Activities of the GRSS Washington/Northern Virginia Chapter

The IEEE Geoscience and Remote Sensing Society (GRSS) Washington/Northern Virginia Chapter was formed in 1988 by a group of scientists and professionals, mainly from the geospatial/remote-sensing branches/sections of federal agencies, research labs, and universities in the Washington and northern Virginia area. The current active Chapter members number 197, including 43 IEEE Senior Members and 14 IEEE Fellows. The Chapter members come from the NASA Goddard Space Flight Center (GSFC) (Greenbelt, Maryland), the University of Maryland (College Park), the Agricultural Research Service (ARS) of the U.S. Department of Agriculture (USDA) (Washington, D.C.), George Mason University (Fairfax, Virginia), the Smithsonian Institution (Washington, D.C.), George Washington University (Washington, D.C.), and the U.S. Naval Research Laboratory (NRL) (Washington, D.C.), as well as several large geospatially related companies, such as Science Applications International Corporation (Reston, Virginia), Digital Signal Corporation (Chantilly, Virginia), and ADNET Systems, Inc. (Bethesda, Maryland). Dr. James C. Tilton, a computer engineer and remote-sensing expert from the NASA GSFC Computational and Information Sciences and Technology Office, served as the chair for quite a few years. Dr. Zhuosen Wang, University of Maryland/NASA GSFC, has chaired the Chapter since 2014. Details can be found at the Chapter website (http://sites.ieee.org/wnv-grss/).

Chapter members are very active in the GRSS community at large, and several have served on the GRSS Administrative Committee and participated in various outreach activities.

- Dr. Thomas J. Jackson (USDA ARS) is the GRSS secretary.
- Dr. David M. Le Vine (NASA GSFC) serves as the Distinguished Lecturers Committee chair.
- Dr. Paolo de Matthaeis (NASA GSFC) is the Frequency Allocations in Remote Sensing Technical Committee cochair.
- Dr. Paul Racette (NASA GSFC) serves as the Professional Activities Committee for Engineers representative.
- Dr. Meixia Deng, from George Mason University, acts as the GRSS liaison to ISO TC-211 (an international geospatial standard committee).
- Dr. George Komar (NASA GSFC) serves as the cochair of the Small Conferences Committee.
- Dr. Xiaofeng Li, from the National Oceanic and Atmospheric Administration (NOAA), is reaching out as the link between NOAA and the GRSS.
- Dr. H.K. Rama Ramapriyan (NASA GSFC) serves as a Distinguished Lecturer.
- Dr. Thomas L. Ainsworth (NRL), Dr. Gail Skofronick-Jackson (NASA GSFC), and Dr. James C. Tilton (NASA GSFC) are associate editors of IEEE Transactions on Geoscience and Remote Sensing.

LECTURES, SEMINARS, AND CONFERENCES

The Washington and Northern Virginia Chapter is located in an area surrounding the capital of the United States, which provides rich resources for membership and member development. The Chapter has hosted a series of activities to bring together researchers, students, and professionals. The academic seminars, covering different interest areas, facilitate idea and expertise exchanges and collaborations across the community.

Distinguished Lecturers have been invited to give presentations in the fields that most interest members. The distinguished lectures bring in hot topics and stir up great interest within the community. Prof. Lorenzo Bruzzone from the University of Trento, Italy, was invited to give his lecture “Current Scenario and Challenges in the Analysis of Multitemporal Remote Sensing Images” on 6 November 2015, which attracted more than 40 attendees. Dr. Akira Hirose, professor in neural networks and signal processing from the University of Tokyo, Japan, delivered his lecture “Advanced Neural Adaptive Processing in Interferometric and Polarimetric Radar Imaging” on 20 June 2016 (Figure 1). On 3 October 2017, Dr. Jiancheng Shi from the Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, presented his lecture “WCOM: A New Chinese Satellite Mission for Studies of the Global Water Cycle,” which attracted more than 50 attendees (Figure 2).

A series of focus-area seminars were held at George Mason University in 2016. Dr. Pius Lee, the lead scientist for air quality from the NOAA Air Resources Laboratory, assisted in organizing several in-depth seminars focusing on air quality. These included the following presentations:
Dr. Lee’s “The National Air Quality Forecasting Capability and the ARL Atmospheric Chemical Reanalysis” on 25 March 2016 (Figure 3)

Dr. Barry Baker’s “A New Way to Couple the CMAQ Model Using the National Unified Operational Prediction Capability Framework”

Dr. Youhua Tang’s “Assimilating Surface p.m.2.5 and Satellite AOD: A Comparison for Optimal Interpolation and GSI Approach” on 15 April 2016

Dr. Lee’s “OMI NO2 Column Densities over North American Urban Cities: The Effect of Satellite Footprint Resolution” on 15 April 2016.

Each of the specialized seminars attracted more than 20 attendees.

In addition, local scientists and visitors were invited to share their expertise with the Chapter members.

Dr. Feng Gao, a scientist in agricultural remote sensing from the USDA ARS Hydrology and Remote Sensing Laboratory, delivered a lecture, “Remote Sensing Data Fusion for Agricultural Applications,” on 14 October 2015.

Dr. Miguel Román from NASA GSFC presented the lecture “Dynamic Monitoring of Energy Services in Human Settlements Using Suomi-NPP VIIRS.”

Prof. Chao Yang from the China University of Geosciences, Wuhan, was invited to give a presentation, “A Geospatial Social Media Information Serving Framework for EO Scenarios,” on 7 April 2016.

Prof. Huadong Guo, an academician with the Chinese Academy of Sciences, Beijing, delivered his lecture “Recent Progress in Space-Borne and Moon-Based Earth Observation” on 6 February 2017.

The Chapter is also active in supporting local conferences. The Chapter cosponsored the Sixth International Conference on Agro-Geoinformatics, which was held in Fairfax Virginia, 7–10 August 2017. This conference fostered conversations among local participants and international professionals on the applications of remote-sensing and geospatial technologies in agriculture.

**FUTURE PLANS**

The GRSS has given approval to the Chapter to organize a series of webinars focusing on remote-sensing classification. The topics depend on the interest of the members and feedback from attendees. A webinar is a very convenient and cost-effective tool for real-time, multicast video/audio conferencing with participants from remote locations. This will reduce the travel cost and benefit not only the local community but also global GRSS members.

The Chapter will continue to organize seminars and activities at universities and agencies to promote connections within the local geoscience and remote-sensing community and foster student membership. We have received very positive feedback about the active seminars from both members and nonmembers. The Chapter will encourage the formation of student groups at different universities, such as the University of Maryland, George Mason University, and George Washington University.

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