



UNIVERSITY OF
FLORIDA



Electrical & Computer Engineering

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Message from Dr. Law



It's an exciting time for the Electrical and Computer Engineering Department. Over the last year, we hired five new faculty. You'll see them profiled inside and I'm sure you are as excited about their hiring as I am. They come to us from top programs and promise to help reinvigorate research across the department. We have had amazing amounts of change in the last several years. We now have about as many untenured faculty as we have full professors. While the department is getting younger, its enthusiasm for research and attacking new problems is unparalleled.

One of the biggest announcements of the year for the department was the Intel / Charles Young chair. Intel graciously endowed a \$2 million chair in ECE in the name of our recently retired president. President Young was a long-time board member of Intel, and we appreciate his service and Intel's commitment to us. We have formed a search committee, chaired by Prof. Ken O, to help us identify a research leader to fill the chair. When matched by the state, the endowment will stand at \$4 million.

Private giving is critical to our mission and many of our alums have been generous supporters of the program. Unrestricted gifts to the department support faculty recruiting, student organizations, faculty retention, student and faculty awards, and student projects. The University is developing a program to raise money for endowed chairs to help us retain our best faculty. I hope we can count on you to help us become one of the best programs in the country. We want to make you as proud as possible of our accomplishments in research, teaching, and service. And with your help we can accomplish this goal.

We've begun new programs to recognize the accomplishments of our distinguished alumni. Details of how to apply or nominate someone are contained inside. We want to celebrate the accomplishments of our graduates, so please help us find some of the best.

I hope this newsletter finds you in good health and spirits, and that you all have a happy holiday season.

New Faculty Members Bring Diverse Research, Experience

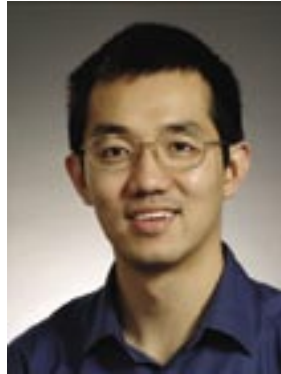
With avocations ranging from the arts to being a sports fan, hailing from homelands as near as North Carolina and as far as China, and with equally diverse research interests - from nanotechnology to wireless communications - five new faculty members bring their experiences to ECE this year. The following is a brief summary of backgrounds, educations, and research interests for each new faculty member.



Rizwan Bashirullah



P. Oscar Boykin



Jing Guo



Tao Li



Liuqing Yang

Rizwan Bashirullah: *Artist, Sports BSEE, University of Central Florida, 1997 MS (Electrical Engineering), North Carolina State University, 1999 PhD, (Electrical Engineering) North Carolina State University, 2004*

Having been involved in the higher academic world since he was a child, it wasn't hard for Rizwan Bashirullah to follow in his father's footsteps in becoming a professor. "Once I started interviewing, I found out why I like academia," says Bashirullah. "It puts you with people in search of knowledge and you're given the opportunity to both teach and do research which is good for the creative mind."

Another outlet for his creative mind is painting landscapes, which he hopes to get back to when things settle down a bit.

Bashirullah is also very active in sports. He participates in basketball, racquetball, jogging and weightlifting.

His current research interests are circuit design techniques for high performance analog/digital VLSI, electronic circuit devices and technology, high speed signaling techniques and circuits for biomedical applications.

P. Oscar Boykin: *Musician, Animal Lover, Physical Fitness BS (Math and Physics), Georgia Institute of Technology, 1996 MS (Physics), UCLA, 1997 PhD (Physics), UCLA, 2002*

P. Oscar Boykin didn't always want to be an electrical engineer. In fact, he was a physics major. Although he was always interested in computers, he only became interested in engineering while in graduate school when he took a course in quantum computing from an electrical engineering professor. That professor later became his dissertation advisor. "He made it seem like the greatest job," says Boykin.

Boykin also has a unique way to describe computers. “Computers are like living organisms.” According to Boykin, computation and information are fundamental concepts. As more is learned about how physical systems can be made to compute, not only will there be better computers, but there will be a better understanding of the role of information in life, computation in the brain and possibly a better understanding of physics.

Eight months before coming to UF, Boykin rescued a lost dog on his way to UCLA. He took her to the animal shelter, but when no one claimed her after a week, he adopted her and named her Millie.

Boykin also enjoys playing his guitar. He was part of a band in high school, at Georgia Tech and for a short time at UCLA. “As I get settled in, I will look for something here in Gainesville. Any Pixies fans out there?” says Boykin.

His current research interests are complex networks, P2P computing and quantum fault tolerant computer architectures.

Jing Guo: *Camper, Swimmer, Soccer Fan*
BS (Electrical Engineering), Shanghai Jiao Tong University, 1998
MS (Electrical Engineering), Shanghai Jiao Tong University, 2000
PhD (Electrical Engineering), Purdue University, 2004

Jing Guo can be best described as an avid soccer fan. He is such a fan, he even got up in the middle of the night to watch the World Cup. Guo came to ECE this fall from Purdue University in West Lafayette, Indiana, where he earned his PhD degree.

“The weather in Florida is so nice and you can swim all year round,” he says.

Guo chose his career while he was a student in middle school. “ECE was developing very fast and mobile communications was coming up,” says Guo. “Exciting activities, new fields and I wanted to change people’s lives.”

Guo is in the devices division. “Nanotechnology is an exciting area,” says Guo. “Revolutionary things are happening.”

His current research interests are modeling and simulation of nanoelectronic devices, carbon nanotube electronics and photonics, physics of nanotransistors, and computational nanobiotechnology.

Tao Li: *Sports, Traveler, Photographer*
BS (Computer Science), Northwestern Polytechnic University, 1993
ME (Computer Engineering), Beijing Institute of Data Processing Technology, 1996
PhD (Computer Engineering), University of Texas at Austin, 2004

Tao Li enjoys photographing scenery. However, photography would not be his chosen profession. He actually started out as an aerospace engineering major. “I thought if I made a mistake, people would die. That was scary,” says Li. So he changed his major to computer engineering.

After working in industry for a few years, Li decided to change career paths once again. He completed his Ph.D. this year from University of Texas at Austin.

“I like the flexibility and being able to interact with smart people,” says Li.

Li enjoys swimming, table tennis and jogging. He also has an unusual hobby in collecting the scenic pictures from match boxes.

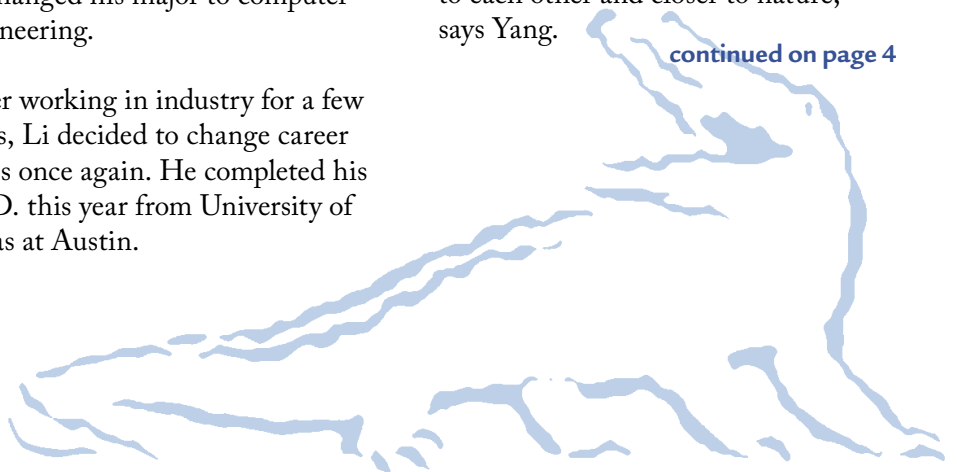
After he’s settled in, he’s hoping to buy a house and start a family with his wife of three years.

His current research interests are computer and digital system architecture; interaction of computer architecture, operating systems, programming language features and managed run-time environments; modeling, simulation and evaluation of computer systems; parallel computing and shared memory multiprocessors; and building real-world computer systems

Liuqing Yang: *Nature, Water Sports, Racquetball*
BS (Electrical Engineering), Huazhong University of Science & Technology, 1994
MS (Electrical & Computer Engineering), University of Minnesota, 2002
PhD (Electrical & Computer Engineering), University of Minnesota, 2004

Nature is important to Liuqing Yang and one of the reasons she became an electrical engineer. “To bring us closer to each other and closer to nature,” says Yang.

continued on page 4



New Alumni Awards

The Department of Electrical & Computer Engineering has established two awards to recognize alumni who have made outstanding professional contributions to their field since graduating from the UF ECE department.

The ECE Young Alumni Achievement Award recognizes young alumni who are less than 40 years of age as of March 1st in the year of the award. The ECE Distinguished Career Achievement Award recognizes all alumni irregardless of age.

Nominations are solicited from the ECE Alumni, ECE faculty, and from the readers of the ECE News. Winners will be featured in an issue of ECE News. The awards will be presented at the annual

Spring Banquet. The winner(s) will receive a plaque and will be given the opportunity to make a brief expression of appreciation at the banquet.

A PDF Nomination Form can be printed from <http://www.ece.ufl.edu/alumni/nominationform.pdf>. Nominators should submit the completed nomination form and the nominee's vitae (including a current address) by March 1 to:

Mr. Keith Rambo
Director of Finance and Administration
Department of Electrical and Computer Engineering
P. O. Box 116200
Gainesville, FL 32611-6200
Email: rambo@tec.ufl.edu

New Faculty Members Bring Diverse Research, Experience continued from 3

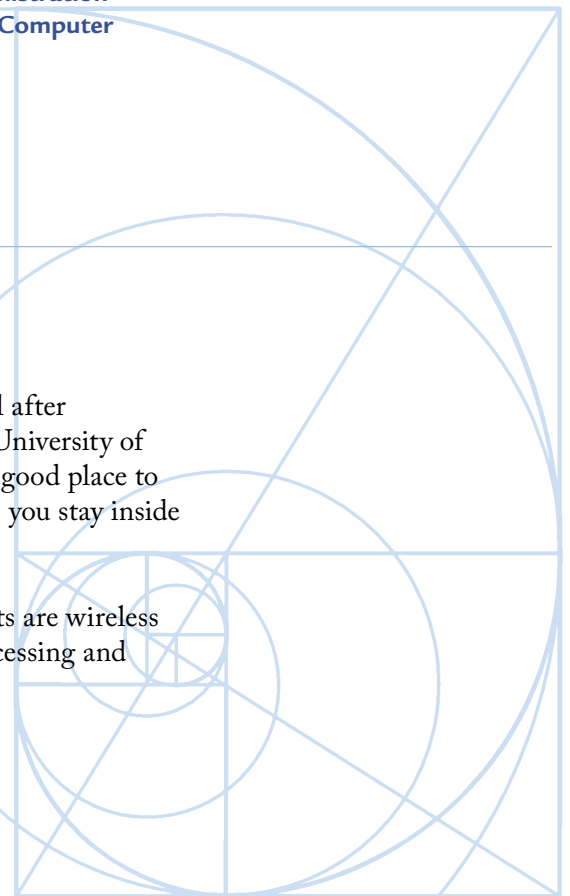
“We need help with devices to put ourselves into nature and to bring it to ourselves,” says Yang.

And her hobbies reflect her interest in nature - swimming, fishing, boating, hiking, and some camping.

Education was always a priority in Liuqing Yang's home in Zhengzhou, China. Her father is a high school physics teacher. “I saw how he helped students,” says Yang. “It was very fulfilling.”

Dr. Yang joins ECE this fall after completing her PhD at the University of Minnesota. “Minnesota is a good place to finish a PhD. In the winter, you stay inside and study,” says Yang.

Her current research interests are wireless communications, signal processing and networking



Mr. Joe Brewer - Organizer/Chair for Emerging Research Memory Workshop to be held in Stresa, Italy, April 17, 2004. This event is part of the International Technology Roadmap for Semiconductors Emerging Research Devices Technology Working Group.

Mike Fang - Program Co_Chair for Global Internet and Next Generation Networks Symposium, IEEE Global Communications Conference (Globecom'2004), November 29-December 3, 2004

Jerry Fossum - receives the prestigious Electron Devices Society J. J. Ebers Award for 2004. The award will be presented at the 2004 IEEE International Electron Devices Meeting in San Francisco.

Rob Fox - Executive Committee/Analog Circuits Chairman, Bipolar/BiCMOS Circuits & Technology Meeting of BCTM 2003 in Toulouse, France and BCTM 2004 Montreal, Canada

Alan George - receives UF/OIT Exceptional Volunteer Award for his work on the High Performance Computing Committee

Mark Law - Became Vice President for Technical Activities of the IEEE Electron Device Society in 2004.

Jian Li - Distinguished Lecturer for the Third IEEE Sensor Array and Multichannel Signal Processing Workshop in Barcelona, Spain in July 2004.

Kenneth O - recognized as having a distinguished current record of research and a strong research agenda that is likely to lead to continuing distinction in his field. Dean Khargonekar made the recommendation based on nominations from department chairs, a personal statement, and an evaluation of recent

research accomplishments as evidenced by publications in scholarly journals, external funding, honors and awards, development of intellectual property, and other measures appropriate to their field of expertise. The three-year award includes a \$5,000 annual salary supplement and a \$3,000 grant.

Jose Principe - Invited for the Scientific Advisory Board of the Electrical Engineering Department, University of Porto, Portugal with the title of Invited Full Professor; Part of the research team for the three-year project, "New Algorithms for the design and training of artificial neural networks," funded by the Ministerio de Ciencia & Tecnologia of Spain.

Vladimir Rakov - Appointed as a member of the Scientific Committee of the 1st International Conference on Lightning Physics and Effects (November 7_11, 2004 in Belo Horizonte, Brazil). He was also appointed as a member of the Program Committee of the VI International Suzdal URSI Symposium (October 19_21, 2004 in Moscow, Russia).

Stanley Su - Program Co-Chair of the Fifth International Conference on Web Information System Engineering in Brisbane, Australia, November 22_24, 2004

Tan Wong - Became Editor in Chief for the IEEE Transactions on Vehicular Technology

Dapeng Wu - Program Co-Chair for IEEE/ACM First International Workshop on Broadband Wireless Services and Applications (BroadWISE 2004), San Jose, California, October 25, 2004. He also became Vice Chair, Mobile and wireless multimedia Interest Group (MobIG) and is a Member of the Award Committee for the Technical Committee on Multimedia Communications, IEEE Communications Society.



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WE WOULD LIKE TO HEAR FROM YOU

Your contributions are needed so that we can continue our academic programs at or above their present levels. All contributions are tax deductible and will be applied to the improvement of the department. Please specify that your contribution is for the ECE Department and make your check payable to the University of Florida Foundation.

YES! I want to financially help support the Department of Electrical & Computer Engineering at UF.

- I am enclosing \$_____ for the Department to be used for:
 - Teaching programs
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 - Other, please specify: _____
- My employer has a matching gift program. I will arrange for a matching gift.
- I would like information on making a large gift (\$5,000 or more).
- I would like information on establishing an estate gift
- I'd also like to be listed as an ECE Career Networker/Mentor for our students

Tell us about yourself!

Your fellow alums would like to know what you are doing. Use the form below (or attach additional pages) to send us news about your current position, title, company, publications, recognitions, etc. or email us at: ecenews@ece.ufl.edu

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