

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY**  
**DECEMBER 2008**  
**GOOD NEWS**

**BIOLOGICAL SCIENCES**

Dr. Marilyn Hart, Associate Professor, presented " How Biology Students Benefit from an Interdisciplinary Peer-Mentoring Cohort" at the American Society of Cell Biology 48th annual meeting, San Francisco, CA. Drs. Rebecca Bates (Computer Science), Deborah Nykanen (Mechanical and Civil Engineering) and Mezbahur Rahman (Mathematics) were co-authors.

**Mahoney, A.M.** and R.J. McKenzie. 2008. Notes on two southern African Arctotis species (Arctotideae: Asteraceae) growing in California. Madrono 55: 246-249.

Wandrie, Lucas J., **John D. Krenz**, & William E. Faber. *Ecology of Fisher (Martes pennanti) in Minnesota*. Oral presentation to the Minnesota Chapter of the Wildlife Society. (Lucas J. Wandrie is a graduate student under Dr. Krenz).

**COMPUTER SCIENCE**

Dr. Jie Wang, Assistant Professor, has had a paper published entitled *Privacy Preservation in Social Networks with Sensitive Edge Weights*. (co-authored) accepted by *2009 SIAM International Conference on Data Mining (SDM09)*. April 30-May 2, 2009, Sparks, Nevada.

Dr. Wang has also published the following: Wavelet-based Data Perturbation for Simultaneous Privacy-preserving and Statistics-preserving. (co-authored) accepted by *8th IEEE International Conference on Data Mining (ICDM 08) - Workshops, icdmw. the 2nd Workshop on Reliability Issues in Knowledge Discovery*. December 15, 2008, Pisa, Italy.

**ELECTRICAL AND COMPUTER ENGINEERING AND TECHNOLOGY**

Dr. Han-Way Huang, Professor, has had one textbook recently published. The title is *Embedded System Design with C8051* and the publisher is Cengage Learning.

Dr. Huang has received a donation of twenty Microcontroller demo kits "C8051Fo60TB" from Silicon Laboratory, to be used in our microcontroller courses. The donation is valued at approximately \$1,200.

Dr. Vincent Winstead, Assistant Professor, received a faculty research grant totaling \$4,963 from the MSU Office of Research and Sponsored Programs to develop a Robotic Tour Guide for use in conducting tours around campus.

Dr. Winstead received a Teaching Scholar Fellowship for Summer 2009 to develop simulation-based tools for the Power Systems curriculum in the ECET Department.

## **INFORMATION SYSTEMS AND TECHNOLOGY**

Dr. Mahbubur R. Syed, professor in the Department of Information Systems and Technology, edited the following two books during 2008:

- Mahbubur R Syed: *Multimedia Technologies – Concepts, Methodologies, Tools, and Applications*, Information Science Reference, ISBN 978-1-59904-953-3 (hardcover), 978-1-59904-954-0 (e-book), copyright 2008, 1966 pages.

More details of this book can be found at:

<http://www.amazon.com/Multimedia-Technologies-Concepts-Methodologies-Applications/dp/1599049538/> OR <http://www.igi-global.com/reference/details.asp?id=6948>

- Mahbubur R Syed & Sharifun N Syed: *Handbook of Research on Modern Systems Analysis and Design Technologies and Applications*, Information Science Reference (an Imprint of IGI Global), USA, ISBN 978-1-59904-887-1 (hard cover), 978-1-59904-888-8 (e-book), copyright 2009, 698 pages.

More details of this book can be found at

<http://www.amazon.com/Handbook-Research-Analysis-Technologies-Applications/dp/1599048876/> OR <http://www.igi-global.com/reference/details.asp?id=7739>

Dr. Syed served as a member of the program committee of the 11<sup>th</sup> International Conference on Computer and Information Technology held in Khulna, Bangladesh during 25-27 December 2008.

## **MATHEMATICS AND STATISTICS**

Danielson, C. (in press). Addition of fractions by means of common numerators. *Mathematics teaching in the middle school*, forthcoming.

Dr. I.-J. Kim, Assistant Professor, was invited to the American Institute of Mathematics Workshop on Nonnegative Matrix Theory: Generalizations and Applications, from December 1 to December 5, 2008 in Palo Alto, CA. A report on the workshop activities is available at

<http://www.aimath.org/pastworkshops/nonnegmatrix.html>.

Dr. Gary Rockswold, Professor, has published a textbook entitled *College Algebra with Modeling and Visualization, Fourth Edition*. This textbook is published by Addison-Wesley Publishing Company, Boston and is dedicated to the memory of our friend and colleague, Dr. Larry Pearson.

Dr. Roberto Carta joins us for one semester this spring in a fixed-term appointment to replace Dr. Larry Pearson, who died unexpectedly in August, 2008. Dr. Carta received his Ph. D. in Statistics from Carnegie Mellon University in 2002. He was a post-doctoral fellow in the Biostatistics Department at MD Anderson Cancer Center, University of Texas for two years. Since 2005, he has been a tenure-track assistant professor in the Statistics and Actuarial Science

Department at the University of Central Florida. He now lives in Maple Grove, MN.

### **MECHANICAL AND CIVIL ENGINEERING**

The Department of Mechanical and Civil Engineering is pleased to welcome Dr. Stephen J. Druschel as a new faculty member at Minnesota State Mankato. Dr. Druschel is a civil engineer for hazardous waste remediation, ecological restoration and urban construction. A construction manager, designer, and instructor, he has also researched in both geotechnical engineering and environmental microbiology. Dr. Druschel's professional practice has focused on achieving quality and performance for high-risk environmental construction projects. He has worked on projects in over forty states and is licensed as a professional engineer in ten states. In his most recent position, Dr. Druschel was a division manager with staff management and bottom-line financial responsibilities at Nobis Engineering, Inc. of Lawrence, MA, supporting state, Federal and commercial contracts.

Married for 23 years to his wife Margo, they have two children: Maggie, a freshman at the University of Vermont, and Henry, a junior in high school.

### **WATER RESOURCES CENTER**

The Minnesota River Board staff that are employees of the Water Resources Center, including Susie Carlin (MRB Program Director), Karnell Johnson (MRB Office Manager), and Shannon Fisher (MRB Executive Director) participated in a kick-off meeting for their collaboration that successfully wrote a Conservation Innovation Grant from the Natural Resource Conservation Service to establish a water quality credit trading network in the Minnesota River Basin and Sauk River Watershed. The Minnesota River Board, under the guidance of the Water Resources Center, received a grant worth just shy of \$1 million. As part of this grant, the Center and Board are partnering with local watershed organizations, Soil and Water Conservation Districts, sustainable agriculture groups from Wisconsin and Ohio, and water quality credit trading consultants from Michigan. The deliverables from this project will serve as guidance for the state of Minnesota, and surrounding states, on the establishment of water quality credit trading protocol.

The Water Resources Center was recently notified that the project "Evaluation of Artificial Drainage Roles in Altering Hydrology" submitted to the U.S. Environmental Protection Agency (EPA) 319 program for \$300,000 was recommended for funding. The Minnesota Pollution Control Agency (MPCA) received seventeen DER applications requesting three times the amount of grant money available. The MPCA, together with five other agencies, reviewed and scored each application carefully to determine the projects for funding. Your project was one of seven DER projects chosen to be funded this year.

The Science Museum of Minnesota, in partnership with the Water Resources Center, was also recently notified that the project "Does Intensified Tile Drainage

"Create More Erosive Rivers?" submitted to the Legislative-Citizen Commission on Minnesota Resources (LCCMR) by the Science Museum of Minnesota was selected for a funding recommendation from the Environment and Natural Resources Trust Fund (ENRTF) in the amount of \$300,000. In response to the 2009 LCCMR proposal process, 146 proposals requesting a total of approximately \$105.3 million were received. The LCCMR proposal process was very competitive but after careful consideration, the Commission is recommending thirty-three appropriations be made, of which this one is being recommended to the 2009 Minnesota Legislature.

The Water Resources Center and the Science Museum of Minnesota are collaborating on this project concerning the evaluation of artificial drainage roles in altering hydrology in Minnesota Rivers. Each entity pursued a funding source for the project and each project was selected for recommendation. The Water Resources Center is looking forward to working with the Science Museum of Minnesota on this project over the next three years, starting July 1, 2009.