

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
DECEMBER 2006
GOOD NEWS

BIOLOGICAL SCIENCES

Dr. Steve Mercurio, Professor, has been invited to participate in "Global Warming and Sustainable Development: Governing a Crisis" at the Oxford Round Table at Harris Manchester College of Oxford, England from August 12-17, 2007.

CHEMISTRY AND GEOLOGY

Dr. Steven Losh, Assistant Professor, has been appointed as an Associate Editor for the Bulletin of the American Association of Petroleum Geologists (AAPG) for 2007-2008. AAPG has a worldwide membership of about 30,000.

ELECTRICAL AND COMPUTER ENGINEERING AND TECHNOLOGY

Dr. Vincent Winstead, Assistant Professor, has received a Faculty Research Grant this fall for \$5,000 to apply towards research in Cooperative Control of Autonomous Robotics.

Dr. Vincent Winstead and Dr. Bruce Jones, AMET Professor, gave a technical presentation on the Automotive and Manufacturing Engineering Technology Department's Plug-In Hybrid Prius Project to the members and visitors of Minnesota's Plug-In Hybrid Electric Vehicle (PHEV) Task Force at the United Auto Workers Union Hall in St. Paul, MN on November 17, 2006.

Dr. Qun Zhang, Assistant Professor, has received a Faculty Improvement Grant to attend short courses on Silicon Microphotonics, Biomedical Applications of Communications Techniques, Nanofabricated Photonic Devices, and Degrading Effects in WDM systems in Anaheim, CA. Professor Zhang has also received funding, through the recommendation of the Faculty Research Grant Committee, for his research efforts in the area of Bit-rate-error Calculation in Phase Modulated Fiber Optic Communication Systems.

Dr. Muhammad Khaliq, Professor, received a Faculty Improvement Grant to attend a short course of 32 nm CMOS Technology organized by IEEE in San Francisco, CA.

Dr. Gale Allen, Associate Professor, has had an abstract accepted for the 2007 Annual ASEE Illinois/Indiana Section Conference to be held March 30-31 at Indiana University, Purdue University, Indianapolis (IUPUI). The title of the paper is New Industrial Automation Laboratory & Courses, ECET Technology Program Improvement.

MATHEMATICS AND STATISTICS

Danielson, C. & Luke, M. (2006). If I only had one question: Partner quizzes in middle school mathematics. *Mathematics teaching in the middle school*, 25, (4), 206–213. It's a piece aimed at improving and expanding middle school math teachers' assessment practices.

Dr. Gary Rockswold, Professor, gave a colloquium entitled "Mathematics, Science, and Reality" at the University of Houston-Downtown on October 12, 2006.

Dr. Gary Rockswold gave a presentation entitled "Just How Much Power Does Mathematics Have?" at the national AMATYC meeting in Cincinnati on November 3, 2006.

MSU Math Club team (Harrison Quick, Chad Vidden, Eric Raymer) ranked 17th out of about 60 teams in the 2006 Mathematical Association of America NCS Math Contest. This is so far the best result for the last several years. The team coaches are Drs. Dan Singer and Namyong Lee.

PHYSICS AND ASTRONOMY

Dr. Hai-Sheng Wu, Professor, gave a talk, "*Recent Development in Producing High-Efficiency Flexible Silicon-Based Thin-Film Solar Cells*" on Thursday, November 2, at the Physics Colloquium of UW-EC (University of Wisconsin - Eau-Claire).

Dr. Russell Palma, Professor, is a co-author on a paper to be published December 18 in *Science*, "Isotopic compositions of cometary matter returned by STARDUST".

WATER RESOURCES CENTER

Dr. Shannon Fisher, Assistant Professor, continues to share joint directorship of the Water Resources Center and the Minnesota River Board. Through the Minnesota River Board, Dr. Fisher assisted two coalitions of local stakeholders to secure financial support for water quality projects. A group centered on efforts to improve water quality in the Crystal Lake area received \$49,300 for cost-share to improve tile intakes and ditch buffer strips and \$30,000 to support technical assistance. A group representing the Middle Minnesota River Watershed also received \$25,000 in technical assistance and a state allowance of \$340,000 for use as low-interest loan funds for septic system upgrades and conservation tillage equipment.

The WRC has entered into a contract with the Minnesota Pollution Control Agency to complete several interactive web tools addressing water quality education in the Minnesota River Basin. Kim Musser (WRC Assistant Director) and Steve Moe (GIS Research Analyst) will be coordinating the project. The project has three components: 1) completion of interactive hydrographs that visually demonstrate the relationship between rain events and water clarity in local waterways; 2) enhancement of the state's impaired waters website for the Minnesota River basin to facilitate the tracking of Total Maximum Daily Load studies and encourage networking among stakeholders; and 3) development of a series of aerial photography sequences that demonstrate the changes that have occurred in the channel morphology of the Minnesota River and its tributaries in relation to changes in the landscape and hydrology.