



# The Basic Facts

Volume 7, Issue 8, August 2006

The Basic Facts, College of Basic and Applied Sciences, Middle Tennessee State University, Murfreesboro, TN

## International Opportunities for CBAS

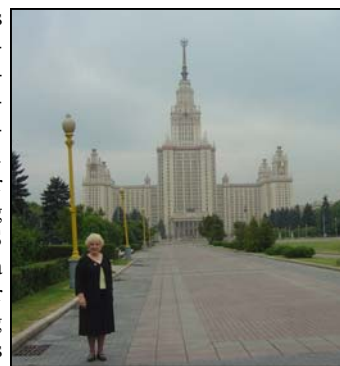
### The Science of Success

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The TBR and MTSU are both interested in creating more international opportunities for faculty and students. To this end, Drs. Forouddastan and Cheatham visited universities in Ethiopia in January 2005. The college has three GAs from Ethiopia and there are opportunities for MTSU faculty and students. MTSU also has an arrangement with the University of Coen in Cherbourg, France, to teach four MTSU general education courses



each summer. There is also a three-week workshop for faculty and students which engages students in hands-on projects. Dr. Walter Boles, along with an ETIS major, and a biology major were among the participants in summer



McPhee, to Kaliningrad, St. Petersburg, and Moscow. As a result, MTSU signed collaboration agreements (MOUs) with nine Russian universities

2006. These opportunities are available for summer 2007 too. In early July, Tom Cheatham traveled with an MTSU delegation, led by Dr.

and two institutes including the Russian Academy of Sciences. There are opportunities for faculty/students in several departments.

## New York, New York!

Eighteen high school seniors in the MTSU Educational Talent Search (METS) program seized the cultural opportunity of



visiting the 'Big Apple' July 11-13. They were able to see "Phantom of the Opera" on Broadway, the Statue of Liberty, Ground Zero, and attend tours of the NBC Studios, Natural Science Museum,

and Columbia University as well as shop 5<sup>th</sup> Avenue, SOHO, and Chinatown. METS serves over 600 middle and high school students in Coffee, Grundy, and Warren Counties. Its goal is to help first generation students receive financial aid and attend the college of their choice. METS is 100% federally funded at \$204,000 annually.

## 2006 Solar Splash World Championship of Solar-Electric Boating

In June, the MTSU student team members of the Solar Boat, an applied undergraduate research project, completed the 2006 ASME Solar Splash Competition with great success. The event itself takes place over five days, the first day being spent entirely on a thorough technical inspection of each craft. The remaining four days are occupied with on-water competitions, including sprint, maneuverability, endurance and speed competitions. Each

craft is powered completely by batteries and a solar array. This power combination on a water-craft creates its own interesting set of challenges; not only must the craft be very efficient hydro-dynamically, but it must use its power extremely effectively. The team won the

Rookie of the Year award for having the highest overall score among rookie teams. The team also won the Perseverance Award for dedication in finishing a four-hour endurance race, even with electrical complications.



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## The Basic B.E.S.T. (Boastful Educators Sharing Talents)

All departments are invited to submit items for this column

### Biology

**Amanda Sherlin** of MTSU's Center for Environmental Edu-



cation and Paula Larson, TDEC's Used Oil Coordinator, distributed oil recycling information, funnels, and other specialty items at the Bristol Motor Speedway for the "Ride Around the Speedway Track" event during the annual charity rally of the Tennessee Harley Owners Group (H.O.G.) in August.

Rain did not deter **Karen Hargrove** from MTSU's Center for Environmental Education WaterWorks! Program from sharing information on the proper disposal of auto fluids and water quality with hundreds of Sounds baseball fans at the Second Car Care Night in July.

**Jeff Walck** presented a seminar in the Department of Environmental Horticulture and Landscape Architecture at Hokkaido University, Sapporo, Japan in June. Afterwards, he traveled to Indonesia and met with faculty at the University of Bengkulu and Gadjah Mada University to establish research collaborations.

MTSU WISE women Arielle Ross, Kamilah Banks-Word and Bette Gosa presented "WISE Chemistry" to rising ninth grade students attending the Building a Bridge to College summer program. The workshop included information about being a science major, what to study in high school to prepare for college, and several chemistry demonstrations including the Coke Explosion (see photo).



### Chemistry

**Judith Iriarte-Gross** received an NSF grant in the amount of \$199,908 for her project entitled "GSE/DIS: A Dissemi-

nation Project to Increase Girls Raised in Tennessee Science (GRITS)."

**Gary Wulfsberg** presented "Rainbow Wheel and Rainbow Matrix: Two Effective Tools for Learning Ionic Nomenclature" on behalf of graduated MTSU D.A. student Joseph Chimeno at the 19th Biennial Conference on Chemical Education at Purdue University August 1. The talk was part of the symposium on "Research on Chemical Education Using Computers" organized and chaired by **Michael Sanger**.

**Preston MacDougall** was featured in the July 31, 2006, issue of *Chemical and Engineering News (C&EN)*. This article about his weekly radio broadcasts was not only a wonderful tribute to the NPR radio program, "Chemical Eye", it also brought international recognition to his work, the Department of Chemistry, and to MTSU.

**John DiVincenzo**, along with former graduate student Rebecca James and Geosciences Professor Albert Ogden, recently published "A Water Quality Study in Rutherford County, Tennessee: Student Group Project" in the *Journal of Natural Resources & Life Sciences Education* (Volume 35, 2006).

**Debby Rosenthal**, a doctoral student in chemistry, has been appointed as the Chemistry Department Chair at Nashville State Community College beginning fall 2006.

### Computer Science

**Brenda Parker** attended the Eista 06 Conference in Orlando, Florida, July 17-23.

**Al Cripps** won best paper presentation for his session at the 2006 IEEE World Congress on Computational Intelligence Conference in Vancouver, BC, July 16-21. The title of his presentation was "Improving the Performance of FLN by Using Similarity Measures and Evolutionary Algorithms."

**Suk Jai Seo, Jungsoon Yoo and Sung Yoo** attended the Dot NET Workshop in Lake Forest, Illinois, in July.

### Engineering Technology

The CIM program is celebrating its 10th anniversary this year with much to be proud of. We have over 220 graduates in the workplace, nearly 300 current majors, and three other universities



replicating the CIM program in chosen geographical locations. Much of this success was due to the tireless efforts of the CIM director, **Austin Cheney**, who came on board in 1998. Mr. Cheney has taken a new job at Alfred State in New York as the Dean of the School of Management & Engineering Technology. It is a great career opportunity for him and his family, and we wish him the very best. Thank you, Austin, for making CIM a top priority and putting it on the map.

In July, the Lean Six Sigma project team of graduate students presented their research findings to the management team at Stinger Medical Industries. Stinger is a manufacturer of PC stations for the medical industry.

ETIS student Christopher Davenport was awarded the MTSU Young Alumni Achievement Award. He will be honored on homecoming day as well as at the President's Celebration of Excellence next spring. Congratulations!

### Mathematical Sciences

**Rong Luo** published "Non-Bipartite Graphs With Third Largest Laplacian Eigen Value Less Than Three" with Xiaodong Zhang and "A Note on Class One Graphs With Maximum Degree Six, Discrete Mathematics" with Xuechao and Jianbing Niu.

**Doivie Kimmins**, Associate Director of TMSTEC, attended the 4th Inter-

national Conference on Education and Information Systems, Technologies and Applications in Orlando July 20-23. She presented a paper, "Technology and Professional Development: Integrated Strategies for Delivery," coauthored with **Mary Martin** and **Ray Phillips**.

**Curtis Church** and **Don Hong** organized a mini-symposium of Mathematics and Statistics in Cancer Research for the Society of Industrial and Applied Mathematics 2006 Conference on Life Science at Raleigh, North Carolina, July 31-August 4. **Don Hong** presented a talk on "A Novel Algorithm for Proteomic Cancer Data Processing Using Wavelets," and **Zach Sinkala** presented "Simulation of Solid Tumor Growth."

### Nursing

**Suzanne Prevost** received a grant from the John A. Hartford Foundation to attend the Nursing Research Scholars Program at New York University July 17-21. The program focused on the development of research projects to address the health care needs of the elderly.

**Shelly Turner** was appointed to serve on the Tennessee Hospital Association Center for Health Workforce Development Advisory Committee.

### Physics & Astronomy

**Martha Weller** represented MTSU at this year's SENCER (Science Education for New Civic Engagements & Responsibilities) Summer Institute in San Jose, CA, in August.

### CBAS

Congratulations to ABAS, AERO, CSCI, ETIS, and NURS for winning academic performance awards for their students' performance on the major field test in 2005-06. CSCI also won an award for performance of their students on the general education exam.