



Faculty/Staff

Accomplishments 2007–2008

Tony Adami, *research engineer, Avionics Engineering Center*, and **J. Jim Zhu**, *professor, School of Electrical Engineering and Computer Science*, co-authored and presented "Control of a Flexible, Hypersonic Scramjet Vehicle Using a Differential Algebraic Approach," at the AIAA Guidance, Navigation and Control Conference in Honolulu, Hawaii, August 2008.

Khairul Alam, *Moss Professor, Department of Mechanical Engineering*, was named a fellow of the American Society of Mechanical Engineering for demonstrating significant engineering achievements and contributions to the engineering profession.

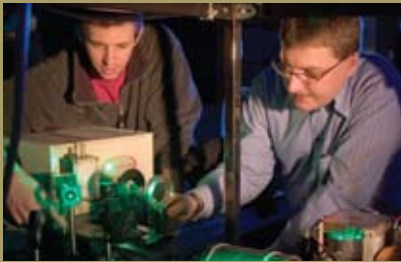
David J. Bayless, *Loehr Professor, Department of Mechanical Engineering*, was named a fellow of the American Society of Mechanical Engineering for his efforts to improve power generation efficiency and remediate air pollution.

Michael F. DiBenedetto, *senior research program engineer, Avionics Engineering Center*, co-authored and presented "Initial Federal Aviation Administration (FAA) Flight Inspection Criteria for Precision Instrument Approach Procedures Supported by the Local Area Augmentation System (LAAS)," at the IFIS Conference in Oklahoma City, Okla., June 23–25, 2008.

David Diggle, *retired assistant director of avionics*, received:

- The president's award from the International Loran Association for his outstanding contributions to Loran-C, both for his technical efforts to demonstrate acceptable Loran-C performance in aircraft and his efforts to inform the international navigation community of the capabilities of Loran
- Best paper award at the 2006 International Loran Association's Technical Symposium in October, for "Recent Ohio University Loran-C Atmospheric Noise Flight Test Results" (co-author).

B.J. Galloway, *associate professor, Department of Aviation*, was appointed chair of the Department of Aviation.



Wojciech M. Jadwisieniczak (*at right*), *associate professor, School of Electrical Engineering and Computer Science*:

- Received an \$8,000 Ohio University Research Committee award for "Development of a Multimode MOKE System for Magneto-Optical Studies of Magnetic Thin Films and Layered Structures"
- Co-authored and presented "Spectroscopy of AlN Epilayers Implanted with Ytterbium Ions" at the 7th International Symposium on Semiconductor Light Emitting Devices in Phoenix, Arizona, April 27–May 2, 2008.

Robert Judd, *chair, Department of Industrial and Systems Engineering*:

- Co-authored "Identifying and Removing Error in Hierarchical Cost Estimates," *International Journal of Production Economics*, pp. 41–52, Sept. 2007
- Served as the general chair for the American Controls Conference in New York City, July 2007. A record 1,300 attendees participated in the three-day international conference that hosts controls experts from major engineering societies.

Savas Kaya, *associate professor, School of Electrical Engineering and Computer Science*:

- Served as a member of Program Committee for SPIE Photonics East Symposia: Nanophotonics for Communication (IT407) & Nanomaterials (SA114) in Boston, Mass., Sept. 9–12, 2007
- Co-authored "Exploration of Na⁺, K⁺-ATPase Ion Permeation Pathways via Molecular Dynamic Simulation and Electrostatic Analysis," *J Computational Electronics*, 2008.

Avinash Kodi, *assistant professor, School of Electrical Engineering and Computer Science*, co-authored "iDEAL: Inter-Router Dual-function Energy and Area-efficient Links for Network-on-Chip (NoC) Architectures," *International Symposium on Computer Architecture*, Beijing, China, June 21–25, 2008.

David Koonce, *associate professor, Industrial and Systems Engineering*, co-authored:

- "Identifying and Removing Error in Hierarchical Cost Estimates," *International Journal of Production Economics*, pp. 41–52, Sept. 2007
- "A Neural Network Job-Shop Scheduler Based On Knowledge Extraction from a Genetic Algorithm," *Journal of Intelligent Manufacturing*, Vol. 19 (2), pp. 191–201, 2008 (with Gary Weckman, associate professor, Industrial and Systems Engineering).

Christy Lee, *budget unit manager, Dean's Office*, was selected outstanding Ohio University administrator for 2008.

Jundong Liu, *assistant professor, School of Electrical Engineering and Computer Science*:

- Presented "Level Set Segmentation Methods for Brain MR Image" to the Electrical Engineering and Computer Science Department at Case Western Reserve University, Nov. 2007
- Authored a book chapter, "Deformable Models for Biomedical and Clinical Applications," *Deformable Models*, Springer: New York, 2007.

Joan Mace, *professor and chair emerita, Department of Aviation*, was inducted into the National Flight Instructor Hall of Fame in October. Sponsored by the National Association of Flight Instructors, the hall of fame recognizes the individuals who have made significant regional or national-level contributions to aviation education and flight instruction while reflecting credit upon themselves and their profession. Mace, who has 65 years of aviation experience and was the first

female chair of a university aviation department, started flight instructing in 1946 at Ohio University and later became one of only 60 women in the country to hold a multiengine airline transport pilot certificate.

David Matolak, *associate professor, School of Electrical Engineering and Computer Science*, authored "Channel Modeling for Vehicle-to-Vehicle Communications," *IEEE Communications Magazine*, vol. 46, no. 5, May 2008, and presented:

- "FG-MC-CDMA System Performance in Multi-band Channels" at the 6th IEEE Annual Conference on Communication Networks & Services Research Conference in Halifax, Nova Scotia, Canada, May 5–8, 2008
- "V2V Channels and Performance of Multi-user Spread Spectrum Modulation" at the IEEE 1st International Symposium on Wireless Vehicular Communications in Baltimore, Md., Sept. 30–Oct. 1, 2007; the paper was also selected as one of five to appear in an upcoming special issue of *IEEE Vehicular Technology Magazine*.

Srdjan Nesic, *professor, Department of Chemical and Biomolecular Engineering*, was named a fellow of NACE International for his dedication to corrosion research and his commitment to corrosion education, especially in the areas of CO₂ corrosion mechanisms and modeling. NACE, with more than 17,000 members in 100 countries, has named only 150 fellows to date.

James Rankin, *associate dean for research, graduate studies and planning, Dean's Office*, was honored by the American Institute of Aeronautics and Astronautics (AIAA) with the Dr. James Rankin Digital Avionics Scholarship for his service from 2004 to 2008 as chair of AIAA's digital avionics technical committee.

R. Guy Riefler, *assistant professor, Department of Civil Engineering*:

- Co-authored "Estimating Treatment Capacity of Nanoscale Zero-Valent Iron Reducing 2,4,6-trinitrotoluene," *Journal of Environmental Engineering and Science* (in press)
- Presented "Development of an Innovative Treatment Technology for the Truetown AMD Discharge" for the Ohio Department of Natural Resources: Applied Research Conference in Athens, Ohio, Dec. 4–5, 2007.

Diana Schwerha, *assistant professor, Department of Industrial and Systems Engineering*:

- Co-authored "Effect of Distractors, Age, and, Level of Education upon Psychomotor Task Learning," *International Journal of Industrial Ergonomics*, vol. 37, pp. 801–809, 2007
- Co-presented "Second Life as a Pedagogical Tool for Improving Statistics Homework Sessions" at the American Society for Engineering Education (Zone 1) Conference in West Point, N.Y., March 28–29, 2008.

Tim Sexton, *professor, Department of Industrial and Systems Engineering*, was granted the distinguished service award in June by the American Society for Engineering Education's engineering design graphics division; and authored the introductory engineering graphics textbook *Engineering Graphics: Theory and Problems* (Schroff, 2006) with workbook and PowerPoint sets. Students assisted with the hundreds of illustrations.

Liming Shi, *research assistant professor*, co-authored "Analysis of Jet Fuel Reforming for Solid Oxide Fuel Cell Applications in Auxiliary Power Units," *International Journal of Hydrogen Energy*, 33, pp. 1067–1075, 2008.

Janusz Starzyk, *professor, School of Electrical Engineering and Computer Science*, co-authored:

- "Optimized Approximation Algorithm in Neural Network without Overfitting," *IEEE Transactions On Neural Networks*, vol. 19, no.4, April 2008
- "Topological Analysis and Diagnosis of Analog Circuits," *Wydawnictwa Politechniki Slaskieg*, p.140, March 2008.



Gursel A. Suer (at left), *professor, Department of Industrial Systems Engineering*, co-authored:

- "Bi-objective cell loading problem with non-zero setup times with fuzzy aspiration levels in labour-intensive cellular manufacturing,"

International Journal of Production Research, vol. 46 (2), pp. 371–404, 2008

- "Multi-period operator assignment considering skills, learning, forgetting in labour-intensive cells," *International Journal of Production Research*, vol. 46 (2), pp.469–493, 2008.

Maarten Uijt de Haag, *associate professor, School of Electrical Engineering and Computer Science*, co-authored "Synthesis of Airborne Laser Measurements for Navigation Algorithms," *IEEE Sensors Journal*, Vol. 8 (8), August 2008.

Gary Weckman, *associate professor, Department of Industrial and Systems Engineering*, co-authored:

- "Health Effects of Nanomaterials: A Critical Appraisal Approach and Research to Practice," *Human Factors and Ergonomics in Manufacturing*, Vol. 18 (3), pp. 293–341, 2008.
- "The Factors Affecting Healthcare Costs in Manufacturing," *Human Factors and Ergonomics in Manufacturing*, Vol. 18 (2), pp. 199–211, 2008.

Robert L. Williams, *professor, Department of Mechanical Engineering*, co-authored:

- "Palpatory Diagnosis Training on the Virtual Haptic Back: Performance Improvement and User Evaluations," *Journal of the American Osteopathic Association*, pp. 29–36, 2008.
- "Device for Measurement of Human Tissue Properties in Vivo," *ASME Journal of Medical Devices*, pp. 197–05, 2007.

J. Jim Zhu, *professor, School of Electrical Engineering and Computer Science*, co-authored and presented:

- "Continuous-time Nonlinear System Identification using Neural Network" at the 2008 American Control Conference in Seattle, Wash., June 11–13, 2008.
- "Stability Metrics for Simulation and Flight-Software Assessment and Monitoring of Adaptive Control Assist Compensators" at the AIAA Guidance, Navigation and Control Conference in Honolulu, Hawaii, August 2008. ☺