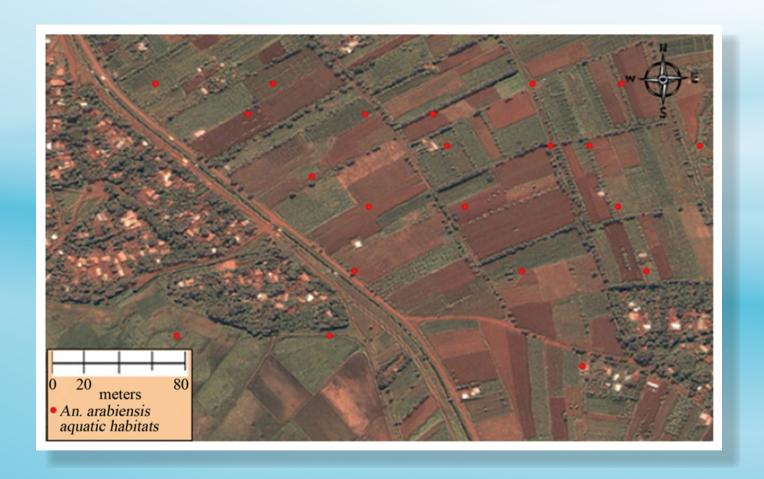


Advances in Remote Sensing





Journal Editorial Board

ISSN Print: 2169-267X ISSN Online: 2169-2688

http://www.scirp.org/journal/ars

.....

Editor in Chief

Prof. Gunter Menz University of Bonn, Germany

Editorial Board

Dr. Amr Abd-Elrahman University of Florida, USA

Dr. Bruno Andò The University of Catania, Italy

Dr. Raghavendra Angara University of Maryland, USA

Dr. Ram Avtar Japan Agency for Marine-Earth Science and Technology, Japan

Dr. Yong Bian Canada Centre for Remote Sensing, Canada

Dr. Padmanava Dash Jackson State University, USA

Dr. Arjan Durresi Indiana University-Purdue University Indianapolis, USA

Dr. Jeffrey J. Evans Purdue University, USA

Prof. Kamaruzaman Jusoff Universiti Putra Malaysia, Malaysia

Dr. Hyongki Lee University of Houston, USA

Dr. Sandeep Negi University of Utah, USA

Dr. Wenge Ni-Meister The City University of New York—Hunter College, USA

Dr. Thomas Oommen Michigan Technological University, USA

Dr. Mui-How Phua Universiti Malaysia Sabah, Malaysia

Dr. Sergey V. Samsonov Canada Centre for Remote Sensing, Canada

Dr. Preetha Thulasiraman Naval Postgraduate School, USA

Dr. Tuong Thuy Vu University of Nottingham, Malaysia

Dr. Zhuosen Wang University of Massachusetts Boston, USA

Dr. Byungyun Yang University of South Florida, USA

Dr. Chuanrong Zhang University of Connecticut, USA

Volume 3 Number 3



September 2014

Table of Contents

•	
Detecting Musk Thistle (Carduus nutans) Infestation Using a Target Recognition Algorithm	
M. Mirik, Y. Emendack, A. Attia, S. Chaudhuri, M. Roy, G. F. Backoulou, S. Cui	95
Land Use and Land Cover Change Detection in the Saudi Arabian Desert Cities of Makkah and Al-Taif Using Satellite Data	
A. F. Alqurashi, L. Kumar	106
Microwave Scattering for Soil Texture at X-Band and Its Retrieval Using Genetic Algorithm	
R. Tiwari, R. K. Singh, D. S. Chauhan, O. P. Singh, R. Prakash, D. Singh	120
Applications of Thermal Imaging in Agriculture—A Review	
R. Ishimwe, K. Abutaleb, F. Ahmed	128
Integrating a Trimble Recon X 400 MHz Intel PXA255 Xscale CPU® Mobile Field Data Collection System Using Differentially Corrected Global Positioning System Technology and a Real-Time Bidirectional Actionable Platform within an ArcGIS Cyberenvironment for Implementing Mosquito Control	1
B. G. Jacob, R. J. Novak	141
Spectral Crop Coefficient Approach for Estimating Daily Crop Water Use	
N. Rajan, S. J. Maas	197
A Study on Tropical Land Cover Classification Using ALOS PALSAR 50 m Ortho-Rectified Mosaic Data	
L. Mi, N. T. Hoan, R. Tateishi, K. Iizuka, B. Alsaaideh, T. Kobayashi	208

Advances in Remote Sensing (ARS)

Journal Information

SUBSCRIPTIONS

The *Advances in Remote Sensing* (Online at Scientific Research Publishing, <u>www.SciRP.org</u>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright $\ensuremath{\mathbb{Q}}$ 2014 by author(s) and Scientific Research Publishing Inc.

REUSE RIGHTS FOR INDIVIDUAL PAPERS:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

DISCLAIMER OF LIABILITY

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ars@scirp.org





Advances in Remote Sensing

http://www.scirp.org/journal/ars

Advances in Remote Sensing (ARS) is an openly accessible journal published quarterly. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments in all areas of remote sensing.

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous peer-review process. Accepted papers will immediately appear online followed by printed in hard copy. The areas covered by Advances in Remote Sensing (ARS) include but are not limited to the following fields:

- Advanced platforms and sensors
- Agriculture, ecosystems, land cover/change, hydrology, meteorological, social
- Biophysical and biogeochemical parameter modeling
- Change detection
- Data assimilation
- Data fusion
- Data receiving and engineering
- Data sharing and mining
- Economic surveys and cost-benefit analyses
- Environment management, dissemination, decision making
- Environmental monitoring
- Geospatial analysis of remote sensing data
- Global monitoring
- Hazard, ice/snow, fire, drought, fog, pollution
- Hyper-temporal remote sensing
- Image processing and analysis
- Image sequence analysis
- Image understanding and object based image analysis
- Land degradation & desertification
- Land-use and land-cover change assessment

- Land-use and land-cover change modeling
- Mobile mapping sensor and data analysis
- Multi-sensor approach
- Nonrenewable resources and geotechnical applications
- Other related principles of remote sensing
- Remote sensing of mining areas
- Remote sensing of wetlands
- Remote sensing planning, implementation
- Remote sensing program and experiment concepts
- Remote sensing science, theory
- Remote sensing strategic partnerships, policies, and measures
- Remote sensing validation and scaling problems
- Satellite instrument calibration requirements
- Satellite mission requirements and implementation
- Sensor characterisation
- Sensor intercalibration
- Sensor technology development
- Spacecraft and instrument navigation
- Time series analysis
- Unmanned aerial vehicle (UAV)
- Water quality modeling and benthic habitat classification
- Wetland mapping and ecology

We are also interested in: 1) Short reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book reviews—Comments and critiques.

Website and E-mail

http://www.scirp.org/journal/ars E-mail: ars@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- · Guaranteed targeted, multidisciplinary audience





Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org