

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
September 2009

GOOD NEWS

AUTOMOTIVE AND MANUFACTURING ENGINEERING TECHNOLOGY

Oxford University Press has published *Cases in Engineering Economy*, Second Edition by William R. Peterson and Ted G. Eschenbach.

BIOLOGICAL SCIENCES

The following paper was published in a special issue of *Global Change Biology* commemorating the International Polar Year. Day, T. A., **Ruhland** C.T., Strauss S.L., Park J.H., Krieg M., **Krna** M.A. and D.M. Bryant. (2009) Response of plants and the dominant microarthropod, *Cryptopygus antarcticus*, to warming and contrasting precipitation regimes in Antarctic tundra. *Global Change Biology* 15:1640-1651.

Deitloff, J., M. Falcy, J.D. Krenz, and B.R. McMillan. Correlating small mammal abundance to seasonal weather for twenty years. In Press: *Journal of Mammalogy*.

CHEMISTRY AND GEOLOGY

The Department of Chemistry and Geology held the 20th Annual Leonard A. Ford Lectureship on Monday, September 14, 2009. Dr. Kathleen Cox of the Schering-Plough Research Institute presented two talks.

Thomas Higgins, Harold Washington College, Chicago IL, Jeffrey R. Pribyl, Minnesota State University, Mankato, and Jamie Schneider, University of Wisconsin-River Falls, "An Introduction to POGIL for the Community College Classroom", presented at 185th 2YC3 Conference (Midwestern) and MnSCU CTL Discipline Workshop, Rochester, MN on September 26, 2009.

Drs. Mary Hadley and Jeff Pribyl, "Using Technology with Guided Inquiry to Improve Students Learning and Increase Efficiency", presented at 185th 2YC3 Conference (Midwestern) and MnSCU CTL Discipline Workshop, Rochester, MN September 26, 2009.

COMPUTER SCIENCE

A grant proposal entitled "Connection, Community, and Engagement in STEM Education (Large Empirical, Contextual Research Topics in STEM Education)" was funded by the National Science Foundation. The work will be done by Dr. Rebecca Bates, in collaboration with Denise Wilson, University of Washington, Melani Plett, Seattle Pacific University, Nanette Veilleux, Simmons College and Tamara M. Floyd-Smith, Tuskegee University. The MSU portion of the award is \$275,000 over five years. It is scheduled to start on September 15.

ELECTRICAL AND COMPUTER ENGINEERING AND TECHNOLOGY

As the first author, Dr. Qun Zhang has submitted a collaborative research paper "On the Gaussian Approximation and Margin Measurements for Optical DPSK Systems with Balanced Detection," to the IEEE and OSA joint *Journal of Lightwave Technology*.

As a result of a summer presentation at The Mathworks in Boston, Dr. Zhang received an instructor copy of Mathworks software Simulink for six months use as a reference to his own Graphic User Interface based simulation software in optical communications.

INFORMATION SYSTEMS AND TECHNOLOGY

In September, Dr. Christophe Veltsos gave a presentation entitled "Top Security Threats Against Stores & Field Offices" at the Data Privacy and Security Summit organized by the Minnesota chapter of the Better Business Bureau. Also in September, Dr. Veltsos attended ISO 27001 Lead Auditor Training.

Dr. Mahbubur R. Syed, Professor, served as a member of the Technical Program Committee of the 2009 International Workshop on Distance Education Technologies (DET 2009) held during September 10-12, 2009 in Redwood City, CA. The workshop was held concurrently with DMS2009, the International Conference on Distributed Multimedia Systems.

CONSTRUCTION MANAGEMENT

Construction Professional Development at 7700 France will debut this fall with the "Green Construction Exposures" seminar. The CM Advisory Board, with assistance from Ann Goebel's crew at 7700 and Patti Kramlinger, is presenting the seminar on October 14, from 1-4 pm. Robyn Goldy from Alumni, Linda Clavel and Eric Hoffman from Printing have all done exceptional work on advertising for the event. Over 50 CM students will attend the seminar, along with the faculty and advisory board members.

Green Construction Exposures

Presented by: Minnesota State University, Mankato
Construction Management Program

October 14, 2009
1:00 P.M. - 4:00 P.M.
7700 France Avenue, Edina



**CONSTRUCTION
MANAGEMENT**
MINNESOTA STATE UNIVERSITY, MANKATO

How to navigate safely around the new promises of sustainable construction
While we are aware of the importance sustainability has on the future of our buildings and construction, less is known about the unique risks that correspond with this "new green horizon." New issues arise concerning material performance, contractual obligations and insurance which need special attention. Our panel will present and discuss legal cases, contract clauses and protective products which may help us to sleep comfortably as we embrace the Green movement.

Presenters:

Dean Thomson Partner, *Fabyanske, Westra, Hart & Thomson PA*
Jerry Ouimet Sr. Vice President, *Willis of Minnesota Insurance*
Doug Pierce AIA, LEED AP, Sustainability Strategist, *Perkins + Will*
Ken Hilgert Blattner Energy
Don Kohlenberger Hightower Initiative

Cost is \$25.00 in advance, \$35 at the door.
Proceeds go to the Minnesota State Mankato Construction Management Program.

Register online <https://secure.mnsu.edu/alumni/transaction.asp?eventID=103> or by calling toll-free 1-888-234-3796.

Please be sure to include your name, Minnesota State University, Mankato class year (if applicable), preferred e-mail address and business title and company.

A member of the Minnesota State Colleges and Universities System.
Minnesota State Mankato is an Affirmative Action/Equal Opportunity University. Individuals with a disability who need a reasonable accommodation to participate in this event, please contact the Office of Alumni Relations at 507-389-3235 (V) or 800-627-3529 or 711 (MSU/TTY) at least five days prior to the day of the event.
This document is available in alternative format to individuals with disabilities by calling the above numbers.

The Construction Management Student Association kicked off the new year by holding their annual golf tournament at North Oaks Country Club on September 18. Students were able to raise over \$3000 at the event.



This photo shows four of our CM Alumni who came from across the state to join us for the annual golf tournament

MATHEMATICS AND STATISTICS

A research paper by Dr. I.-J. Kim, Assistant Professor, and Eryn Stehr, Fixed Term Faculty, with a SAMER (Student Association for Mathematical Experiences

in Research) student, Brendon Watts, has been accepted for publication: Y.-F. Chen, H.-L. Fu, **I.-J. Kim**, **E. Stehr** and **B. Watts**, “On the largest eigenvalues of bipartite graphs which are nearly complete”, to appear in *Linear Algebra and its Applications*.

Dr. Kim also has a paper with a SAMER student, Craig Erickson, which has been accepted for publication: **I.-J. Kim** and **C. Erickson**, “On Nilpotence Indices of Sign Patterns”, to appear in *Communications of the Korean Mathematical Society*.

Dr. Hongxia Yin, Associate Professor, “Error bounds of two smoothing approximations for semi-infinite minimax problems”, published in *ACTA Mathematicae Applicatae Sinica*, English Series , 25 (2009), pp685-696.

Dr. Hongxia Yin chaired a session on Portfolio and Option Problem and gave a talk titled “Robust Portfolio Selection with Maximum Risk Adjusted Return on Capital” at the 20th International Symposium of Mathematical Programming (ISMP) in Chicago, Illinois, USA, August 23–28, 2009 (This work is in cooperation with Daoyu Wu and Dr. Ernest Boyd.)

MECHANICAL AND CIVIL ENGINEERING

Dr. Stephen J. Druschel and Nancy E. Kinner (University of New Hampshire), “Rock Fragments in Trichloroethene Microcosms for Bedrock Aquifers”, *Bioremediation Journal*, Vol. 13, No. 3, pp 107-120.

Dr. Patrick Tebbe, Dr. Stewart Ross (CETL), and Dr. Jeff Pribyl (Chemistry) have received a NSF Course, Curriculum, and Laboratory Improvement Phase II grant for \$422,756 entitled "Full Development of Engineering Scenarios to Promote Student Engagement in Thermodynamics Related Courses".