI Exhibition and Convention Centre, Amsterdam, Netherlands, 22–25 September 2014.

The conference is dedicated to providing rapid dissemination of scientific and technical information, and attracted scientists and professionals from throughout Europe, Africa, Asia, and the Americas. Approximately 48 oral and 19 poster presentations were given, covering a broad range of topics in the field of remote sensing applications in environmental science.

The program was organized according to major themes, with 12 sessions on Agriculture: Crop Yield Monitoring; Surface Characterization; Monitoring of Rangeland and Forests; Change Detection and Vegetation Monitoring; Microwave and Radar Applications; Thermal Infrared Remote Sensing; High-Resolution Remote Sensing: Spatial and Spectral. Hydrology: Energy Balance and Evapotranspiration (2) and Water Resources (2).

The technical session "Utilization and Validation of RS Observations and Tools for Hydrology, Agriculture, and Flood Mapping and Modelling", was included as a joint session of the 9239 Program. We extent our thanks to Dr. Shahid Habib, from NASA Goddard Space Flight Ctr. (United States) for organizing and chairing this session.

The poster presentations also had good representation from the above-mentioned themes. The presentations described both fundamental and applications-based research activities including modelling, laboratory and field experiments, and operational applications.

We extend our gratitude to Dr. Massimo Menenti of Technische Univ. Delft (Netherlands) for chairing one of the Sessions; and to Dr. Carmelo Cammalleri (European Commission Joint Research Ctr., Italy), Dr. Wim G.M. Bastiaanssen and Dr. Massimo Menenti of Technische Univ. Delft (Netherlands) for giving three invited presentations on important topics. Our appreciation and gratitude goes also to the presenters for their efforts and to the participants for their insightful questions and discussions. Special thanks are also due to the host city for the excellent venue and to SPIE staff, and all the SPIE organizational staff for their support prior to, during

and after the symposium. We look forward to an even more successful conference in 2015.

Christopher M. U. Neale Antonino Maltese