Aug. 2-8, 2009

CCT Features Research in Digital Media This Week at SIGGRAPH 2009

SIGGRAPH, the world’s premiere conference on digital media, interactive technologies and computer graphics, is taking place in New Orleans this week at the Ernest N. Morial Convention Center.

CCT will host a booth during the SIGGRAPH exhibition, Aug. 4-6, to showcase recent research and education innovations in digital media, including projects in animation and digital art, electro-acoustic music, video game design, shape-mapping technology and more.

The exhibit will display research highlights from the University’s Arts, Visualization, Advanced Technologies and Research, or AVATAR, multidisciplinary hiring initiative, which LSU created in Spring 2008.

AVATAR, which CCT Interim Director Stephen David Beck leads, established a university-wide faculty focus on the intersections among art, technology and computation, creating new, interdisciplinary research areas. The AVATAR faculty are working to establish curricula and learning opportunities for students to study digital media at LSU.

Xin Li, a professor with CCT and the LSU Department of Electrical and Computer Engineering, will display examples of his research into shape mapping, which analyzes similarities between two unlike shapes. Shape-mapping is a useful tool to help scientists and artists alike analyze geometric data for patterns. Li has developed a shape-mapping paradigm that allows researchers to make comparisons between two objects in different dimensions, such as 1-D curves, 2-D surfaces, or 3-D solid objects.

The CCT booth will feature student work from the past semester’s video game design course, which LSU has offered since Fall 2007 in collaboration with the University of Illinois-Chicago. This year, the course featured an emphasis on creating games with multi-player, multi-touch capabilities.

Robert Kooima, a CCT post-doctoral researcher who conducts research as part of AVATAR, is the LSU instructor. He recently built a 52-inch TacTile LCD touch table that students can use to play and display their video games, giving them a place to
experiment with multi-touch gaming. Kooima will display the table and some of the top video games students produced this semester at the CCT booth during SIGGRAPH.

CCT also will screen “Best of the Fest” films from the 2009 Red Stick International Animation Festival, and will provide information about next year’s festival, which will take place May 12-15, 2010.

In addition to the booth, which will remain open during the exhibit portion of SIGGRAPH, three University researchers will give presentations as part of the talks and panels at the conference.

Beck, who also is a professor with the LSU School of Music, will speak during the music and audio sessions. He will describe his work with the University’s Immersive Computer-controlled Audio Sound Theater, or ICAST, a 27-channel surround sound system for performing electro acoustic music. ICAST is one of only a handful of large loudspeaker arrays in the United States, making it truly a unique asset to LSU. Beck will present his research paper, “The Immersive Computer-controlled Audio Sound Theater: History and Current Trends in Multi-Modal Sound Diffusion.”

Susan Ryan, a professor in the LSU School of Art, will give an Art Talk during SIGGRAPH. All of the SIGGRAPH 2009 Art Talks will be published in “Leonardo,” an arts journal. Ryan will speak as part of a panel on “Stitching it Together: Technology and Aesthetics in the Wearable and Natural.” Her talk examines the trend toward miniaturization of wearable technologies and their context in discourses on art and the body.

Kooima will speak during SIGGRAPH’s information aesthetics showcase, discussing his collaboration with Daria Tsoupikova of the University of Illinois at Chicago to produce a high-resolution, 3-D art reconstruction of a world-famous Russian heritage site, Kizhi. This work used the latest concepts and cutting-edge techniques in graphics and digital art.

For more information on the conference, please visit http://www.siggraph.org/s2009.

CCT in the News:
Professor Receives NSF Funding to Explore Alternative Energy Source
Source: HPC Wire

LSU professor gets grant to study energy source
Source: Daily Report

Please Note:

- Future ALL CCT meetings for summer and the Fall 2009 semester will take place
Aug. 26 (there will be a special presentation by LSU Intellectual Property at this meeting!), Sept. 23, Oct. 21, Nov. 11 and Dec. 16. All meetings are at 3 p.m. in Johnston 338 unless otherwise announced. Please make every effort to attend these important meetings.


- Registration is now open for the Supercomputing 2009 Education Program at the conference in Portland, which will take place Nov. 14-17. The Education Program helps educators and students learn more about computational science topics and gives educators ideas to bring these topics into their classrooms. The program is open to undergraduate faculty, undergraduate and graduate students, and high school teachers. To register or for more information, please visit [http://computationalscience.org/sc09](http://computationalscience.org/sc09).

- Please feel free to suggest nominees, including yourself, for the SC 09 Education Program Awards: [http://sc09.sc-education.org/opportunities/index.php](http://sc09.sc-education.org/opportunities/index.php). Contact Kristen Sunde at ksunde@cct.lsu.edu if you need assistance with this process. Award categories are:
  - The Dr. Robert M. Panoff Student Award for Explorations in Science Through Computation is open to high school, undergraduate, and graduate students exploring science made possible through computation. Deadline to apply is Monday, August 31, 2009.

- The SC09 Student Contest Program is accepting team registrations. This is a competitive programming event, where teams of no more than five students will be given eight to 12 problems from various scientific problem domain areas. The competition will take place Monday, Nov. 16 at the SC09 conference in Portland, Oregon. Awards will be announced on Tuesday, November 18 at an SC09 Education Program plenary session. Register your team today, [http://sc09.sc-education.org/conference/studentcomp_signup.php](http://sc09.sc-education.org/conference/studentcomp_signup.php). Deadline to register is Thursday, October 1, 2009.

- Please remember to send your news concerning grants, awards, conferences, or other pertinent information that should be communicated to CCT to PR Manager Kristen Sunde 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](http://www.cct.lsu.edu/about/grants/deadlines/events.php)

- Information and Intelligent Systems (IIS): Core Programs
• Computing and Communication Foundations (CCF): Core Programs
  August 30 2009 10:00 am
  At Most $ 3,000,000.00 available

• CISE Cross-Cutting Programs: FY 2010
  August 30 2009 10:00 am
  At Least $ 3,000,000.00 available