

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY**  
**DECEMBER 2003**  
**GOOD NEWS**

**AUTOMOTIVE AND MANUFACTURING ENGINEERING TECHNOLOGY**

The Minnesota Corn Research and Promotion Council has just awarded Mr. Gary Mead, Assistant Professor, and Dr. Bruce Jones, Professor, of the AET program, a \$15K grant to continue their work on EB-Diesel. EB-Diesel is a blend of ethanol, bio-diesel and regular petroleum diesel fuel. Their past work has demonstrated that blends including ethanol and bio-diesel have reduced exhaust emissions and also particulate materials. This project will focus on trying to identify the optimum blend of the three fuels based on performance, emissions and economic characteristics.

**BIOLOGICAL SCIENCES**

Dr. Daryl Adams, Professor, will be presenting a paper entitled "The Concept of a Concept: Where Communication can Fail" at the International Business Communication meeting December 10, 2003 in Auckland, New Zealand. He will also be meeting with a director of distance learning at Otago University in Dunedin, New Zealand on December 8, 2003 and with the Director of the Science Outreach Program at Auckland University in Auckland, New Zealand on December 15th.

On Friday November 21, Dr. Bob Sorensen presented an after-school workshop on "Bugs and Other Things Without Backbones", at the Blue Earth County Library, for twenty third and fourth graders and their parents. Jackie Vida, a Biology/Education major who is enrolled in BIOL 316, assisted with this well-received presentation.

**COMPUTER AND INFORMATION SCIENCES**

Professor Lee Cornell has been selected to be the Lead Faculty Facilitator for MnSCU's Program Collaboration and Transfer in the discipline of computer and information systems. This is a part-time appointment for Spring Semester.

**ELECTRICAL AND COMPUTER ENGINEERING AND TECHNOLOGY**

Sponsored by the MNSU student branch of IEEE, about 30 students and one faculty member from the Department of Electrical and Computer Engineering and Technology were given a tour of EI Microcircuits in Mankato on Friday, November 14.

The MNSU student branch of IEEE sponsored approximately 30 students and one faculty member from the Department of Electrical and Computer Engineering and Technology to attend a presentation by an Air Force recruiter regarding opportunities in the Air Force for electrical and computer engineers on Thursday, November 20.

Sponsored by the MNSU student branch of IEEE, 10 students from the Department of Electrical and Computer Engineering and Technology attended the Southern Minnesota Section meeting of IEEE in Rochester where they heard a talk on nanotechnology for the optical internet on Wednesday, November 19.

The MNSU student branch of IEEE sponsored 10 students and one faculty member from the Department of Electrical and Computer Engineering and Technology for a tour of the GE Wind Energy windmill farm in Lake Benton on Friday, November 21.

On November 15 the executive committee of the IEEE Student Branch at MNSU-Mankato was given a leadership training seminar (about 3 hours) by Jim Reiss the regional IEEE student training leader.

### **INTERIOR DESIGN AND CONSTRUCTION MANAGEMENT**

Dr. Carl Egan, Associate Professor, returned from a two week trip to China on November 16, as a member of the People to People Ambassador Program Alumni Delegation. The delegation re-visited the Three Gorges Dam construction project which began in 1993. The second phase was completed this year and the total project is scheduled for completion in 2009.

On November 14, Dr. Carl Egan, Associate Professor of Construction Management, attended a "thank you" breakfast meeting hosted by Advisory Board member Jim Neilson of Lennar Family of Builders. Mr. Neilson was the driving force in obtaining pledges from 46 contractors and material suppliers to cover the production and distribution costs of a marketing brochure being mailed to thousands of high school juniors and seniors. Dr. Egan thanked them for pledging \$58,000, providing internship and employment opportunities, and enhancing the image of the program.

### **MATHEMATICS AND STATISTICS**

A paper co-authored by Dr. Mezbahur Rahman has been accepted for publication. The reference is as follows: Heien, Herbert C., Baumann, William A. and Rahman, Mezbahur (2004), An Application of Logistic Regression in Estimation and in Prediction, Pakistan Journal of Statistics, Vol. 20 (1), pp. 37-47.

On Saturday, November 16, the MSU Math Club entered two teams into this year's math contest sponsored by the North Central Section of the Mathematical Association of America. The participants were Amanda Rosen, Ben Pischke, and Chris Fair, representing the Fibonacci Rabbits, and Eric Raymer and S. Shresta representing Team ES.

### **MECHANICAL AND CIVIL ENGINEERING**

Dr. W. James Wilde, P.E., Assistant Professor, will be making a presentation at the 50th Annual Meeting of the Minnesota Asphalt Paving Association on December 2. The presentation consists of preliminary results of a research project funded by the Local Road Research Board on the formation of bumps and reflective cracks in newly overlaid asphalt concrete pavement. On November 20, Dr. Wilde briefed the MnDOT Materials Engineers Organization on the same topic.

Dr. Karen Chou, Associate Professor, presented a paper at the Frontier in Education Conference in Colorado in November. The paper, entitled "Integrating Major Design Experience throughout a Small Civil Engineering Program", was co-authored by Dr. Karen Chou and Dr. James Wilde, Assistant Professor both.

The MSU ASCE Student Club co-hosted the Minnesota Section ASCE monthly meeting on November 20 in Mankato. The meeting was attended by about 50 engineers and students. The topic was on "Wind Energy Issues Today and Tomorrow". This is only the second Minnesota Section ASCE meeting that was held outside of the Twin Cities. Both were co-hosted by MSU ASCE Student Club.

### **PHYSICS AND ASTRONOMY**

Dr. Paul Eskridge, Assistant Professor, has been invited by the International Scientific Organizing Committee to deliver a talk entitled "Quantifying Bar Strength: Morphology Meets Methodology" at the forthcoming Astronomy Conference, "Penetrating Bars through Masks of Cosmic Dust: The Hubble Tuning Fork Strikes a New Note". The conference takes place in South Africa in June 2004.

Keith Lidke, an MSU graduate in physics, recently received a Ph.D. in experimental condensed matter physics from the University of Minnesota, and is now working as a post-doc at the prestigious Max Planck Institute for Biophysical Chemistry in Goettingen, Germany.