



# THE ASSOCIATION OF COMPUTER/INFORMATION SCIENCES AND ENGINEERING DEPARTMENTS AT MINORITY INSTITUTIONS



## ADMI

The Association of Computer/Information Sciences and Engineering Departments at Minority Institutions (ADMI) was founded in August 1989. It was established as a national organization dedicated to exploring and providing remedies to the educational issues in computer/information science and computer engineering that confront minority institutions of higher education.

Each year, the Association of Computer and Information Science/Engineering Departments at Minority Institutions (ADMI) hosts a symposium devoted to computing issues relevant to minority students, education and institutions.

An important facet of the symposium is the opportunity to explore collaborations between major research institutions, industry and minority institutions. Students present papers and explore graduate school options.



## faculty cloud computing workshop

Cloud computing provides elastic compute and storage resources to solve data intensive science and engineering problems, but the number of students from under-represented universities who are involved and exposed to this area is minimal. In order to attract underserved students, we trained faculty members from the Association of Computer/Information Sciences and Engineering Departments at Minority Institutions (ADMI) in the area of cloud computing through a one-week workshop conducted on the campus of Elizabeth City State University June 6-10, 2011. This workshop enabled faculty members from underserved institutions, who are involved with minority undergraduate students to gain information about various aspects of cloud computing while serving as a catalyst in propagating their knowledge to their students.

Participants were immersed in a “MapReduce boot camp”, where ADMI faculty members sought introduction to the MapReduce programming framework.

An overview of parallel and distributed processing provided a transition into the abstractions of functional programming, which introduces the context of MapReduce along with its distributed file system. Lectures focused on specific case studies of MapReduce, such as graph analysis and information retrieval.



## NSF STC Directors Meeting

Dr. Linda Hayden, Director of the Center of Excellence in Remote Sensing Education and Research, Dr. Andrea Lawrence, Co-PI for CReSIS ADMI activities, and Dr. Darnell Johnson, Education Program Director, attended the National Science Foundation (NSF) Science and Technology Centers (STC) Directors Meeting at The University of Kansas, Lawrence, on September 13, 2011. Directors from all NSF STCs were invited to the annual STC Directors Meeting. This was an opportunity to learn best practices, network with other Centers, and visit program officers. Another component was to network with STEM education/diversity organizations to comply with an NSF mandate to “demonstrate leadership in the involvement of groups traditionally underrepresented in STEM fields.” Dalesha Cartmen (MVSU), Nartezya Dykes (Spelman), and Jerome Mitchell (IU), students who had completed research experiences with the CERSER program, presented their research during the meeting. Dr. Lawrence conducted a workshop on how partnerships with MInority Professional Organizations can enhance STC diversity



## 2011 Annual ADMI Symposium Clemson University, Clemson, South Carolina



On April 14-16, 2011 the Association of Computer/Information Science and Engineering Departments at Minority Institutions (ADMI) hosted a symposium at Clemson University, Clemson, South Carolina. Devoted to computing issues relevant to minority students, education and institutions the focus of this year’s symposium was Cloud Computing. The symposium highlighted undergraduate and graduate research and engaged the issue of broadening participation in the science, technology, engineering and math fields.



## Students Receiving CReSIS Scholarships to Attend ADMI 2011

Each of the 39 students receiving CReSIS scholarships presented their research project in either oral or poster format during the ADMI symposium. Students also received certificates acknowledging their potential as CReSIS researchers.



Jernettie Burney, ECSU  
Canli Wang, FAMU  
Rhonda Davis, Howard  
John Bell, MVSU  
Lakeishawn Hunter-Jones, NSU  
Brendina Rogers, NSU  
Naleceia Davis, Spelman  
Aliya White, Spelman  
Joi Upton, UDC  
Anton Jones, WSSU

Je’aime Powell, ECSU  
Ronald Williams, FSU  
Marvin Elder II, MVSU  
Joseph Jackson, MVSU  
Brittany Herring, NSU  
DeMarcus Thomas, NSU  
Nicole Dawson, Spelman  
Theresa Wells, Spelman  
Crystal Batts, WSSU  
Khendre Reid, WSSU

Chelsea Vick, ECSU  
Qi’Anne Knox, Howard  
Delesha Cartman, MVSU  
Shaketia McCoy, MVSU  
Christopher Lanclos, NSU  
Dominique Piggot, NSU  
Jasmine Halcomb, Spelman  
Damian Dante, UDC  
Jason Brooks, WSSU  
James Hill, WSSU

Robyn Evans, ECSU  
Keesha Joseph, Howard  
Carlen Anderson, MVSU  
Kendra Thompson, MVSU  
Jeffie Powell Jr, NSU  
Devany Brown, Spelman  
Rashidah Slater, Spelman  
Larry Allen, UDC  
Velvet Conley, WSSU



## Summer 2011 Student Research Projects

### The Use of the Math Sprint in a Tutorial Program for Sixth Grade Students to Improve End of Grade Test Scores

Dalesha Cartman/Marvin Elder II, MVSU :: Sean Leavy, UM

### Temporal Reduction of the Ice Shelf in Pine Island Bay Antarctica: 1972 – 2003

Jessica Brownlow, MVSU :: Kirsten Hawk, Spelman :: Ya'Shonti Bridgers, ECSU

### Water-Quality Assessment of the Pasquotank River Watershed; Analysis of Dissolved Oxygen, pH, Salt, Total Dissolved Solids, and Conductivity

Aurielle Jones/Antonio Deese, St Aug :: Shaquetta Hassell, NSU

### Charles Creek Flood Zone Modeling: A Correlation Study of Environmental Conditions vs Water Level in the Pasquotank Watershed

Lekedrick Easley, MVSU :: Nartezya Dykes, Spelman

### Using Satellite Ground Operations Training to Develop an Algorithm Using Satellite Sea Surface Temperatures from the CERSER Ground Station to predict NOAA North Carolina Coastal Sea Buoy Temperatures

Ignatius Williams and Rockson Armaah, University of Ghana

### Testing Windows Azure Cloud Computer Service Efficiency

Jean Bevins/Michael Austin, ECSU

### Analyzing MapReduce Frameworks Hadoop and Twister

Joyce Bevins/Autumn Luke, ECSU

### Analysis of Sequence Population in an HPC Environment

Chartese Jones, MVSU

### The Evaluation of Biosequence Clustering Algorithms in a High-Performance Computing Environment

Joseph Jackson, MVSU

### A Comparison of Job Duration Utilizing HPC on a Distributed Grid

JerNettie Burney/Robyn Evans, ECSU

### Web Interfaces for Biosequence Desktop Analysis

Lakesha Wells, HU

### Tracking High-Performance Biosequence Clustering Jobs Using Common Web Interfaces

Franshetta Hibbler, MVSU

### Hybrid Cloud Security: Replication and Direction of Sensitive Data Blocks - Michael Koch, ECSU



## 2011 West Antarctic Ice Sheet (WAIS) Workshop

On September 21 – 23, ADMI students attended the 18th West Antarctic Ice Sheet (WAIS) Workshop. Representatives included Ya'Shonti Bridgers and Dr. Malcolm LeCompte (ECSU), Jessica Brownlow (MVSU), and Kirsten Hawk (Spelman). Students presented their summer 2011 research from the Research Experience for Undergraduate in Ocean, Marine, and Polar Sciences (REU OMPS). The student poster presentation was titled "Temporal Reduction of the Ice Shelf in Pine Island Bay Antarctica: 1972 – 2003." The venue for the 2011 WAIS workshop meeting was the Sylvan Dale Guest Ranch near Loveland, Colorado. This multidisciplinary Earth system science workshop focused on the unique glaciological, geological, oceanographic, and climatic aspects of the West Antarctic Ice Sheet and related regions elsewhere in the cryosphere. The theme for this year's meeting was Music of the Spheres, underscoring the need to look across disciplines to understand this system.



## ADMI Board Members

President - Thorna Humphries, Norfolk State University  
Vice-President for Information - Alfred Watkins, Spelman College  
Treasurer - Gail T. Finley, University of District of Columbia

### Members at Large

Elva Jones - WSSU	John Trimble - HU
Forbes D. Lewis - UK	Vivian J. Fielder - FU
William Lupton - MSU	Lawrence Oliver - NSF
Robert A. Willis Jr. - HU	Loretta A. Moore - JSU
Constance G. Bland - MVSU	Andrea Lawrence - Spelman
Ramon Vasquez-Espinosa - UPR	

Vice-President for Programs - Linda Hayden, Elizabeth City State University  
Secretary - Rebecca Caldwell, Winston Salem State University  
info@admiusa.org      http://www.admiusa.org/

## Workshop on Socially Relevant Computing University of Pretoria, Pretoria, South Africa August 2-3, 2011

On August 2 & 3, 2011, the workshop on 'Socially Relevant Computing' was held at the University of Pretoria. This workshop was sponsored by the National Science Foundation and Howard University. ADMI Representatives John Trimble, Gail Finley, Andrea Lawrence were in attendance.

Topics covered Information assurance and computer and network security, decision support, humanitarian/open source software, remote delivery of computing services, computer based educational services, core curriculum for socially relevant computing, and other elements of curriculum development.



ADMI 2011 Cloud Computing Panel: (L to R) Jerome Mitchell (IU), Aurelia Williams (NSU), Felicia Doswell (NSU)



## Upcoming Events

### ADMI Regional Faculty Workshop

June 4-8, 2012  
Elizabeth City State University  
Room 229 Dixon-Patterson Hall  
<http://admiusa.org/>

### REU in Ocean, Marine, and Polar Science

May 29 - July 20, 2012  
Elizabeth City State University  
<http://nia.ecsu.edu/ure.pdf>

### ACM SIGCSE 2011: Reaching Out

March 9-12, 2011  
ACM Technical Symposium on Computer Science Education  
Dallas, Texas  
<http://www.sigcse.org/sigcse2011/>

### ADMI Symposium

April 12 - 14, 2012  
Howard University, Washington, DC  
John Trimble - [trimble@scs.howard.edu](mailto:trimble@scs.howard.edu)

### NASA NICE Workshop

August 6-10, 2012  
Elizabeth City State University  
<http://nia.ecsu.edu/nice/>

## ADMI's Role

The Association of Computer and Information Science/Engineering Departments at Minority Institutions (ADMI) agrees to identify 4-5 member institutions in year one and again in year two to participate in the NSF funded CI-TEAM Implementation Project: Cyberinfrastructure for Remote Sensing of Ice Sheets.

Each selected institution will implement a CReSIS or cyberinfrastructure project during the spring semester as a part of a research or seminar CS course. The project will provide desktop videoconferencing equipment for the selected institutions to facilitate communication with ECSU and CReSIS institutions. Students and faculty from the selected institutions also participate in the monthly CReSIS All-hands videoconferences.

## Membership Information

### For Individuals at Member Institutions: \$25

\$5 discount if your institution is an ADMI member

### Individual Annual Membership Fee: \$ 30

For period: September 1 – August 31

### Institution Annual Membership Fee: \$150/year

For period: September 1 – August 31

### Perpetual Institution Membership Fee: \$3,000

Download the membership/renewal form at:  
<http://www.admiusa.org/> and mail to:

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