

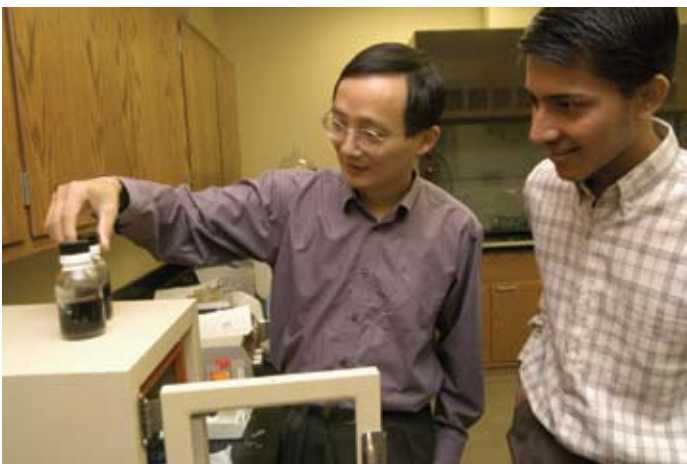
# Russ College Faculty and Staff Accomplishments

**Deak Arch**, *assistant professor, Aviation*, co-presented “The Use of Technology in Collegiate Aviation Programs” at the Sixth annual Oklahoma Aviation Education Symposium, April 19, 2006, Oklahoma State University.

**Tom Arthur**, *research engineer, Avionics Engineering Center*, authored “The Disparity of Parity, Determining Position Confidence Bounds in the Presence of Biases,” Proceedings of the ION GNSS Conference, September 12–13, 2005, and submitted “Media Divergence in Idea Linear Phased Arrays” to the IEEE APS '06 Conference.

**Dave Diggle**, *associate director, Avionics Engineering Center*, was appointed to a one-year term on the International Loran Association’s board of directors.

**J. Ludwig Figueroa**, *professor, Civil Engineering*, was elected as a fellow of the American Society of Civil Engineers, and was elected to the editorial board of the American Society of Civil Engineers’ *Journal of Geotechnical and Geoenvironmental Engineering*.



Associate Professor of Chemical Engineering Tingyue Gu explains microbiologically induced corrosion, which is caused by microbes that grow in seawater in undersea pipelines, to former master's student Chintan Jhobalia, M.S. '05.

**Tingyue Gu**, *associate professor, Chemical Engineering*, co-authored:

- “Production of Recombinant Plant Gum With Tobacco Cell Culture in Bioreactor and Gum Characterization,” *Biotechnology and Bioengineering*, vol. 90, pp. 578–588, 2005.
- “Bioprocess Strategies to Improve Heterologous Protein Production in Filamentous Fungi,” *Biotechnology Advances*, vol. 23, pp. 115–129, 2005.

(The other author was **Darin Ridgway**, *assistant professor, Chemical Engineering*.)

- “Data Acquisition and Control of A 22-L B. Braun Fermenter Using LabVIEW,” *Chemical Engineering Communications*, vol. 192, pp. 137–144, 2005.

**Sanjeev Gunawardena**, *research engineer, Avionics Engineering Center*, **Andrey Soloviev**, Ph.D. '02, *research engineer*, and **Frank Van Graas**, *Russ Professor, Avionics Engineering Center*, co-authored “Wideband Dual-Frequency Transform-Domain GPS Instrumentation Receiver for Signal Quality and Anomalous Event Monitoring,” Proceedings of the 61st Annual Meeting of the Institute of Navigation, June 27–29, 2005, Cambridge, MA.

**Jundong Liu**, *assistant professor, Electrical Engineering and Computer Science*, worked as an endowed visiting assistant professor at the University of Kentucky during the summer of 2006. He also:

- Co-authored “A Unified Framework for Segmentation-Assisted Image Registration,” *Asian Conference on Computer Vision 2006*: 405–414.
- Authored “A Hybrid Multi-phase Level Set Method for Image Segmentation,” Workshop on Applications of Computer Vision of ECCV, May 2006, Graz, Austria.
- Authored “Robust Image Segmentation using Local Median,” Third Canadian Conference on Computer and Robot Vision, June 2006, Quebec City, Canada.

**D. W. Matolak**, *associate professor, Electrical Engineering and Computer Science*, gave an invited talk in March 2006 to the electrical engineering department at Penn State University titled “Wireless Channel Characterization for Reliable Communications on the Airport Surface.” He also:

- Presented an invited paper in July 2006 at the IEEE Vehicle-to-Vehicle Communications workshop in San Jose, California, entitled “Channel Modeling for V2V Communications.”
- Authored “TDMA and CDMA Capacities in Air-Ground Communications,” *AIAA Journal of Aerospace Computing, Information, and Communication*, vol. 3, no. 7, pp. 340–353, July 2006.
- Co-Authored “Spectrally-Shaped Generalized Multitone Direct-Sequence Spread Spectrum,” *IEEE Trans. Vehicular Tech.*, vol. 55, no. 4, pp. 1224–1238, July 2006.

**Charles Overby**, *emeritus professor, Industrial and Systems Engineering*, has been involved with peace and justice and green technology by design for 35 years. Recently, he:

- Presented a paper in Guernica, Spain, May 2005.
- Participated in a three-week, invited lecture tour on the Japanese islands of Hokkaido and Honshu, July 2005.

- Wrote the book chapter “The Treasure of Japan’s Article 9: The World’s Foremost Law For Peace, Justice, and Nonviolent Conflict Resolution,” Boersema, David, and Brown, Katy Gray (editors), *Spiritual and Political Dimensions of Nonviolence and Peace*, Rodopi, Amsterdam, New York, June 2006.

**Valerie Pettit**, *administrative associate*, received the Certified Professional Secretary rating through the International Association of Administrative Professionals.

**Dave Quinet**, *program engineer*, and **Simbo Odunaiya**, *senior research engineer, Avionics Engineering Center*, co-authored “Analysis of ILS Receiver Output Data and Comparison to U.S. Flight Inspection Tolerances, presented at The Digital Avionics Systems Conference,” November 2005, Washington, D.C.

**James Rankin**, *director, Avionics Engineering Center*, was selected to be an associate fellow of the American Institute of Aeronautics and Astronautics (AIAA). He also is a member of the:

- AIAA Educational Series’ editorial advisory board, in the general area of avionics.
- National Institute of Aeronautics’ (NIA) “Survey of Small Aircraft Transportation System/General Aviation Research.”
- National Research Council’s Steering Committee for the Decadal Survey of Civil Aeronautics, Panel D: Dynamics, Navigation and Control and Avionics.

**R. Guy Riefler**, *assistant professor, Civil Engineering*, co-authored:

- “Capillary electrophoresis single-strand conformation polymorphism analysis for monitoring soil bacteria,” *Journal of Microbiological Methods* 60(1): 83–92.
- “Recommendations for redevelopment of a vertical flow wetland system impacted by biofouling,” ARC Symposium, December 14–15, 2005, Athens, Ohio. (One of the other authors was Ben Stuart, *professor and assistant chair, Civil Engineering*.)
- “Grass phytoremediation: Explosives uptake kinetics and fate in decomposing plant tissue,” 21st Annual International Conference on Sediment and Contaminated Soils, October 15–20, 2005, Amherst, MA.
- “Laboratory studies of the feasibility and optimization of perchlorate biodegradation,” Eighth International In Situ and On-Site Bioremediation Symposium, June 6–9, 2005, Baltimore, MD.

**Andrey Soloviev**, Ph.D. ’02, *research engineer, Avionics Engineering Center*, was chosen from the worldwide pool of navigation professionals to receive the Institute of Navigation’s 2006 Early Achievement Award, which recognizes an individual 35 years or younger who has made an outstanding achievement in the art and science of navigation.

**Eric Steinberg**, *associate professor, Civil Engineering*, was awarded the Precast/Prestressed Concrete Institute’s Central Region 2005 Professor of the Year Award (from the Central Region of PCI, which includes Ohio, Michigan, Indiana, Kentucky, Tennessee and parts of Pennsylvania, Illinois, and West Virginia) and the PCI Distinguished Educator Award (from PCI national, which includes the entire United States). He also co-authored and presented “Analysis Ultra High Performance Concrete Bridge Girders,” at the PCI National Bridge Conference, October 17–19, 2005, Palm Springs, CA.

**Ben J. Stuart**, *associate professor and assistant chair, Civil Engineering*, authored *Environmental Engineering: FE/EIT Exam Preparation*, Kaplan AEC Education, July 2005.

**Frank Van Graas**, *Russ Professor*, **Andrey Soloviev**, Ph.D. ’02, *research engineer*, and **Sanjeev Gunawardena**, *research engineer, Avionics Engineering Center*, received a U.S. patent for “Systems and Methods for Acquisition and Tracking of Low CNR GPS Signals,” April 6, 2006.

**Ralph D. Whaley, Jr.**, *assistant professor, Electrical Engineering and Computer Science*, presented “Development of Amorphous Silicon Photonic Platforms” at the SPIE Great Lake Photonics Symposium, June 12–16, 2006, Dayton, Ohio.

**Robert L. Williams II**, *professor, Mechanical Engineering*:

- Served as the paper review coordinator for the Robotics Applications Sessions of the 2006 ASME International Design Technical Conferences in Philadelphia, PA. He also co-authored two papers for this conference.
- Served as the coach for the Athens Middle School MathCounts team, which placed first in regional competition and 10th in the state competition.
- Authored “Novel Cable-Suspended RoboCrane Support,” *Industrial Robot: An International Journal*, 32(4): 326–333.
- Co-presented “The Virtual Movable Human Upper Body for Palpatory Diagnostic Training,” SAE Digital Human Modeling Conference, Lyon, France, July 4–6, 2006.

**Carole Womeldorf**, *assistant professor, Mechanical Engineering*:

- Authored and presented “Hold Paramount: Designing an Engineering Education to Open Minds and Serve the Public Good” at the American Society of Engineering Education Annual Conference, June 20, 2006, Chicago, IL.
- Appointed to the Department of Chemical and Biomolecular Engineering Graduate Faculty in the areas of energy and the environment.



Administrative Associate Valerie Pettit helps out a Russ College student in the dean’s office.

**Valerie Young**, *associate professor and department chair, Chemical and Biomolecular Engineering*, is chair-elect of the Chemical Engineering Division of the American Society for Engineering Education for 2007–2008. 🍷