



Welcome to the spring 2011 edition of the ECEE alumni newsletter! There are many new and exciting developments this semester, including a new student advising center and student project lab. Photos of these new resources can be seen throughout the newsletter.

With more than have over 55 full-time faculty members and more than 30 research and affiliate faculty, we provide a high caliber of research, teaching, and mentoring capabilities. We are proud of their contributions and hope that you find opportunities to interact with them in a professional capacity in the near future.

In this edition we present the Control Systems, Electromagnetics, Antennas, and Microwave Circuits,

Electric Power and Energy Systems, and Signal Processing and Communications faculty. The year that they began at Arizona State University is also listed next to their title. The remaining faculty members were spotlighted in the fall 2010 issue and can be found on our website. For more information on our faculty or to contact us, visit <http://engineering.asu.edu/ecee>

Electric Power and Energy Systems



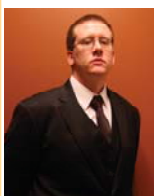
Raja Ayyanar
Associate Professor,
2000; Ph.D., University of
Minnesota
Expertise: Power
electronics, grid integration
of photovoltaics and wind, PWM
converters, electric drives.



Richard G. Farmer
Research Professor,
1966; M.S., Arizona State
University
Expertise: Project planning
and interaction of turbine
generators with EHV transmission
systems RGF.



Ravi Gorur
Undergraduate Program
Chair, Professor, 1987;
Ph.D., University of Windsor
Expertise: HV insulators,
nanodielectrics, composite
conductors, electric field calculations,
nondestructive testing.



Kory Hedman
Assistant Professor, 2010;
Ph.D., University of
California, Berkeley
Expertise: Energy systems,
power system economics,
mathematical programming, operations
and planning.



Gerald T. Heydt
Regents' Professor, 1995;
Ph.D., Purdue University
Expertise: Power
engineering, electric
power quality, distribution,
transmission, power education, sensors
and instrumentation.



Keith E. Holbert
Associate Professor,
1989; Ph.D., University of
Tennessee
Expertise: Process
monitoring and diagnostics,
sensor fault detection, instrumentation
development, ionizing radiation effects.



George G. Karady
Professor, 1986;
Ph.D., University of
Technical Sciences,
Budapest
Expertise: Power
electronics, high-voltage engineering and
power systems.



Daniel J. Tylavsky
Associate Professor, 1982;
Ph.D., Pennsylvania State
University
Expertise: Electric power
systems, numerical methods
applied to large-scale system problems.



Vijay Vittal
Ira A. Fulton Chair and
Regents' Professor, 2005;
Ph.D., Iowa State University
Expertise: Electric power,
power system dynamics
and controls, nonlinear systems, and
sustainable energy.



Signal Processing and Communications



Chaitali Chakrabarti
Professor, 1990;
Ph.D., University of Maryland
Expertise: VLSI algorithms and architectures for signal processing, low power embedded systems.



Douglas Cochran
Associate Professor, 1989;
Ph.D., Harvard University
Expertise: Sensor signal processing, applied harmonic analysis, detection theory.



Tolga M. Duman
Professor, 1998;
Ph.D., Northeastern University
Expertise: Wireless & mobile communications, channel coding, modulation, underwater acoustic communications, information theory.



David H. Frakes
Assistant Professor, 2008;
Ph.D., Georgia Institute of Technology
Expertise: Vascular flow Imaging and associated fluid dynamic applications, suppression of optical turbulence distortion in video.



Joseph Hui
Professor, 1999;
Ph.D., Massachusetts Institute of Technology
Expertise: Communications, networking, switching, queuing, theory, virtualization, cloud computing, energy, electric vehicles.



Lina Karam
Professor, 1995;
Ph.D., Georgia Institute of Technology
Expertise: Image & video processing, compression, & transmission, visual quality assessment, multidimensional signal processing.



Antonia Papandreou-Suppappola
Professor, 1999;
Ph.D., University of Rhode Island
Expertise: Waveform-Agile Sensing, Time-Frequency Processing, Stochastic Processing/Biosensing.



Martin Reisslein
Associate Professor, 2000;
Ph.D., University of Pennsylvania
Expertise: Multimedia streaming, multimedia traffic characteristics, metro and access fiber/wireless networks, engineering education.



Andreas S. Spanias
Professor, 1988;
Ph.D., West Virginia University
Expertise: Digital signal processing, multimedia signal processing, speech and audio coding, adaptive filters.



Cihan Tepedelenlioglu
Professor, 2001;
Ph.D., University of Minnesota
Expertise: Wireless communications, signal processing, sensor networks, data analysis for cyber-physical systems.



Hongyu Yu
Assistant Professor, 2008;
Ph.D., University of Southern California
Expertise: MEMS: wireless flexible sensors for microfluidics, radiation and gas sensing; micro seismometers.



Junshan Zhang
Professor, 2000;
Ph.D., Purdue University
Expertise: Wireless networks, information theory, cross-layer optimization, ad-hoc/sensor networks, stochastic analysis.epilepsy.

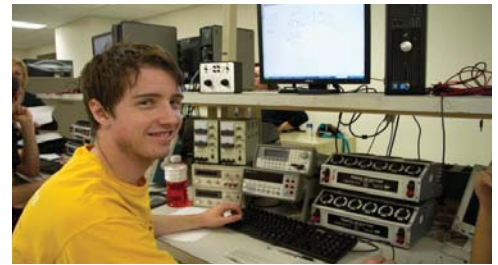


Yanchao Zhang
Associate Professor, 2010;
Ph.D., University of Florida
Expertise: Estimation and filtering, dynamic optimization, neurophysiological basis for control, brain machine interface.

ECEE Annual Report

Check out the School of Electrical, Computer and Energy Engineering Annual Report on our website at <http://engineering.asu.edu/ecee/publications>.

Did we miss you? Keep in touch with us, please email your career updates to askee@asu.edu



Control Systems



Ying-Cheng Lai

Professor, 1999;
Ph.D., University of
Maryland at College Park
Expertise: Nonlinear
dynamics, solid-state

electronics, complex networks, signal
processing, and computational biology.



Deirdre Meldrum

Ira A. Fulton Schools Dean
2007-2010, Professor, 2007;
Ph.D., Stanford University
Expertise: Biosignatures
discovery automation, live

single cell analyses, robotics, genomics,
lab-on-chip, nanotechnology.



Armando Rodriguez

Professor, 1990;
Ph.D., Massachusetts
Institute of Technology
Expertise: Approximation
theory, embedded systems,

rapid prototyping, modeling, simulation,
animation, and real-time control.



Jennie Si

Professor, 1991;
Ph.D., University of Notre
Dame

Expertise: Estimation
and filtering, dynamic

optimization, neurophysiological basis for
control, brain machine interface.



Konstantinos Tsakalis

Professor, 1988;
Ph.D., University of Southern
California

Expertise: Control,
identification, and optimization

applications to semiconductor manu-facturing,
process control, and epilepsy.

Electromagnetics, Antennas and Microwave Circuits



James T. Aberle

Associate Professor, 1989;
Ph.D., University of
Massachusetts

Expertise: Antennas and
RF systems for wireless

communications, modeling of complex
electromagnetic phenomena.



Constantine A. Balanis

Regents' Professor, 1983;
Ph.D., Ohio State University

Expertise: Computational
electromagnetic methods
(FDTD, FEM, MoM, GO/
GTD/UTD, PO/PTD).



Rodolfo E. Diaz

Associate Professor, 1998;
Ph.D., University of
California Los Angeles

Expertise: Electromagnetic
and optical scattering of

complex material objects in realistic
environments.



Joseph C. Palais

Graduate Program Chair,
Professor, 1964;
Ph.D., University of
Michigan

Expertise: Fiber optic

communications, holography, and distance
education.



George Pan

Professor, 1995;

Ph.D., University of Kansas

Expertise: Computational
electromagnetic, electronic
packaging, rough surface

and inverse scattering, millimeter-wave
antennas.

Support Electrical Engineering

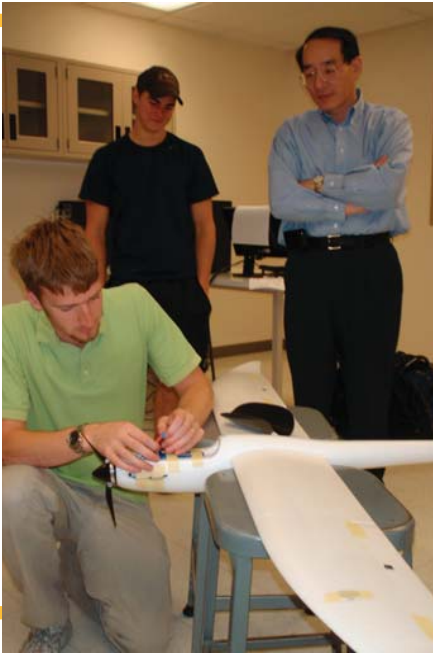
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To make a donation of any amount:

- Call Charles A. Silver at 480.965.9449
- Go online to www.asufoundation.org and click the gold "Invest in ASU" button. On the next screen, click "Ready To Give." Then select "Engineering, Ira A. Fulton Schools of." When asked to "Select an associated fund", select "Electrical Engineering."
- Mail your gift to – Cynthia Moayedpardazi, PO Box 875706, Tempe, AZ 85287-5706. Check should be payable to "Arizona State University" with "Electrical Engineering" noted on the memo line.

New Advising Center and Student Project Lab

This spring the School of Electrical, Computer and Energy Engineering opened its new advising center and student project lab. The student project lab was designed to give students a place to work on their projects and has computers, large work tables, and cabinets for supply storage. The advising center was redesigned with couches, computers, and a work table to make waiting for class or an advising appointment a more comfortable and inviting experience. Next time you are on campus come check out these new resources on the 2nd floor of the Goldwater Building!



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