Louisiana EPSCoR
EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH VOL.5 NO.9 SEPTEMBER 2008

Filling the Gap with a Pfund Grant

Employers expect today's college and university graduates to become good problem solvers, effective decision makers, proficient systems and technical analysts, and collaborative team players.

Some experts are predicting that multimedia-based instructional systems based on real world situations will not only help meet those objectives, but will be responsible for 50 percent of personnel training in the coming decade.

Notwithstanding the growth of its use, assessment research on the impact of multimedia case studies on student learning is rare.

This fact prompted Dr. Victor Mbarika, Associate Professor and Director of Southern University's new International Center for Information Technology & Development, to propose using his Pilot Funding for New Research (Pfund) grant to help fill this gap.

His intent was to build upon his extensive experience in the use of multimedia technologies in the classroom to identify, retrofit and validate a battery of measures to understand how learning real world technical issues can be impacted through the use of multimedia case studies.

Dr. Victor Mbarika addressing an undergraduate Management Information Systems class in a Southern University multi-media lab. (Photo by John Oubre, SU Publications).

His methodology was the identification and modification of three assessment matrices to examine the effectiveness and impact of multimedia technology on the development of higher-level cognitive skills in students.

Based on his Pfund data, Dr. Mbarika was awarded a total of $660,000 in grants, including $500,000 from NSF and $120,000 from NASA.

A book that he coauthored, *Use of Information Technologies in Business and Society: Learning through Real-World Case Studies* was also finalized and published.

In addition, four journal/conference papers were published, and he has given presentations to the Association to Advance Collegiate Schools of Business in Orlando, FL and at an Addis Ababa, Ethiopia workshop.

Lousiana EPSCoR's PFund program gives tenured and tenure-track faculty the opportunity to enhance their research focus, explore new ideas and keep pace with cutting-edge techniques that can enable them to become more competitive in acquiring federal dollars. For details, see www.laregents.org.

Two Oversee LA EPSCoR Cyberinfrastructure

Two internationally known computer scientists, Drs. Gabrielle Allen and Jarek Nabrzyski, have been appointed Coordinators of the cyberinfrastructure building component of Louisiana EPSCoR's multi-million dollar National Science Foundation (NSF) Research Infrastructure Improvement (RII) project.

Dr. Nabrzyski, Executive Director of the Louisiana State University (LSU) Center for Computation and Technology (CCT), is also the new PI of the LONI Institute. Funded by the Board of Regents, it is a research collaborative of Louisiana's major research universities connected by LONI, the State's high-speed fiber optic network. At the LONI Institute, he replaces Dr. Edward Seidel, who was recently appointed Director of the NSF's Office of Cyberinfrastructure.

"As Coordinators, they oversee the creation of the infrastructure required to support current and future discoveries of the researchers," says Dr. Michael Khonsari, Project Director, LA EPSCoR program.

He adds that "the RII is rooted in the concept that cyberinfrastructure development must be guided by scientific questions and, conversely, the scientific strategies must include advanced cyberinfrastructure."

Dr. Allen

Dr. Allen, CCT's Assistant Director for Computing Applications, is a computational scientist, an area which she explains is "the interface between the scientific applications, computer science and

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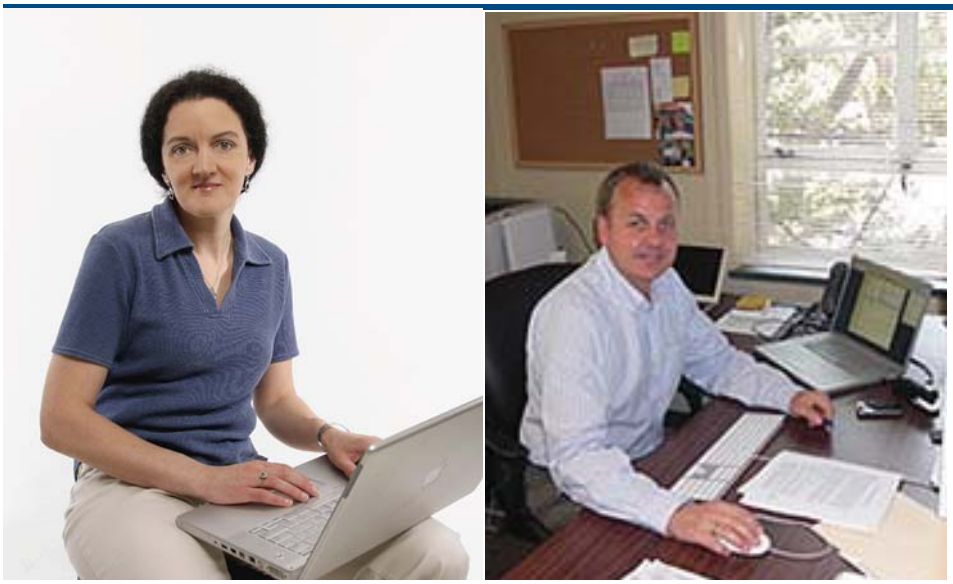

Drs. Gabrielle Allen, left, and Jarek Nabrzyski, new Coordinators of the Louisiana EPSCoR RII project's cyberinfrastructure building component.

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computational mathematics."

A native of England, Dr. Allen joined LSU in 2003. She earned her Ph.D. in computational astrophysics from Cardiff University in Wales and undergraduate degrees in mathematics and theoretical physics from Nottingham University and Cambridge University.

In her postdoctoral position at the Max Planck Institute for Gravitational Physics, also known as The Albert Einstein Institute, in Potsdam, Germany, she was the lead of the computer science area where she researched and developed techniques for high performance and grid computing.

Dr. Allen also served as the lead of the Cactus Code project, an internationally popular framework for parallel computing now widely used by scientists in a variety of fields throughout the world to support their large scale computing projects.

Dr. Nabrzyski

Dr. Nabrzyski, whose research specialties include distributed applications, operations research and Grid and high-performance computing, oversees the high performance computing environment at LONI. He is also Co-Principal Investigator (PI) of NSF's TeraGrid project and the European Commission's expert on Grid and distributing computing.

Prior to joining CCT, Dr. Nabrzyski spent over 13 years at the Poznan Supercomputing and Networking Center in Poland where he managed the scientific applications department.

He served as a PI or Co-PI of many international, European Union-funded projects, including the GridLab project that developed the Grid Application Toolkit and the GridSphere portal framework.

The mentor of several spin-off companies in Europe, he also established international partnerships to advance Grid computing networking and high-performance computing capabilities among academic and industrial organizations.

Dr. Nabrzyski earned his Ph.D. in computer science and a master's degree in information sciences from the Poznan University of Technology, as well as a diploma in management sciences from Poznan Academy of Economics.

The LA EPSCoR Research Infrastructure Improvement program is funded by the NSF EPSCoR program.

RII participating institutions include LSU, LSU Health Sciences Center-New Orleans, Louisiana Tech University*, Southern University-Baton Rouge*, Tulane University*, Tulane Health Sciences Center, University of Louisiana-Lafayette*, University of New Orleans* and Xavier University. Those with an * are also members of the LONI Institute.*

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