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2007 - 2008 Newsletter, Volume II: March 2008 - August 2008

# PARTICIPATING NAM INSTITUTIONS

- 1. Delaware State University
- 2. Elizabeth City State University
- 3. Howard University
- 4. Jackson State University
- 5. Lincoln University
- 6. Mississippi Valley State University
- 7. Morehouse College
- 8. Shaw University
- 9. Spelman College
- 10. Tennessee State University
- 11. Winston-Salem State University

## 2008 ECSU - NAM SUMMER INSTITUTE IN COMPUTATIONAL SCIENCE MAY 12 - 23, 2008



(left to right) Front row: Dr. Bland, Unquiea Wade, Anisah Nu'Man, Jamika Baltrop, Ashley Rouser, Amanda Eure, Shatina Morgan, Kevin Jones, Joan Kibaara, Dr. Bland, Dr. Kulkarni. Back Row: Dr. Houston, Dr. Chandler, Dr. Luttamaguzi, Jessica Wilson, Lee Smalls, Brittany Maybin, Diaminatou Goudiaby, Michelle Burke, Ashley Sullivan, Alvin McClerkin, Darius Wheeler, Samuel Ivy, Benjamin Harvey, Donnell Terry, La'Trent Brock, Dr. Alexander

#### **SPONSORS**

The Institute was sponsored by Elizabeth City State University (ECSU) and the National Association of Mathematicians, Inc. (NAM) and with funding support from the Dept. of Energy (DoE). It was held on the campus of Elizabeth City State University in Elizabeth City, NC.

#### ABOUT THE SUMMER INSTITUTE IN COMPUTATIONAL SCIENCE

This Institute is an intense two-week program where participants from a variety of HBCU's/MI's can learn, by research experiences, that Computational Science is an approach to the study of scientific and real world phenomena by extensive use of mathematical modeling, numerical methods, and simulation coupled with computer programming and computer visualization techniques. The Institute exposes participants to Computational Science by a series of tutorials and presentations by the Institute Coordinators and visiting Faculty Mentors.



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#### RESEARCH TEAM I



Group Topic: "An Investigation of Possible Effects of Global Warming on Forest Fires in Kentucky from 1945 to 2004"

<u>Mentor</u>: Dr. Jamiiru Luttamaquzi

Student members: (left to right) Kevin Ivy, Jamika Baltrop, Ashley Sullivan, Amanda Eure, Kevin Wingfield

#### RESEARCH TEAM II



Group Topic: "An Investigation of Energy Consumption of 25 Universities in Measuring a Carbon Footprint Based on Carnegie Level Classification"

Mentors: Dr. Constance Bland Dr. Andrea Lawrence

Student members: (left to right) Unquiea Wade, La'Trent Brock, Alvin McClerkin, Michelle Burke, Brittany Maybin



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#### RESEARCH TEAM III



<u>Group Topic</u>: "A comparative Study of Energy Usage by America and Japan Over a Ten year Period"

Mentor: Dr. Krishna Kulkarni

Student members: (left to right) Joan Kibaara, Lee Smalls, Anisah Nu'Man, Jessica Wilson, Donnell Terry





<u>Group Topic</u>: "A Study of the Correlation Between Air Quality and the Number of Visitors of the Great Smokey Mountain National Park Between 2002 and 2006"

Mentor: Dr. Farrah Chandler

Student members: (left to right) Darius Wheeler, Shatina Morgan, Benjamin Harvey, Ashley Rouser, Diaminatou Goudiaby



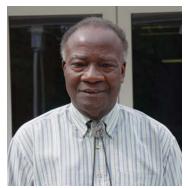
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#### INSTITUTE PRESENTERS/FACULTY MENTORS



Dr. Johnny Houston, Elizabeth City State University

Topics: Mathematical Modeling/Data Mining, Using Programming Techniques/
Computational/Visualization, Developing Research Topics, "CSSVC A Critical Thinking Approach to the Study of Science"



Dr. Farrah Chandler, Elizabeth City State University Topics: Numerical Methods: Solving Systems of Linear Equations Using Iterative Methods, Data Analysis: MATLAB/ Mathematica/ Maple



Dr. Andrea Lawrence, Spelman College Topics: Website Construction using HTML/Java/Pearl/Dreamweaver



Dr. John Alexander, Miami-Dade Community College Topics: Computational Modeling -Numerical Methods, Operations Research-Linear Programming, Operation Research Applications Using CSSV, Regression Analysis Applications, Markov Chains and Simulation Models.



Dr. Jamiiru Luttamaguzi, Elizabeth City State University
Topic: Programming in JAVA.



Dr. Krishna Kulkarni, Elizabeth City State University Topics: MATLAB - Visualization, Mathematica - Visualization, Visio-Professional - Visualization, Geometer's Sketchpad, and



Dr. Constance Bland, Mississippi Valley State University
Topics: Data Analysis using MathCAD,



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#### 2008 ECSU - NAM SUMMER INSTITUTE IN COMPUTATIONAL SCIENCE MAY 12 - 23, 2008

#### SCHEDULE OF EVENTS

SCHEDULE OF EV	ENIS	
Monday, May 12	A. 9:00 am - 3:00 pm	Travel Day
	B. 2:00 pm - 4:15 pm	Lodging Check In
	C. 4:30 pm - 6:00 pm	Opening Dinner - Golden Corral Restaurant
	D. 6:00 pm - 7:00 pm	Orientation - CSSV Center; 138 Lane Hall
Tuesday, May 13	A. 7:30 am - 8:20 am	Continental Breakfast
Wednesday, May 14	B. 8:30 am	Vans leave hotel for CSSV Center
Thursday, May 15	C. 8:50 am - 9:50 am	Tutorial I: Computational Modeling/Num. Methods
Friday, May 16	D. 10:10 am - 11:10 am	Tutorial II: Computer Programming/Sci. Visualization
	E. 11:30 am - 12:45 pm	Tutorial III: Computational Science: Tools & Tech.
	F. 12:45 pm - 2:15 pm	Lunch
	G. 2:15 pm - 3:30 pm	CSSV Seminar (Lecture/Presentation)
	H. 4:00 pm - 5:30 pm	Project Exploration/Project Development - Teams
	I. 6:00 pm - 7:30 pm	Dinner
	J. 7:30 pm - 9:30 pm	Open CSSV Center/Group and Independent Study
Saturday, May 17	A. 7:30 am - 8:20 am	Continental Breakfast
	B. 8:30 am	Vans leave hotel for CSSV Center
	C. 8:50 am - 9:50 am	Tutorial I: Computational Modeling/Num. Methods
	D. 10:10 am - 11:10 am	Tutorial II: Computer Programming/Sci. Visualization
	E. 11:30 am - 12:45 pm	Tutorial III: Computational Science: Tools & Tech.
	F. 12:45 pm - 2:15 pm	Lunch/Trip to Hampton Roads/Educational Activity
Sunday, May 18	Day of Relax	xation / Personal Exploration
******	·*·* <del>******************</del>	********
Monday, May 19	A. 7:30 am - 8:20 am	Continental Breakfast

***************************************		
Monday, May 19	A. 7:30 am - 8:20 am	Continental Brea
Tuesday, May 20	B. 8:30 am	Vans leave hotel
Wednesday, May 21	C. 8:50 am - 9:50 am	<b>Initial Team Med</b>

Tuesday, May 20
B. 8:30 am
Vans leave hotel for CSSV Center

Initial Team Meetings in CSSV Center

Project Exploration/Project Development - Teams
E. 1:00 pm - 2:30 pm
F. 2:45 pm - 4:00 pm
G. 4:00 pm - 5:30 pm
H. 6:00 pm - 7:30 pm
I. 7:30 pm - 9:30 pm
Open CSSV Center

Project Exploration/Project Development - Teams

Project Exploration/Project Development - Teams

Open CSSV Center

Open CSSV Center

Initial Team Meetings in CSSV Center

Project Exploration/Project Development - Teams

Open CSSV Center

Friday, May 23

A. 7:30 am - 8:20 am
B. 8:30 am
Continental Breakfast
Vans leave hotel for CSSV Center
Initial Team Meetings in CSSV Center
D. 10:00 am - 11:10 am
E. 11: 30 - 3:00 pm
Open CSSV Center/Group and Indepen
Continental Breakfast
Vans leave hotel for CSSV Center
Initial Team Meetings in CSSV Center
Preparation for Presentation
Final Presentations, Closing Luncheon



Some Major Categories of Computational (Mathematical) Models/Numerical Methods

Fraditional Courses for Studying Computational Models/ Numerical Methods

# ECSU's Computational Science -

### Scientific Visualization Center

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Courses			Categories	ories		
	Numerics / Sets	Functions/	Logic /	Counting	Relations /	Searching /
Discrete Mathematics (Method		Matrices	Logic Diagrams	Techniques	Graphs	Sorting Techniques
Calculus	Numerics /	Limits /	Convergence /	Root Finding	Differentiation	Integration
	Functions	Continuity	Divergence			
Linear Algebra	Matrices /	Vectors /	Transformations	Solving Linear	Eigenvalues /	Various Methods for
	Matrix Algebra	Vector Spaces		Systems of Equations		Solving Sys of Equations
Probability and Statistics	Probability	Distributions	Confidence Intervals/	Random Variables	Determinstic	Stochastic
	( Measure/uncertainities)	(Behavior/uncertainities)	Statistical Testing	Expected Values	Processes	Processes
Ordinary Differential Equations	Numerical Methods	Numerical Methods	Numerical Methods	Numerical Methods	Numerical Method	Numerical Methods
(ODEs)	for Solving First	for Solving Systems for Solving	for Solving	for Solving Systems	for Solving Initial	for Solving Boundary
	Order ODEs	of 1st order ODEs	2nd & higher order ODEs	2nd & higher order ODEs	Value ODEs	Value ODEs
Numerical Analysis (Methods)	Solutions of Linear /	Solutions of System	Interpolation,	Numerical Solutions	Numerical	Numerical Solutions
	Non-Linear Equations of Linear and	of Linear and	Extrapolation and	using Minimization	Differentiation	to ODEs and PDEs
		Non-Linear Equation	Curve Fitting	Optimization	and Integration	
Mathematical (Computational)	Modeling by similarity	Optimization	Simulation and	Modeling of	Modeling with Eqns /	Modeling with
Modeling	and proportionality	Modeling	Probabilistic Modeling	Dynamical Systems	Systems of Eqations	Numerical Methods
Partial Differential Equations	Numerical Methods	Numerical Methods	Numerical Methods	Numerical Methods	Numerical Perturbation	Finite Diff./ Finite Elmnt
	for Solving First	for Solving Systems for Solving Second	for Solving Second	for Solving Systems	Methods for	Finite Volume Methods
	Order PDEs	of 1st order PDEs	and higher order ODEs	2nd & higher order PDEs	Solving PDEs	for Solving PDEs
Traditional Computer Science	Computer Science I	Computer Science II	Data Structures	Computer Graphics	Database Management	Software Devlopment
Courses	(Programming)	(Programming)	(Programming)	or Intro. to Computati	Files/Report Generatio	
				Sc Scientific Vis.	(Optional)	(Optional)



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Research
GroupsReceiving
Certificates









TEAM II



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**A Very Busy Team III** 



Students Listen Intensely During a Tutorial Session



**Team II Presents** 



**Team I Presents** 





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#### **Summative Participant Evaluation Report**

PLEASE RESPOND TO EACH QUESTION BY PLACING "X" ABOVE THE AF  1. Did the Institute appear to be well-organized? 3.85  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Superbly organized} \]  2. Did Institute organizers supply participants with sufficient pre-Institute information? 3  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{More than adequate} \]  3. Did Institute organizers communicate with participants in a timely manner? 4.00  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Superbly so} \]  4. Were the tutorials implemented smoothly? 4.05  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Implemented Superbly} \]  5. Did most sessions begin and end as scheduled? 4.15  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5} \]  6. Were the breaks and meal hours provided for the length of time scheduled? 4.00  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5} \]  7. Were the physical facilities technologically advanced enough, the environment comforta atmosphere academically conductive enough for an Institute of this nature? 4.10  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5} \]  8. Were the lodging accommodations comfortable? 3.85  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Very Comfortable} \]  9. Was the arrangement for meals satisfying and enjoyable? 3.70  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Very Much So} \]  10. Were the materials received during the Institute useful and/or appropriate? 4.20  \[ \frac{1}{1}(\text{No}) \frac{2}{2} \frac{3}{3} \frac{4}{4} \frac{5}{5}\text{Very Useful} \]  11. Were most of the tutorial presenters motivating and/or inspiring? 4.05	11110	ilive I ai i	icipa	HILL INVA	aruatio	n Report
2. Did Institute organizers supply participants with sufficient pre-Institute information? 3  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-Superbly organized}{5-More than adequate} \]  3. Did Institute organizers communicate with participants in a timely manner? 4.00  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-Superbly so}{5-Superbly so} \]  4. Were the tutorials implemented smoothly? 4.05  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-Implemented Superbly}{5-Implemented Superbly} \]  5. Did most sessions begin and end as scheduled? 4.15  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5} \]  6. Were the breaks and meal hours provided for the length of time scheduled? 4.00  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5} \]  7. Were the physical facilities technologically advanced enough, the environment comforta atmosphere academically conductive enough for an Institute of this nature? 4.10  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5-Very Comfortable} \]  8. Were the lodging accommodations comfortable? 3.85  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-Very Comfortable}{5-Very Much So} \]  10. Were the materials received during the Institute useful and/or appropriate? 4.20  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{2} \] \[ \frac{3}{4} \] \[ \frac{5-Very Useful}{5-Very Useful} \]		PLEASE R	ESPO	OND TO	EACH	QUESTION BY PLACING "X" ABOVE THE APPROPRIATE NUMBER
<ol> <li>Did Institute organizers supply participants with sufficient pre-Institute information?           1 (No)</li></ol>	1.	Did the Inst	itute a	ppear to	be well-	organized? 3.85
3. Did Institute organizers communicate with participants in a timely manner? 4.00  \[ \frac{1}{1}\text{(No)} \] \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-\text{Nore than adequate}}{5-\text{Superbly so}} \]  4. Were the tutorials implemented smoothly? 4.05  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5-\text{Implemented Superbly}}{5-\text{Implemented Superbly}} \]  5. Did most sessions begin and end as scheduled? 4.15  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5} \]  6. Were the breaks and meal hours provided for the length of time scheduled? 4.00  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{2} \] \[ \frac{3}{3} \] \[ \frac{4}{4} \] \[ \frac{5}{5} \]  7. Were the physical facilities technologically advanced enough, the environment comforta atmosphere academically conductive enough for an Institute of this nature? 4.10  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5}-\text{Very Comfortable} \]  8. Were the lodging accommodations comfortable? 3.85  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5}-\text{Very Comfortable} \]  9. Was the arrangement for meals satisfying and enjoyable? 3.70  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5}-\text{Very Much So} \]  10. Were the materials received during the Institute useful and/or appropriate? 4.20  \[ \frac{1}{1}\text{(No)} \] \[ \frac{2}{3} \] \[ \frac{3}{4} \] \[ \frac{5}{5}-\text{Very Useful} \]		1 (No)	2	3	4	5-Superbly organized
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<ul> <li>4. Were the tutorials implemented smoothly?  1 (No) 2 3 4 5-Implemented Superbly</li> <li>5. Did most sessions begin and end as scheduled?  1 (No) 2 3 4 5</li> <li>6. Were the breaks and meal hours provided for the length of time scheduled?  1 (No) 2 3 4 5</li> <li>7. Were the physical facilities technologically advanced enough, the environment comforta atmosphere academically conductive enough for an Institute of this nature? 4.10 1 (No) 2 3 4 5</li> <li>8. Were the lodging accommodations comfortable?  3.85  1 (No) 2 3 4 5-Very Comfortable</li> <li>9. Was the arrangement for meals satisfying and enjoyable?  3.70  1 (No) 2 3 4 5-Very Much So</li> <li>10. Were the materials received during the Institute useful and/or appropriate? 4.20  1 (No) 2 3 4 5-Very Useful</li> </ul>	3.	Did Institute	e organ	nizers co	mmunica	ate with participants in a timely manner? 4.00
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8. Were the lodging accommodations comfortable?  3.85  \[ \frac{1}{1} \left( \text{No} \right) \frac{2}{3} \]  9. Was the arrangement for meals satisfying and enjoyable?  \[ \frac{1}{1} \left( \text{No} \right) \frac{2}{2} \]  3.70  \[ \frac{1}{1} \left( \text{No} \right) \frac{2}{2} \]  3.70  10. Were the materials received during the Institute useful and/or appropriate?  4.20  \[ \frac{1}{1} \left( \text{No} \right) \frac{2}{2} \]  3.70  3.70	7.	•	•			
1 (No) 2 3 4 5-Very Comfortable  9. Was the arrangement for meals satisfying and enjoyable?  3.70  1 (No) 2 3 4 5-Very Much So  10. Were the materials received during the Institute useful and/or appropriate?  4.20  1 (No) 2 3 4 5-Very Useful		1 (No)	2	3	4	5
9. Was the arrangement for meals satisfying and enjoyable?  3.70  1 (No) 2 3 4 5-Very Much So  10. Were the materials received during the Institute useful and/or appropriate?  4.20  1 (No) 2 3 4 5-Very Useful	8.	Were the lo	dging	accommo	odations	comfortable? 3.85
1 (No) 2 3 4 5-Very Much So  10. Were the materials received during the Institute useful and/or appropriate? 4.20  1 (No) 2 3 4 5-Very Useful		1 (No)	2	3	4	5-Very Comfortable
10. Were the materials received during the Institute useful and/or appropriate? 4.20 $\frac{1}{1}$ (No) $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$ -Very Useful	9.	Was the arra	angem	ent for m	neals sati	sfying and enjoyable? 3.70
$\frac{1}{1}$ (No) $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$		1 (No)	2	3	4	5-Very Much So
•	10.	Were the n	nateria	ıls receiv	ed during	g the Institute useful and/or appropriate? 4.20
11. Were most of the tutorial presenters motivating and/or inspiring?  4.05		1 (No)	2	3	4	5-Very Useful
	11.	Were most	of the	tutorial	presente	ers motivating and/or inspiring? 4.05

5-Very Much So

5-Highly

4.20

12. Were the tutorial presentations informative and/or beneficial?

1 (No) 2



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### 2008 ECSU - NAM SUMMER INSTITUTE IN COMPUTATIONAL SCIENCE MAY 12 - 23, 2008

um	mative P	artic	ipant !	Evalua	tion Report
				Conti	inued
13.	Were the tu	ıtorial	sessions	too short	t, short, the right length, long, or too long? 3.55
	1 (too sl	hort)	2	3	4 5-too long
14.	Did you fin	nd the	learning	of Java a	and using the USB stick satisfactory? 4.20
	1 (No)	2	3	4	5-Highly
15.	Did you ha	ve en	ough tim	e to practi	ice/do the tutorial exercises and your research project? 3.75
	1 (No)	2	3	4	5-Very Much So
16.	Did you us	e the l	oreaks, m	neal times	s, and other times to do networking and exchange ideas? 3.70
	1 (No)	2	3	4	5-Very Much So
17.	Did you get learning in g	a clea genera	r definit	ion/under search inv	estanding of computational science – scientific visualization and its usefulness in vestigations in the 21 <sup>st</sup> century? <b>3.80</b>
	1 (No)	2	3	4	5-Very Much So
18.	•				nore inspired to learn more and use the tools and techniques for Computational n learning in general and in research investigations than before the Institute? <b>4.00</b>
	1 (No)	2	3	4	5-Very Much So
19.	Are you no	w mo	re inspire	ed/determ	nined to earn a graduate degree? 4.20
	1 (No)	2	3	4	5-Very Much So
20.	Would you	recor	nmend th	nis Summ	ner Institute experience in the future for other students? 4.20
	1 (No)	2	3	4	5-Very Much So
21.	Was the Ins	stitute	a succes	s? Did it	achieve its goals/objectives or meet your expectations? 4.10
	1 (No)	2	3	4	5-Very Much So

ence – Scientific Visualization? (See Page 11)

22. What were the most beneficial aspects of your attending the ECSU – NAM Summer Institute in Computational Sci-

23. What items/ideas/changes would you suggest for improving future ECSU – NAM Institutes in Computational Science – Scientific Visualization? (See Page 11)



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# **Summative Participant Evaluation Report Continued**

# 22. What were the most beneficial aspects of your attending the ECSU – NAM Institute in Computational Science – Scientific Visualization?

- 1. Great research experience\*
- 2. Network connections\*
- 3. Learning new programming skills/ JAVA\*
- 4. Traveling and meeting new people\*
- 5. Learning MATLAB, Maple & Mathematica\*
- 6. Very knowledgeable faculty mentors\*
- 7. Experience in designing a webpage\*
- 8. Receiving books at the end\*
- 9. Good preparation for an internship
- 10. Learning the benefits of group research

# 23. What items/ideas/changes would you suggest for improving future ECSU – NAM Institutes in Computational Science – Scientific Visualization?

- 1. More time (longer program)
- 2. Increase amount of food stipend\*
- 3. Spend more time on research projects\*
- 4. More direction on topic selection\*
- 5. More group social events/activities\*

(\*) recurring response

# ECSU's CSSV Center Supports ECSU's MSEN Program Spring 2008

The mission of the North Carolina Mathematics and Science Education Network (NC-MSEN) Pre-College Program is to broaden the pool of students pursuing mathematics and science based majors and careers. The Pre-College Program actively recruits and prepares students of average to above average ability in grades 6-12 who have not been sufficiently exposed to mathematics and science based courses and careers.

The NC-MSEN Pre-College Program serves students from six counties in Northeastern North Carolina. Students participate in exciting, uplifting, and challenging activities in Mathematics, Science, and Technology through the Saturday Academy and Summer Scholars Programs on the campus of ECSU. A diversified staff of master public school teachers, retired educators, and college professors make up the staff that supplement the weekday educational learning provided in our public schools.

The curricula focus is to conduct academic enrichment experiences in problem solving, mathematics, science, communications, and technology. The Program provides needed guidance and enrichment activities to help students graduate from high school with the sufficient skills and interest to pursue a four-year degree in a mathematics or science based field of study. The MSEN Program was supported in several significant ways by the CSSV Center during the Spring of 2008.



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#### NAM's "Faculty Conference on Research and Teaching Excellence"

at

Bennett College for Women Greensboro, North Carolina April 4 - 5, 2008

#### Friday, April 4

All activities will be held in the Pfeiffer Science Building, Room 109

1:00 – 1:45 pm	Opening Session:
_	Dr. Nathaniel Dean, President- National Association of Mathematicians
	Welcome: Dr. Nathaniel Dean, President - NAM
	Dr. Dawn Lott, Vice President - NAM
	Greeting: Dr. Marilyn Mobley, Bennett College, Provost
	The Occasion: Dr. Leon C. Woodson, Executive Secretary - NAM
2:00 - 2:45 pm	Johnny Houston, Ph.D., Elizabeth City State University
-	Computational Science Workshop I
3:00 - 3:45 pm	John Alexander, Ph.D., Miami-Dade College
-	Computational Science Workshop II
	"Computational Science Tools for Selected Topics in Operations Research"
4:00 - 4:45 pm	Amal El Moghraby, Ph.D., Bennett College for Women
-	"Rossby Wave Paramters Recovered from Chaotic Passive Tracer Trajectories"
5:00 - 6:00 pm	Albert Turner Bharucha-Reid Lecture: Duane Cooper, Ph.D., Morehouse College
•	"A Report from the Benjamin Banneker Association's "Agenda for Impact"

Summit and the Development of a position on Mathematics Content

#### Saturday, April 5

9:00 - 9:45 am	Bhamini M.P. Nayar, Ph.D., Morgan State University
	"A Characterization of Metacompactness in Terms of Filters"
10:00 - 10:45 am	Roselyn Williams, Ph.D., Florida A&M University
	"Elastic Stability of Certain Stiffened Plate Structures"
11:00 - 11:45 pm	Major Anthony Johnson, Ph.D., US Military Academy
_	"Development of a Three Dimensional Perfectly Matched Layer for Transient
	Elasto-Dynamic Analyses"
1:00 - 1:45 pm	R. Lee Ponting, Ph.D., Bennett College for Women
	"Experience with a College Wide Mathematics Competnecy Examination and it
	Transformation into an Electronic Test"
2:00 - 2:45 pm	Gregory Gibson, Ph.D., North Carolina A&T State University
	"A Mathematical Model for Sickle Cell Depolymerization: Dynamical Properties
	and Numerical Experiments"
3:00 - 3:45 pm	Gerald Agbebda, Ph.D., Johnson C. Smith University
_	"The Lotto Principle and Random Sequences"



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#### 2008 NAM FACULTY CONFERENCE April 4 - 5, 2008

#### **Participating Faculty and Staff**

- Dr. Gerald Agbegha, Associate Professor, Johnson C. Smith University, Charlotte, NC
- Dr. John W. Alexander Jr., Professor, Miami-Dade College, N. Miami, FL
- Dr. Abdirur Ali, Instructor, Shaw University, Raleigh, NC
- Dr. Earl Barnes, Chairperson, Morgan State University, Baltimore, MD
- Dr. Fred Bowers, Associate Professor, Spelman College, Atlanta, GA
- Dr. Farrah Chandler, Associate Professor, Elizabeth City State University, Elizabeth City, NC
- Ms. Cynthia Clemmons, Administrative Assistant, Morgan State University, Baltimore, MD
- Dr. Duane Cooper, Associate Professor, Morehouse College, Atlanta, GA
- **Dr. Nathaniel Dean, Professor, Texas State University, San Marcos, TX**
- Dr. Xiao-Xiong Gan, Associate Professor, Morgan State University, Baltimore, MD
- Dr. Gregory Gibson, Assistant Professor, North Carolina A&T State University, Greensboro, NC
- Ms. Mary Hawkins, Assistant Professor, Prairie View A&M University, Prairie View, TX
- Ms. Lesa Horton, Assistant Professor, University of District of Columbia, Washington, DC
- **Dr. Johnny Houston, Professor, Elizabeth City State University, Elizabeth City, NC**
- **Dr. Anthony Johnson, Professor, United States Military Academy, West Point, NY**
- Dr. Rodney Kerby, Lecturer, Morgan State University, Baltimore MD
- Dr. Dawn Lott, Associate Professor, Delaware State University, Dover, DE
- **Dr. Crepin Mahop,** Assistant Professor, Howard University, Washington, DC
- **Dr. Amal El Moghraby**, Assistant Professor, Bennett College for Women, Greensboro, NC
- **Dr. Bhamini M. Nayar,** Associate Professor, Morgan State University, Baltimore, MD
- **Dr. James Nelson,** Associate Professor, Shaw University, Raleigh, NC
- Dr. Janis Oldham, Associate Professor, North Carolina A&T State University, Greensboro, NC
- **Dr. Donald Outing,** Academy Professor, United States Military Academy, West Point, NY
- **Dr. Richard Lee Ponting, Chairperson**, Bennett College for Women, Greensboro, NC
- **Dr. Vernise Y. Steadman,** Chairperson, University of District of Columbia, Washington, DC
- Dr. Barbara Tankersley, Assistant Professor, North Carolina A&T State University, Greensboro, NC
- Dr. Ira Walker, Assistant Professor, Hampton University, Hampton, VA
- **Dr. Roselyn Williams,** AssociateProfessor, Florida A&M University, Tallahassee, FL
- **Dr. Leon Woodson,** Associate Professor, Morgan State University, Baltimore, MD
- Mr. Bobby W. Wright, Monroe Community College, Rochester, NY



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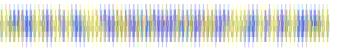
Scenes from the NAM Faculty Conference April 4-5, 2008



















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#### Scenes from ECSU's MSEN Program Spring 2008













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To find more details about other activities associated with ECSU's Computational Science - Scientific Visualization Center and/or activities sponsored by the Center, please visit the URL below:

http://cssvc.ecsu.edu

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