



November 2 – 8, 2008

LSU-Led Charter School Prepares for International Science Competitions

Students at the Abramson Science & Technology Charter School in New Orleans were one of only two schools in Louisiana and the only one in New Orleans to participate in the finals of an international science competition last May. This year, the students are preparing new science projects, hoping to compete in more science competitions and bring larger awards to the state.

Abramson is a K-12 program that gives students a math and science-based education with a focus on using state-of-the-art technology. Students work collaboratively with universities and are mentored by experienced scientists to enter national and international science project competitions. The school formed at the site of Marion Abramson Senior High School in New Orleans east. Hurricane Katrina extensively damaged this part of the city, and the charter school is a way to rebuild the education infrastructure in the area.

This new concept for education was developed through a workgroup comprised of LSU, Southern University and Southeastern Louisiana University and led by Tefvik Kosar, an LSU professor in the Department of Computer Science and at the Center for Computation & Technology, or CCT. The group received approval in January 2007 from the State Board of Elementary & Secondary Education to begin the first school in the New Orleans area, and students began attending the school in Fall 2007.

In its first year, Abramson students participated in the finals of the International Sustainable World, Energy, Engineering and Environment Project Olympiad, or ISWEEP'08, which took place in Houston, Texas in May 2008. More than 600 participants from 50 countries participated in ISWEEP'08.

“This was a very big accomplishment, considering this was only the first year of the school,” Kosar said. “ This year, we are getting better prepared so we can compete again. We showed that students from New Orleans can compete with international students in math, science and engineering, so this year, we hope to bring really big awards to the school and to the state.”

Abramson joined last year’s competition with four projects, two of which were selected for the finals, with one winning the honorable mention. Kosar, along with Orhan Kizilkaya, a research scientist at the LSU Center for Advanced Microstructures & Devices (CAMD), and two LSU CCT/computer science graduate students partnered with

the Abramson high school students and teachers, mentoring these four projects from the beginning to the end.

The student projects covered a multitude of computational science and technology-related topics. One project aimed to improve hurricane awareness among high-school students while teaching them how to use the state-of-the-art Louisiana Optical Network Initiative, or LONI, high-performance computing resources in Louisiana, as well as computational science tools that predict possible local effects of an approaching hurricane. Other student projects involved parallel computing and data throughput optimization on LONI as well as microspectroscopy experiment studying the interaction between the fungi and plant leaves.

“The science and technology-based model we are using at Abramson is a very successful model,” Kosar said. “According to recent research, kids who get exposed to math, science and technology at very early ages become more successful in those and other academic fields as well. Schools implementing similar models in neighboring states such as Texas and Oklahoma have become the most successful schools in their states in a very short amount of time. I am very positive that we will be one of the best schools in New Orleans in the very near future. We also have plans to replicate the same charter school model in other cities in Louisiana, such as Baton Rouge, Lafayette and Shreveport.”

This year, Abramson students have started preparing for the science competitions much earlier and are working with university collaborators to develop state-of-the-art projects so they can compete in the city- and statewide as well as international science competitions.

Some competitions the Abramson students plan to enter include the New Orleans City Science Fair, Louisiana State Science Fair, ISWEEP '09 and the Intel International Science Fair.

Pats on the Back:

- LaCumba, LONI's IBM P5 cluster at Southern University, is now open to users. LaCumba (lacumba.loni.org) is one of the five LONI's 14-node IBM Power5 clusters running the AIX operating systems. One node is used as head node while the other 13 nodes are serving as compute nodes.

CCT in the News:

LSU Photography Grad Honored With Prestigious Lucie Award

As the LSU School of Art works to develop its new curriculum in the digital arts, a recent photography graduate is earning national praise for his work in the field – work he pioneered during his years at LSU.

<http://www.cct.lsu.edu/site.php?pageID=63&newsID=890>

Upcoming Lectures:

- Michael Parks of Sandia National Laboratories will lecture as a part of the Colloquium Series on “Towards Multiscale Materials Modeling with Peridynamics.” The lecture will take place Friday, Nov. 14 at 11:30 a.m. in 338 Johnston.

Workshop/Conference News:

- The Department of Civil and Environmental Engineering will have a coastal engineering seminar on Wednesday, Nov. 5 from 4:40 p.m. to 5:30 p.m. in the Germano Lecture Room (2412 Patrick F. Taylor Hall.) The speaker will be Ty Wamsley, discussing “Potential of Wetlands to Reduce Storm Surge.”
- **SC 08** - To ease in the process of finding drivers and passengers for the trip to Austin, please go to the wiki and enter one of the following statements in your Arriving and/or Departing block:
 - 1.) Need Passengers
 - 2.) Need Ride
 - 3.) Car Full
 - 4.) Riding with "last name of driver"

This should help everyone find rides or passengers based on dates of arrival, etc.

- There will be a mandatory meeting for all CCT faculty, staff and students who will attend SC 08 at 3:30 p.m. next Wednesday, Nov. 12, in Johnston 338. This meeting immediately follows the ALL CCT meeting. Attendance is pertinent, as Jarek Nabrzyski, Steve Beck and Kristen Sunde will review talking points to use during booth duty and discuss how to answer questions about the center that might come up during the conference.

Please Note:

- The next All CCT Meeting will be at 3 p.m. next Wednesday, Nov. 12, in Johnston 338, followed by a meeting for all those attending SC08. **If you have announcements or news for the ALL CCT meetings, please send to Events Manager Karen Jones at kjones@cct.lsu.edu.**
- The next training session is on Wednesday, Nov. 5 from 9:30 a.m. until 11:30 a.m. in 338 Johnston Hall and on the Access Grid. To register, please visit: <http://hpc.lsu.edu/training/tutorials/-fall08practicalmpi>
- TeraGrid Deployment and Discussion - Those who would like to propose something or apply for extra GIG funds need to have the Area Director’s agreement. The Area Director will have to approve that it is a good candidate for funds. If you have an idea of something that will help TeraGrid and matches a need, please let Daniel S. Katz know.

- Dependent Verification Policy – All active or retired employees who have dependents covered under the policy, must provide written proof that each dependent is their actual legal dependent. Employees who have dependents covered under any of the health plans must show proof of dependent status by submitting acceptable certified documents. To avoid being dropped from their health plan on Dec. 31, **ALL CERTIFIED DOCUMENTS SHOULD BE SUBMITTED TO HRM BY NOV. 30, 2008.** The designated dates and times to submit these documents are below and the Benefits Representative must see a certified copy, but will only be required to obtain a photocopy of the document, and the certified copy will be returned to the employee.

Important Dates

November

Nov 4	Acadian Room, LSU Union	12:30 PM - 4:30 PM
Nov 18	Acadian Room, LSU Union	8:30 AM - 12:30 PM

- If you have any news for the CCT Weekly, please e-mail PR Manager Kristen Sunde directly at ksunde@cct.lsu.edu.

Upcoming Grant Deadlines:

Note: Please see the CCT deadline Web site, as many NSF deadlines are listed here:
<http://www.cct.lsu.edu/about/grants/deadlines/events.php>

Cyber-Enabled Discovery and Innovation (CDI)

November 21 2008 10:00 am

At Least \$ 26,000,000.00 available

http://www.nsf.gov/pubs/2008/nsf08604/nsf08604.htm?govDel=USNSF_25