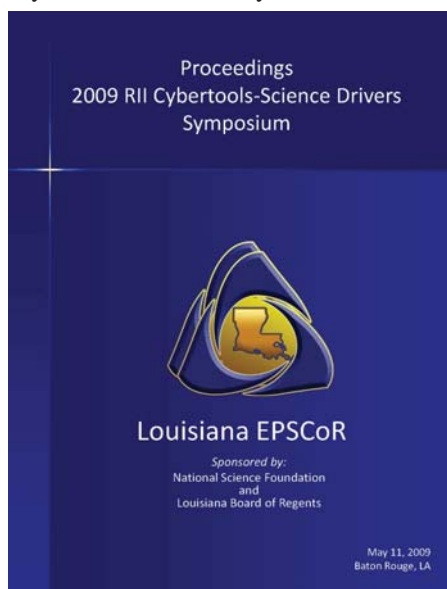




It's All About Discovery

Computing doesn't just *enhance* discovery, it *enables* discovery.



At least that's how it works in the LA EPSCoR trend-setting Research Improvement Infrastructure (RII) project, a.k.a.

CyberTools. Its guiding axiom: Cyberinfrastructure development must be guided by scientific questions and, conversely, the scientific strategies must include advanced cyberinfrastructure.

A recent CyberTools/Science Drivers Symposium was attended by over 100 undergraduate and graduate students, post-doctoral researchers, and university research faculty. Included in that number were a representative from the National Science Foundation (NSF), members of the RII External Review Board, university research administrators, and LA EPSCoR Committee members.

The focus was on the collaborative connections between the Science Drivers and CyberTools work packages.

Highlighting the program were interactive presentations, followed by discussions on 1) genosensors and small molecules; 2) computational research motivated by CyberTools; 3) immunosensors; and 4) biotransport computation and conversions.

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Collaborations Impress Reviewers



Dr. B. Vincent McKoy, RII External Review Board (ERB) Chair and Professor of Chemistry, California Institute of Technology.

Louisiana EPSCoR's Research Infrastructure Improvement Project, also known as CyberTools, received high marks from its out-of-state External Review Board. In its

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Over 100 undergraduate and graduate students, post-doctoral researchers, and university research faculty attended the symposium. Included were representatives from NSF, members of the RII External Review Board, LA EPSCoR Committee members, and university research administrators. Besides presentations on CyberTools/ScienceDrivers research interactions, the Symposium featured a poster competition, an outreach/education session and a publication highlighting the project's many collaborative undertakings.



Winners of the Symposium poster contest are, top left, Nikhil Shetty, first place; and Katharine Hamlington, bottom left, second place. Shown above is third-place winner Brian Novak, left, discussing his poster.

Poster Contest Winners Awarded Trip

The variety of disciplines involved in the CyberTools/Science Driver project was evident in the winners of the Symposium's student poster contest, which was judged by the RII External Review Board.

Nikhil Shetty, a computer science Ph.D. student at the University of Louisiana-Lafayette, won first place. His primary areas of interest are systems-programming/development/engineering, machine learning and High-Performance Computing in scientific computing/visualization.

The second place winner, Katharine Hamlington, a biomedical engineering Ph.D. student at Tulane University, works with her faculty adviser in computational fluid dynamics and is currently working on methods to compute flow fields.

Brian Novak, an LSU mechanical engineering post doctoral researcher, placed third. His primary research interests are equilibrium and non-equilibrium molecular dynamics simulations and coarse grained and multiscale simulations.

All three students were awarded a trip to a national conference in Washington D.C.

All About Discovery, Continued

An afternoon presentation included education/outreach programs offered by six of the participating universities.

A poster competition that attracted 44 entries was another highlight as was a 220-page publication, *2009 RII CyberTools-Science Drivers Symposium Proceedings*,

featuring over 40 collaborative research papers across Louisiana campuses participating in the project. Feedback from members of the External Review Board concluded the day-long meeting.

RII/CyberTools is funded by a three-year, \$9 million grant from the NSF EPSCoR program, \$3 million from the Board of Regents Support Fund and \$2.5 million from the nine participating universities.

The collaborating institutions are: Louisiana State University-Baton Rouge, Louisiana State University Health Sciences Center-New Orleans, Louisiana Tech University, Southern University-Baton Rouge, Tulane University, Tulane University Health Sciences Center, University of Louisiana-Lafayette, University of New Orleans, and Xavier University.

Reviewers, Continued

preliminary annual evaluation, the Review Board wrote the following:

"The scientific goals of this project are ambitious and the accomplishments have been impressive. It was very apparent that significant time and effort have been invested in forging productive links between the Science Drivers and the CyberTools Workpackages that lie at the core of this initiative..."

"The ERB wishes to specifically acknowledge the real and substantive collaborations among institutions. This RII (NSF Research Infrastructure Improvement grant) is clearly...serving as a transformative vehicle to bring the intellectual power of geographically dispersed researchers to bear on science technology and education to benefit the entire state."

External Review Board members were in Baton Rouge to attend the 2009 RII CyberTools-Science Drivers Symposium.