



Recent External Research Awards

For 2007–2008, the Russ College reported \$12.1 million in research and sponsored programs. Highlights of recent awards, listed with the researcher name(s) and affiliation(s), are:

Khairul Alam (Center for Advanced Materials Processing): \$50,067 from Material Innovations, Inc., for the hybrid enclosure program.

Khairul Alam and Rudy Pasic (Center for Advanced Materials Processing): \$95,909 from Applied Sciences, Inc., for the development of low-cost conducting polymer for electrostatic precipitators.

Tom Arthur (Avionics Engineering Center): \$92,000 from a leading products and services company for an antenna baseline and attitude measurement systems feasibility study for the unmanned aerial vehicle.

Tom Arthur and Kevin Johnson (Avionics Engineering Center): \$17,038 from Athena Technologies/Rockwell-Collins, for testing of INS/GPS/ADAHRS units using the L-29 Delfin jet.

Michael Braasch (Avionics Engineering Center): \$25,000 from Honeywell Inc., for inertial navigation GPS/DGPS studies.

Michael Braasch (Avionics Engineering Center): \$100,000 from the FAA for integrated avionics technology development.

Michael DiBenedetto (Avionics Engineering Center): \$159,000 from the FAA for the development of automatic dependent surveillance-broadcast/flight inspection requirements methodologies and procedures.

Jamie Edwards/Aaron Wilson (Avionics Engineering Center): \$75,409 from Thales ATM Inc. for the EFGS installation and optimization at the Los Angeles International Airport.



Associate Professor of Civil Engineering **Eric Steinberg** and **Aziz Gulistani**, a participant in the Afghan Merit Scholar program, use software to model complete bridge systems in an Ohio Department of Transportation project aimed at assessing the effect of deteriorated bridge beams. Gulistani is one of seven participants in the Afghan Merit Scholars Program, in which faculty from Kabul and Kabul Polytechnic universities are pursuing master's degrees in civil, mechanical, or electrical engineering.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$8,313 from the University of California to expand a proof-of-concept software engineering simulation environment into a comprehensive classroom approach for educating software students.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$11,000 from Net2Net Solutions Phase II for Net2Net's IRMC Second Life building project.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$13,500 from The Princeton Review for The Princeton Review Second Life project.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$2,000 from the Ohio Commission on Minority Health to use 3-D virtual environments to raise awareness of the benefits of being healthy.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$19,595 from Filene Research Institute Credit Union for the Second Life teen grid project "Lost in BC."

Chang Liu (Center for Advanced Software Systems Integration): \$10,000 from Shawnee State University for using Second Life as a pedagogical tool for improving statistics homework.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$6,000 from Shawnee State University for the Appalachian Ohio Second Life professional learning community.

Chang Liu (Center for Intelligent, Distributed, and Dependable Systems): \$150,000 from Members United Corporate Federal Credit Union for the Second Life teen financial project.

Jundong Liu (Center for Intelligent, Distributed, and Dependable Systems): \$21,308 from the University of Kentucky for advanced image segmentation and registration techniques for magnetic resonance.

Dale Masel (Industrial and Systems Engineering): \$7,000 from Order Fulfillment Council Development for a classroom module.

Dale Masel, Bob Judd, and Dušan Šormaz (Center for Advanced Software Systems Integration): \$404,623 from General Electric Corporation for cost modeling.

Simbo Odunaiya (Avionics Engineering Center): \$50,242 from the Norfolk Airport Authority for computer modeling of the Navaid's systems at Norfolk International.

Simbo Odunaiya (Avionics Engineering Center): \$44,092 from CH2M Hill Inc. U.S. Army Engineering District for design services for the second runway at Osan Air Base.

Simbo Odunaiya/David Quinet (Avionics Engineering Center): \$32,413 from Airservices Australia for ILS/VOR simulation tool training and licenses.



Simbo Odunaiya (Avionics Engineering Center): \$35,977 from Zimmer Gunsul Frasca Architects, LLP, for the analysis and mitigation of multipath effects on runway 10R at Portland International Airport.

Simbo Odunaiya (Avionics Engineering Center): \$54,605 from CH2M Hill Inc. for the Dulles International Airport runway 1C-19C project.

Simbo Odunaiya (Avionics Engineering Center): \$34,903 from Eurus Crescent Ridge II, LLC to predict degradation to the Bradford, Ill., VHF omnidirectional radio range caused by a proposed eurus energy wind power generating farm.

Simbo Odunaiya (Avionics Engineering Center): \$7,565 from the Columbus Regional Airport Authority for radar comparison analysis.

David Quinet (Avionics Engineering Center): \$5,795 from Rockwell-Collins for steep angle certification test flights of the Cessna Citation Excel.

David Quinet (Avionics Engineering Center): \$7,000 from R.W. Armstrong and Associates for the runway 22R and DHL hub project in Wilmington, Ohio.

David Quinet (Avionics Engineering Center): \$19,535 from Science Applications International Corporation for localizer transmitter evaluation.

David Quinet (Avionics Engineering Center): \$17,261 from Jeppesen Sanderson, Inc. for investigation of the VHF omnidirectional radio range/distance measurement equipment at Bermuda International Airport.

David Quinet (Avionics Engineering Center): \$10,756 from Airport Vanuatu Limited for localizer performance improvement at Bauerfield Airport in Port Vila, Vanuatu.

David Quinet (Avionics Engineering Center): \$16,540 from R.W. Armstrong and Associates for a glide slope feasibility study on runway four at Evansville Regional Airport in Evansville, Ind.

David Quinet (Avionics Engineering Center): \$11,043 from KAYA Associates, Inc. for facility relocation support at Ft. Rucker, Ala.

David Quinet/Simbo Odunaiya (Avionics Engineering Center): \$27,785 from Thales ATM Inc. for ILS/VOR simulation tool training in Stuttgart, Germany.

Diana Schwerha (Center for Intelligent, Distributed, and Dependable Systems): \$10,000 from the U.S. EPA for development and implementation of a 3-D online environmental simulation designed to improve public awareness of chemical exposure issues.

Trent Skidmore (Avionics Engineering Center): \$266,400 from Science Applications International Corporation for systems engineering support of the application of the joint precision approach and landing system.

Eric Steinberg (Ohio Research Institute for Transportation and the Environment): \$130,279 from the Ohio Department of Transportation for the structural evaluation of box beams with advanced strand deterioration.

Eric Steinberg (Ohio Research Institute for Transportation and the Environment): \$85,158 from the Ohio Department of Transportation for the field assessment and analysis of thermal forces in the wingwalls of bridges with skewed semi-integral supports.

Robert Thomas (Avionics Engineering Center): \$6,000 from Defense Research Associates, Inc., for support of the second-avoid flight demonstration.

Maarten Uijt de Haag (Avionics Engineering Center): \$7,769 from R.L. Associates, Inc., for flyable prototype technology.

Maarten Uijt de Haag (Avionics Engineering Center): \$35,000 from Honeywell Inc. for the truth system and flight testing for motion compensation program.

Maarten Uijt de Haag (Avionics Engineering Center): \$265,914 from NASA for integrated intelligent flight deck technologies.

Maarten Uijt de Haag (Avionics Engineering Center): \$150,000 from the Air Force Office of Scientific Research for tightly-integrated LADAR/INS algorithm development to support urban operations.

Frank Van Graas (Avionics Engineering Center): \$300,000 from NAVTEQ to support the development of a mobile equipment suite to track location, landmarks, street names, and other details, in order to enable all map searches completed today on the Internet.

Frank Van Graas (Avionics Engineering Center): \$10,000 from The Ohio State University Consortium of Ohio Universities on Navigation and Timekeeping (COUNT), to improve the accuracy of the Global Positioning System (GPS) by investigating potential errors.

Robert L. Williams II (Mechanical Engineering): \$46,060 from the Brentwood Foundation for the enhancement and evaluation of haptic modules for palpatory diagnosis training.

Aaron Wilson (Avionics Engineering Center): \$73,179 from CH2M Hill Inc. for the Dulles International Airport fourth runway project.

Aaron Wilson/Jamie Edwards (Avionics Engineering Center): \$21,620 from Thales ATM Inc. for preliminary flight inspection at Branson, Miss.

Aaron Wilson (Avionics Engineering Center): \$57,901 from Thales ATM Inc. for the Los Angeles International Airport end-fire glideslope project.

Valerie Young (Center for Air Quality): \$26,580 from the U.S. Department of Agricultural Forest Service to analyze injury and mortality risks from wildland fire smoke and heat exposures.

Jianchao Zhu (Avionics Engineering Center): \$90,000 from the U.S. Air Force Research Laboratory for the biometric aerial robotic transformer/Campus Challenge project.

Zhen Zhu (Avionics Engineering Center): \$65,000 from FreeFlight Systems for Free Flight GPS/WAAS software.