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# PROCEEDINGS OF SPIE

## ***Remote Sensing for Agriculture, Ecosystems, and Hydrology XX***

**Christopher M. U. Neale  
Antonino Maltese**  
*Editors*

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# Contents

vii	<i>Authors</i>
ix	<i>Conference Committee</i>
xi	<i>Introduction</i>

---

## SENTINEL APPLICATIONS

---

10783 05	<b>Random forest classification using Sentinel-1 and Sentinel-2 series for vegetation monitoring in the Pays de Brest (France) [10783-6]</b>
10783 06	<b>Combining Sentinel-1 and Sentinel-2 images to monitor irrigation in sugar cane [10783-8]</b>
10783 07	<b>A novel blending algorithm for satellite-derived high resolution spatio-temporal normalized difference vegetation index [10783-9]</b>
10783 08	<b>Estimating above ground biomass for eucalyptus plantation using data from unmanned aerial vehicle imagery [10783-13]</b>

---

## UAV APPLICATIONS

---

10783 09	<b>Below-canopy UAS photogrammetry for stem measurement in radiata pine plantation [10783-11]</b>
10783 0A	<b>COTS UAV-borne multispectral system for vegetation monitoring [10783-12]</b>
10783 0B	<b>Flood risk assessment based on LiDAR and UAV points clouds and DEM [10783-102]</b>

---

## RAINFALL AND EVAPOTRANSPIRATION

---

10783 0D	<b>Landscape heterogeneity around flux measurement stations investigated through Sentinel-2 and PROBA-V satellite imagery [10783-15]</b>
10783 0E	<b>Rain use efficiency changes and its effects on land surface phenology in the Songnen Plain, Northeast China [10783-16]</b>
10783 0G	<b>MODIS satellite data for estimating actual evapotranspiration in Bulgaria (2000-2014) [10783-67]</b>
10783 0H	<b>Evaluating the potential of Sentinel-2 MSI and Landsat-8 OLI data fusion for land cover mapping in Brazilian Amazon [10783-7]</b>

---

## PRECISION FARMING AND SMART AGRICULTURAL SOLUTIONS

---

- 10783 OI **Phenotyping studies of wheat by multispectral image analysis** [10783-19]
- 10783 OJ **Comparative canopy cover estimation using RGB images from UAV and ground** [10783-20]
- 10783 OK **Smartphone-based application for agricultural remote technical assistance and estimation of visible vegetation index to farmer in Colombia: AgroTIC** [10783-21]
- 10783 OL **Multivariety sugarcane sucrose estimation using a combination of spectral and agrotechnology methods** [10783-22]
- 10783 OM **Automatic wheat ear counting in-field conditions: simulation and implication of lower resolution images (Best Student Paper Award)** [10783-23]

---

## SOIL MOISTURE

---

- 10783 OP **Flood risk assessment of Chervonograd mining-industrial district** [10783-26]
- 10783 OT **Satellite-based cover management factor assessment for soil water erosion in the Alps** [10783-2]

---

## VEGETATION MONITORING

---

- 10783 OU **Rice height and biomass estimations using multitemporal SAR Sentinel-1: Camargue case study** [10783-31]
- 10783 OW **Vegetation monitoring with satellite time series: an integrated approach for user-oriented knowledge extraction** [10783-33]
- 10783 OX **Trend of normalized difference vegetation index (NDVI) over Turkey** [10783-34]
- 10783 OY **Application of remote sensing data for a wetland ecosystem services assessment in the area of Negovan village** [10783-90]

---

## TEMPORAL AND SPATIAL ANALYSES

---

- 10783 OZ **Temporal and spatial aggregation of the normalized difference vegetation index for the prediction of rice yields** [10783-35]
- 10783 12 **Unmixing-based approach as a tool for classification of oil palm diseases using hyperspectral remote sensing in Colombia** [10783-38]

---

#### HYDROLOGICAL SCIENCES APPLICATIONS I

---

- 10783 14 **Drought as a desertification index: remote sensing approaches for its assessment in the East Mediterranean region** [10783-40]
- 10783 15 **Thermal sharpening of Landsat-8 TIRS surface temperatures for inland water bodies based on different VNIR land cover classifications** [10783-41]
- 10783 16 **Assessment of agricultural drought by remote sensing technique** [10783-42]
- 10783 18 **The São Francisco floodplain project: determination of the floodplain terrain using water level data and multi-source satellite imagery** [10783-44]
- 10783 19 **On water surface delineation in rivers using Landsat-8, Sentinel-1 and Sentinel-2 data** [10783-45]

---

#### HYDROLOGICAL SCIENCES APPLICATIONS II

---

- 10783 1A **Evaluation of different InSAR multi-baseline construction methods over a dam in southern Italy** [10783-46]
- 10783 1C **Network-based flow accumulation for point clouds: Facet-Flow Networks (FFN)** [10783-48]
- 10783 1D **BLUEWATER EYE: using satellite as a low cost water pollution sensor: analytics for deriving long term pollution insights based on mapping water turbidity** [10783-50]
- 10783 1F **Assessment of biological and physic chemical water quality parameters using Landsat 8 time series** [10783-101]

---

#### FOREST MONITORING

---

- 10783 1H **NDVI/EVI monitoring in forest areas to assessment the climate change effects in Hungarian Great Plain from 2000** [10783-56]
- 10783 1I **Forest stock assessment using IRS1C data and principal component analysis of Kalsi soil conservation division, Dehradun (India)** [10783-58]
- 10783 1K **Application of SAR and optical data from Sentinel satellites for spatial-temporal analysis of the flood in the region of Bregovo-Bulgaria, 11/03/2018** [10783-95]
- 10783 1M **Palm trees detecting and counting from high-resolution WorldView-3 satellite images in United Arab Emirates** [10783-61]

---

#### POSTER SESSION

---

- 10783 1N **Assessment of the capability of precision paddy field area and crop classification monitoring using drone and smart farm map** [10783-62]

- 10783 1O **Mapping the spatial distribution of highland kimchi cabbage growth based on unmanned aerial vehicle** [10783-63]
- 10783 1P **Development of field scale model for estimating barley growth based on UAV NDVI and meteorological factors** [10783-64]
- 10783 1Q **The study of the vortex trace of unmanned multicopters** [10783-65]
- 10783 1R **Development of drought index using drone imagery in South Korea** [10783-66]
- 10783 1S **Ground validation of GPM IMERG rainfall products over the Capital Circle in Northeast China on rainstorm monitoring** [10783-68]
- 10783 1T **Evaluation of soil moisture estimated from IASI measurements** [10783-69]
- 10783 1U **High resolution mapping of soil moisture in agriculture based on Sentinel-1 interferometric data** [10783-70]
- 10783 1V **Multitemporal soil moisture monitoring by use of optical remote sensing data in a dike relocation area** [10783-71]
- 10783 1W **Land degradation assessment of agricultural zone and its causes: a case study in Mongolia** [10783-72]
- 10783 1X **Infrared reflectance factor of various asphalts** [10783-73]
- 10783 1Y **Applicability of digital color imaging for monitoring nitrogen uptake and fertilizer requirements in crops** [10783-74]
- 10783 24 **Analysis of crop condition during monsoon season using multispectral and polarimetric SAR images** [10783-81]
- 10783 27 **Remote sensing for assessing soil erosion susceptibility of the lesser Himalayan watershed by Multi Criteria Analysis (MCA) of morphometry, hypsometry, and land cover** [10783-85]
- 10783 2E **Remote sensing and GIS combination to evaluate the ecosystems' conditions in "Serras do Porto"** [10783-93]
- 10783 2F **Forest land cover phenologies and their relation to climatic variables in a Carpathian Mountains region** [10783-96]
- 10783 2H **Comparison of scoring, matching, SMCE and geographically weighted regression In malaria vulnerability spatial modelling using satellite imagery: an Indonesian example** [10783-98]
- 10783 2I **Destriping methods for high resolution satellite multispectral remote sensing image based on GPU adaptive partitioning technology** [10783-99]
- 10783 2K **Estimating of rice crop yield in Thailand using satellite data** [10783-103]

# Authors

Numbers in the index correspond to the last two digits of the seven-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first five digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Ahn, Ho-yong, 1O, 1P  
Aiello, Martina, 0T  
Alcalá Canales, Adriana, 15  
AlMaazmi, A., 1M  
Almeida, R., 2E  
Althuwaynee, Omar F., 0X  
Álvarez-Taboada, Flor, 0B, 1F  
Amann, Simon, 1X  
Ametov, Fevzi, 0A  
Aparício Medrano, E., 0Z  
Araújo Soares de Paula, Ramille, 18  
Araus, José L., 0J, 0M  
Arguello, Henry, 0K, 12  
Asovsky, Valery P., 1Q  
Baghdadi, Nicolas, 0U  
Balivada, Srinivas Rao, 1D  
Balzarolo, M., 0D  
Barrios, J. M., 0D  
Baschek, Björn, 15  
Baumgartner, Andreas, 1X  
Beltrão, Norma, 0H  
Ben Asher, Jiftah, 1Y  
Benevides, Pedro, 1U  
Billey, Antoine, 05  
Birman, Santosh, 1I  
Bocchiola, Daniele, 0T  
Bondarenko, Oksana, 0A  
Bookhagen, Bodo, 1C  
Borisova, Denitsa, 0G, 1K  
Burud, Ingunn, 0I  
Camacho, Ariolfo, 0K, 12  
Capodici, Fulvio, 1A  
Carvalho Vianna Có, Jessica, 18  
Catalão, João, 1U  
Chang, Shuai, 0E  
Chang, Xing, 2I  
Chiarelli, Davide Danilo, 0T  
Conde, Vasco, 1U  
Corbari, Chiara, 0T  
Courault, Dominique, 0U  
Dancheva, Adlin, 0Y  
Danoedoro, Projo, 2H  
Dardanelli, Gino, 1A  
Dash, J., 2K  
de Oliveira Leão, Guilherme, 19  
Del Perugia, Barbara, 09  
Dida, Adrian I., 2F  
Dodamani, B. M., 16  
Dressel, Martin, 1X  
Duarte, L., 2E  
Dubovyk, Olena, 0W  
Dudai, Mordecai, 1Y  
El Moussawi, Ibrahim, 0U  
Fella, Sina, 1X  
Fernandez-Gallego, Jose A., 0J, 0M  
Florentino, Renan Santos, 06  
Frassy, Federico, 0T  
Frick, Annett, 1V  
Fricke, Katharina, 15  
Furier, Mykhailo, 0A  
Gantumur, Byambakhuu, 1W  
Gellens-Meulenberghs, F., 0D  
Geraldo Esteves Machado Filho, José, 06  
Ghazaryan, Gohar, 0W  
Gianinetta, Marco, 0T  
Gomes, Marília F., 18, 19  
Govedarica, Miro, 0B, 1F  
Goyal, Aanchal, 07  
Graw, Valerie, 0W  
Graziano, Paulo, 0L  
Grindbakken, Ole K., 0I  
Guha, Supratik, 1D  
Guruprasad, Ranjini B., 07, 1D  
Gutiérrez, Nieves Aparicio, 0M  
Hadi, Sinan Jasim, 0X  
Hadjimitsis, Diofantos G., 14  
Hamdi, F., 0D  
Havrys, A., 0P  
Herkommer, Alois, 1X  
Hirani, Priyank, 1D  
Ho Tong Minh, Dinh, 0U  
Hossard, Laure, 0U  
Huang, Fang, 0E  
Hykkerud, Aleksander, 0I  
Iakovenko, Valerii, 0A  
Iřiritiphan, Fareda, 1W  
Jakovljević, Gordana, 0B, 1F  
Janssens, I., 0D  
Justina, Diego D. D., 0L  
Karabyn, V., 0P  
Kazantsev, Taras, 0A  
Kefauver, Shawn C., 0J, 0M  
Kerfal, Samir, 0J  
Kooha, Phalakorn, 08  
Kopeika, Natan S., 1Y  
Kovács, Ferenc, 1H  
Krisanski, Sean, 09  
Kufolcor, Bless, 0I



Kumar, Parmanand, 27  
 Kuzmenko, Alla S., 1Q  
 La Loggia, Goffredo, 1A  
 Lamparelli, Rubens Augusto Camargo, 0L  
 Larar, Allen M., 1T  
 Lee, Dong-Ho, 1N, 1R  
 Lee, Kyung-do, 1O, 1P  
 Li, Bo, 0E  
 Li, Feng, 2I  
 Lillemo, Morten, 0I  
 Liu, Xu, 1T  
 Loulli, Eleni, 14  
 Maillard, Phillipe, 06, 18, 19  
 Maitra, Sanjit, 24  
 Maltese, Antonino, 1A  
 Mendes, S., 2E  
 Moukomla, Sitthisak, 08  
 Müller, Christoph, 1X  
 Muller, Jan-Peter, 1A  
 Munaa, Tsogtdulam, 1W  
 Na, Sang-il, 1O, 1P  
 Ndikumana, Emile, 0U  
 Nedkov, Roumen, 0G, 0Y  
 Nguyen Hai Thu, Dang, 0U  
 Nico, Giovanni, 1U  
 Niculescu, Simona, 05  
 Nieto-Taladriz, Maria Teresa, 0M  
 Nontasiri, J., 2K  
 Oliveira, Lília M., 18  
 Oswald, Sascha E., 1V  
 Pandey, Shachi, 1I, 27  
 Panwar, Vijendra Pal, 27  
 Park, Chan-won, 1O, 1P  
 Park, Jin-Ki, 1N, 1R  
 Park, Jong-Hwa, 1N, 1R  
 Passera, Corrado, 0T  
 Pathak, Abhishek A., 16  
 Pipitone, Claudia, 1A  
 Polinelli, Francesco, 0T  
 Popa, Ionel R., 2F  
 Póssa, Évelyn M., 18, 19  
 Qiu, Qi, 1S  
 Radeva, Kameliya, 0Y, 1K  
 Randhawa, Sukanya, 1D  
 Ravazzani, Giovanni, 0T  
 Rheinwalt, Aljoscha, 1C  
 Roberts, G., 2K  
 Rocha, Jansle Viera, 0L  
 Rojas Gutierrez, Lorena Avelina, 06  
 Rota Nodari, Francesco, 0T  
 Rulli, Maria Cristina, 0T  
 Samberg, Andre, 0A, 0P  
 Sarig, Shlomo, 1Y  
 Savastru, Dan M., 2F  
 Schellberg, Jürgen, 0W  
 Shainogal, I., 0P  
 Shevchenko, Viktor, 0A  
 Shin, Heong-Seup, 1N  
 Shlevin, Eli, 1Y  
 Sholev, Dimitar, 0G  
 Silva, Igor Silva Marques, 19  
 Siripon, Suramongkon, 08  
 So, Kyu-ho, 1O, 1P  
 Soncini, Andrea, 0T  
 Souza, Gustavo Ferreira de, 06  
 Sperl, Anna, 15  
 Srestasathiem, Panu, 08  
 Srivastava, Prateek, 1I  
 Starodub, Y., 0P  
 Stoyanov, Andrey, 1K  
 Suijker, W., 0Z  
 Sun, Wei, 1S  
 Sun, Yonghua, 1S  
 Talab-Ou-Ali, Halima, 05  
 Taskhiri, Mohammad Sadegh, 09  
 Teodoro, A. C., 0H, 2E  
 Tombul, Mustafa, 0X  
 Turner, Paul, 09  
 Vandansambuu, Battengel, 1W  
 Vargas, Hector, 12  
 Vasileva, Tanya, 0G  
 Vezzoli, Renata, 0T  
 Wagner, Kathrin, 1V  
 Wang, Cheng, 2I  
 Wang, Ping, 0E  
 Wang, Tao, 1S  
 Wang, XiaoYong, 2I  
 Wang, Yanbing, 1S  
 Wasuhiranyrith, Rattawat, 08  
 Watanabe, Junyitiro, 0L  
 Widayani, Prima, 2H  
 Wieneke, S., 0D  
 Wu, Falin, 1W  
 Xin, Lei, 2I  
 Yang, Xue, 2I  
 Zhang, Youquan, 1S  
 Zhao, Yan, 1W  
 Zhao, Yu, 0L  
 Zhou, Daniel K., 1T  
 Zilberman, Arkadi, 1Y  
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- 5 Soil Moisture  
**Christopher M. U. Neale**, University of Nebraska-Lincoln (United States)
- 6 Vegetation Monitoring  
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- 7 Temporal and Spatial Analyses  
**Christopher M. U. Neale**, University of Nebraska-Lincoln (United States)
- 8 Hydrological Sciences Applications I  
**Antonino Maltese**, Università degli Studi di Palermo (Italy)
- 9 Hydrological Sciences Applications II  
**Antonino Maltese**, Università degli Studi di Palermo (Italy)
- 10 Wildfire Monitoring  
**Antonino Maltese**, Università degli Studi di Palermo (Italy)
- 11 Forest Monitoring  
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## Introduction

This proceedings volume contains papers presented during the Remote Sensing for Agriculture, Ecosystems, and Hydrology Conference. The Conference was part of the International Symposium on Remote Sensing sponsored by SPIE—The International Society for Optics and Photonics. The Symposium was held at the ESTREL Congress Centre, Berlin, Germany, from 10th to 13th of September 2018.

Approximately 40+ oral and 20 poster papers were presented during this year's conference, covering a broad range of topics in the field of remote sensing applications for environmental science.

The program was organized into 10 sessions according to major themes, namely Sentinel Applications, UAV Applications, Rainfall and Evapotranspiration, Precision Farming and Smart Agricultural Solutions, Soil Moisture, Vegetation Monitoring, Temporal and Spatial Analyses, Hydrological Sciences Applications (2) and Forest Monitoring.

The conference Best Student Paper Award was given to the paper "Automatic wheat ear counting in field conditions, simulation and implications of lower resolution images" by Fernandez-Gallego *et al.*, presented by Jose A. Fernandez-Gallego (Univ. de Barcelona, Spain, and Univ. de Ibagué, Colombia).

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

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 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 2019 in Strasbourg, France.

**Christopher M. U. Neale  
Antonino Maltese**

