



Geoscience and Remote Sensing Society Annual Chapter Report

Chapter Name: IEEE-GRSS Eastern North Carolina Chapter #03191

Chapter Officers:

President: Dr. Linda B. Hayden

Secretary: Jeffrey A. Wood

Reporting Period: January – December 2015

Date Submitted: January 6, 2016

Wish to be considered for Chapter Excellence Award: Yes X No

Please provide explanation on activities and accomplishments in each of the following categories. Provide backup documentation to properly justify each entry. To be considered for a Chapter Excellence Award, all categories must be addressed. Each category will receive a score of 1-3 (3 being the highest). The chapter with the highest overall score will win the award.

1. Technical Seminars Organized: (for each seminar, provide speaker name, affiliation, date of visit, title of talk, number of people in attendance, location, whether the speaker was a GRSS Distinguished Lecturer, etc.)

IEEE-GRSS Fall Distinguished Lecture Series

Thursday October 27, 2015, 5:30 pm
Room 229, Dixon-Patterson Hall, ECSU
35 participants

Dr. Gamaliel "Dan" Cherry

NASA Educator Professional Development, Deputy

NASA Opportunities, a Catalyst for Change

The Distinguished Lecture guest speaker, Dr. Gamaliel "Dan" Cherry, presented opportunities for internships, scholarships, and fellowships within NASA. Dr. Cherry currently serves as the NASA Educator Professional Development Line of Business Deputy. He received his doctorate degree in Instructional Design and Technology from Old Dominion University and has worked with NASA for ten years in the areas of Education and Human Resources.

Dr. Cherry emphasized that students should fill in their profiles at NASA's One Stop Shopping Initiative Recruiting NASA Interns, Fellows, Scholars (OSSI NIFS) in order to be a part of the pool of potential applicants (<https://intern.nasa.gov/ossi/web/public/main/>). OSSI is a NASA-wide system for the recruitment, application, selection and career development of undergraduate and graduate students primarily in science, technology, engineering and mathematics disciplines.

2. Other Technical Activities (technology initiatives, development of focused technical topics, instrumentation, etc.)

C++/Python Training

C++/Python syntax and structure, exception handling, functions, classes and Python's powerful object model. Performing common tasks in Python, including file layout, databases and web development, and some real-world examples of working Python code. Nov. 3 - 19, 2015 (2 hours/day)

SeaSpace Ground Station Operation Training

SeaSpace TeraScan® satellite processing/control systems training for receiving, processing, archiving, and distributing satellite data. June 8-12, 2015 (6 hours/day)

3. Education and Outreach (development or sponsorship of short courses, workshops, tutorials, open houses, etc.)

The chapter is in the process of organizing a joint meeting with the Women in Engineering chapter at North Carolina State University. The meeting will take place April 8, 2016 at 6pm in Room 3211 Engineering Building-2, Centennial /Campus NCSU 890 Oval drive, Raleigh, NC 27695. Also scheduled is a tour of the Center of Geospatial Analysis and a 5pm reception. This will be a distinguished lecture featuring Dr. Melba Crawford.

Note that the funds have already been identified for the 5pm reception, nametags and publicity materials. A proposal has been submitted to GRSS to assist with this chapter effort. The objective of the proposal is to support the development of educational materials and the joint GRSS - IEEE Women in Engineering Distinguished Lecture activity. The activities will promote the professional development of student chapter members and the WIE members in the North Carolina State University chapter. This event will also foster an alliance between the remote sensing center at Elizabeth City State University and the Center of Geospatial Analysis at NCSU with the goal of increasing GRSS membership. Vendor quotes are attached to the proposal for each item requested.

\$1736.20	US Coachways quote #503390
\$ 87700	Retractable GRSS banner- Godfrey Group quote #0000948
\$ 272.55	Bagmasters Writing Pens quote #2571
\$ 954.10	Bagmasters envelope journal books quote #2570
\$3,839.85	Total amount requested

4. Professional Development (career advising, mentoring, etc.)

IEEE Formatting for submission of professional research papers was conducted on June 15, 2015 (2 hours). Training on Code of Research Conduct was held for 2 hours on June 26, 2015.

A Graduate Success Seminar was conducted on Tuesday April 14, 2015 featuring current PhD candidates Jerome Mitchell and Ryan Lawrence along with Dr. Napoleon Paxton of the US Naval Laboratory.

5. Involvement with GRSS (participation in IGARSS and other GRSS-sponsored conferences, number of papers vs. number of membership, sessions organized at such conferences, hosting conferences, etc.)

2015 IEEE-GRSS

<http://nia.ecsu.edu/ur/2015/igarss15/igarss15.html>

IEEE students presented at the 2015 IEEE Geoscience and Remote Sensing Symposium (IGARSS) in Milan, Italy. Accompanying the students were Dr. Linda Hayden (Chapter President), Dr. Andrea Lawrence, and Mr. Charles Luther (past GRSS President).

The students presenting are listed below with their research titles and links to their published abstracts.

Andrew Brumfield, Elizabeth City State University

Update of the CERSER TeraScan Cataloging System and the TeraScan Image Processing Scripts

IGARSS Publication:

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7326029&contentType=Conference+Publications>

Raveen McKenzie, Mississippi Valley State University

A Comparative Study to the 2011/2013 Water Quality Assessments in the Pasquotank Watershed in Northeastern North Carolina with a Sea Level Rise Component

IGARSS Publication:

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7325722&contentType=Conference+Publications>

Ryan Lawrence, University of New Hampshire

Ground Penetrating Radar Survey of Edenton Green for Early Structural Remains

IGARSS Publication:

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7326774&contentType=Conference+Publications>

2015 Council on Undergraduate Research - Research Experiences for Undergraduates Symposium

<http://nia.ecsu.edu/ur/1516/151025nsf/>

This conference featured keynote presentations, presentations by students from Research Experiences for Undergraduates (REU) programs in all disciplines, sessions for REU students, faculty, and administrators, and opportunities to present to representatives from the National Science Foundation (NSF).

Elizabeth City State University (ECSU) was represented by IEEE member Maeah J. Walthall who took part in the Summer of 2015 REU at ECSU. Her research was titled "Autochamber Measurements of Net Ecosystem (CO₂) Exchange at a Subarctic Mire in Northern Sweden." Her mentor, an ECSU graduate, was Mr. Ryan Lawrence, a graduate student at the University of New Hampshire. Ms. Walthall's poster can be found at:

<http://nia.ecsu.edu/reuomps2015/teams/arctic/Slide1.jpg>.

6. Membership Development (number of members added, senior and fellow elevation, nominations submitted for senior and fellow members, etc.)

Two new members were added.

7. Fundraising (any activities for fundraising within the local industry, government, membership, etc.)

None

8. Membership Diversity (involvement of under-represented groups including women, and activities to promote and increase engagement of underrepresented groups)

Seventy (70%) of the membership is African American. The chapter is housed on the campus of a Historically Black University.

9. Web Presence (web site development and evidence that it is widely used, especially to enhance the above activities)

<http://nia.ecsu.edu/ieee/>

<http://nia.ecsu.edu/ur/1516/151027dls/>

<http://nia.ecsu.edu/ur/2015/igarss15/igarss15.html>

<http://nia.ecsu.edu/ur/1516/151025nsf/>