COLUMNS & DEPARTMENTS

- 3 FROM THE EDITOR
- PRESIDENT'S MESSAGE
- 61 CONFERENCE REPORTS
- 84 TECHNICAL COMMITTEES
- 90 CHAPTERS
- 98 DISTINGUISHED LECTURER PROGRAM
- GRSS MEMBER HIGHLIGHTS 100
- 101 CALENDAR
- 2016 INDEX 103

MISSION STATEMENT

IEEE GEOSCIENCE AND REMOTE SENSING MAGAZINE

EDITORIAL BOARD 2016

Dr. Lorenzo Bruzzone Editor-in-Chief University of Trento Department of Information Engineering and Computer Science Via Sommarive, 5 I-38123, Trento Italy E-mail: lorenzo.bruzzone@ing.unitn.it Dr. Paolo Gamba University of Pavia Italy E-mail: paolo.gamba@unipv.it Dr. Linda Havden Center of Excellence in Remote Sensing Education and Research Elizabeth City State University LISA E-mail: haydenl@mindspring.com Dr. Michael Inggs University of Cape Town South Africa E-mail: mikings@gmail.com Dr. John Kerekes

Cochair, Conference Advisory Committee Rochester Institute of Technology LISA E-mail: kerekes@cis.rit.edu

Dr. David M. Le Vine NASA Goddard Space Flight Center USA E-mail: David.M.LeVine@nasa.gov

Dr. Irena Hainsek ETH Zürich Switzerland

Dr. Gail Skofronick Jackson NASA Goddard Space Flight Center USA E-mail: Gail.S.Jackson@nasa.gov

Dr. Marwan Younis DLR Germany E-mail: marwan.younis@dlr.de

GRS OFFICERS

President Dr. Kamal Sarabandi University of Michigan USA

Executive Vice President Dr. Adriano Camps Universitat Politecnica de Catalunya-Barcelona Tech Spain

Vice President of Meetings and Symposia Dr. David Kunkee The Aerospace Corp. Environmental Satellite Systems USA

Vice President of Publications Dr. William Emery University of Colorado USA

Vice President of Technical Activities Dr. Irena Hajnsek ETH Zürich Switzerland

Vice President of Professional Activities Dr. Paolo Gamba University of Pavia Italy

Vice President of Information Resources Dr. Steven C. Reising Colorado State University USA

IEEE PERIODICALS

MAGAZINES DEPARTMENT Associate Editor Laura Ambrosio

Senior Art Director Ianet Dudai

Associate Art Directors Gail A. Schnitzer, Mark Morrissev

Production Coordinator Theresa L. Smith

Senior Manager Advertising & Business Development Mark David +1 732 465 6473 m.david@ieee.org Fax: +1 732 981 1855

Advertising Production Manager Felicia Spagnoli

Production Director Peter M. Tuohy

Editorial Director Dawn Melley

Staff Director, Publishing Operations Fran Zappulla

other resources. IEEE Geoscience and Remote Sensing Magazine (ISSN 2168-6831) is published

The IEEE Geoscience and Remote Sensing Soci-

ety of the IEEE seeks to advance science and technology in geoscience, remote sensing and

related fields using conferences, education, and

quarterly by The Institute of Electrical and Electronics Engineers, Inc., IEEE Headquarters: 3 Park Ave., 17th Floor, New York, NY 10016-5997, +1 212 419 7900. Responsibility for the contents rests upon the authors and not upon the IEEE, the Society, or its members. IEEE Service Center (for orders, subscriptions, address changes): 445 Hoes Lane, Piscataway, NJ 08854, +1 732 981 0060. Price/Publication Information. Subscriptions: included in Society fee for each member of the IEEE Geoscience and Remote Sensing Society. Nonmember subscription prices available on request. Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limits of U.S. Copyright Law for private use of patrons:

1) those post-1977 articles that carry a code at the bottom of the first page. provided the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923 USA; 2) pre-1978 articles without fee. For all other copying, reprint, or republication information, write to: Copyrights and Permission Department, IEEE Publishing Services, 445 Hoes Lane, Piscataway, NJ 08854 USA. Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc. All rights reserved.

IEEE prohibits discrimination, harassment, and bullying. For more information, visit http://www.ieee.org/web/aboutus/whatis/policies/p9-26.html.



Digital Object Identifier 10.1109/MGRS.2016.2614874



