

## Department Offers an 11-Month Weekend Master's Program in Computer Science with Specialization in Internet and Web Technologies

The first generation of 10 students from local high-tech companies (Motorola, Verio, Avocent, PaceMicro, and others) will complete the program in March 2005. This program provides a cutting-edge education with a unique emphasis on Internet and Web technologies. The program requires limited on-campus attendance, allowing students to complete the program in 11 months while continuing to hold their current jobs. During the program, students attend formal classes at FAU about two Saturdays per month. The remaining instruction is delivered through the latest distance learning technologies, including FAU's Blackboard system. The format allows participants to pursue their academic goals while maintaining their employment.

The second group of students begins the program in February 2005. For more information about the program, visit the Website [www.cse.fau.edu](http://www.cse.fau.edu) or write to [borko@cse.fau.edu](mailto:borko@cse.fau.edu).



The first generation of students attending the weekend MS program in CS with specialization in Internet and Web technologies

## Chairman's Corner

The year 2004 brought many changes and challenges to the University and to the Department of Computer Science and Engineering. FAU hired a new Provost and Vice President for Academic Affairs, John Pritchett, who came here from Auburn University in April of 2004. The Scripps Research Institute, one of the country's largest, private, non-profit research organizations, is opening a branch in Palm Beach County. Governor Jeb Bush predicted that Scripps Florida will create 6,500 new jobs during the next 15 years and will position Florida as a leader in biomedical research, generating \$1.6 billion in additional income to Floridians with the creation of up to 44,000 new jobs. There are exciting opportunities for students and faculty in the College of Engineering to work collaboratively with Scripps Florida researchers. Scripps will be integrating advanced technology, robotics, sophisticated IT systems, data generation, and more - all geared to their drug discovery platform.

At the College level, we announced a name change in 2004. We are now the College of Engineering and Computer Science, emphasizing the growing importance of Computer Science to the engineering field. Dean Stevens has an exciting initiative in mind, a new "green" building to house the College on the Boca Raton campus. While still in the planning stages, the College's new home would be a showcase and an environmentally friendly building.

Within the Department there are too many exciting successes this year to do justice to each, so let me mention just a few. Our faculty research funding rose impressively by about 50% over the previous year. Also, I should proudly announce that more than 75% of our faculty are currently involved in sponsored research, while just a few years ago this number was only 25%. We continued a very fruitful collaboration with Motorola, the largest high-tech company in South Florida, with the objective of utilizing

revolutionary approaches to reduce product development cycle-time of their wireless devices. Our faculty and graduate students received research support from two large Federal Earmark grants in secure telecommunications and coastline security technologies. We are also participating in research as part of the Center of Excellence in Biomedical and Marine Biotechnology. Our faculty received several new NSF research and equipment grants as well.

At the academic level, we launched a unique Weekend Master's Degree Program in Computer Science with Specialization in Internet and Web technologies. In Fall 2005, we will launch a new B.S. degree program in Information Engineering Technology, which will attract new types of students interested in practical computer science. We are actively pursuing several joint international programs with universities in India, Pakistan, Philippines, Colombia, and other countries. We strengthened our links with the local community; our Industry Advisory Board became a part of our strategy, and their great support through our Industry Affiliates Program helped us to launch a number of successful initiatives.

Our impact on the world of engineering and science and the world at large is perhaps small, but it continues to expand. I am proud to lead the Department in the coming years with the strong support of our dynamic and enthusiastic faculty, hard-working staff, and ambitious students.

Borko Furht



## Department's Sponsored Research Is Growing Exponentially

In the last three years, research in our Department has significantly increased. Funded research is equally divided among national agencies, including NSF and Federal Earmark grants, and from local companies, such as Motorola and Avocent. More than 80% of CSE tenured and tenure-track

faculty are currently involved in sponsored research. The major projects are listed in the Table below. For more information, please refer to the CSE Research Brochure at <http://www.cse.fau.edu/research/ResearchBrochureDec04.pdf>

PI/Co-PI	Grant Name	Sponsor	Grant Amount
Dr. Borko Furht, PI Dr. Taghi Khoshgoftaar Dr. Hari Kalva Dr. Oge Marques	Center for Coastline Security	Federal Earmark Project (Total \$1.75 million; expected to continue in 2005 with \$2.5 million)	\$156,400
Dr. Mohammad Ilyas, PI Dr. Ed Fernandez Dr. Maria Petrie Dr. Abhi Pandya Dr. Imad Mahgoub Dr. Taghi Khoshgoftaar Dr. Mike VanHilst Dr. Oge Marques Dr. Jie Wu Dr. Mihaela Cardei Dr. Shi Zhong	Secure Telecommunication Networks	Federal Earmark Project (Total \$1 million in 2004; expected to continue in 2005 with \$1 million)	~ \$500,000
Dr. Jie Wu, PI	A Dominating Set-Based Routing Scheme in Ad Hoc Wireless Networks	National Science Foundation (NSF)	\$181,957
Dr. Jie Wu, PI	Energy Efficient Communications in Sensor Networks	National Science Foundation	\$255,303
Dr. Taghi Khoshgoftaar	Center of Excellence in Biomedical & Marine Biotechnology	State of Florida (Total \$10 million)	\$130,000
Dr. Abhi Pandya, PI Dr. Sam Hsu, Co-PI	Test Vectors	Motorola (Service Grant)	\$939,154
Dr. Borko Furht, PI	Algorithms for KVM Processing	Avocent	\$44,000
Dr. Jie Wu, PI	Computer Implementation of Radio Service Software	Motorola (Service Grant)	\$955,729
Dr. Borko Furht, PI Dr. Ravi Shankar, Co-PI Dr. Mike VanHilst Dr. Imad Mahgoub Dr. Hari Kalva Dr. Saeed Rajput	One Pass to Production	Motorola	\$250,168
Dr. Jie Wu, PI	Efficient and Localized Broadcasting in Ad Hoc Wireless Networks	National Science Foundation	\$225,000
Dr. Sam Hsu, PI Dr. Abhi Pandya, Co-PI	Wireless Testing	Motorola (Service Grant)	\$125,058
Dr. Mihaela Cardei, PI Dr. Jie Wu, Co-PI	CISE Instrumentation: Wireless and Sensor Networking Laboratory	NSF (Equipment Grant)	\$85,851

## New Bachelor in Information Engineering Technology (BIET) Program

In Fall 2005, the Department will be launching a new BIET program on the Davie and Port St. Lucie campuses. The students in this program will be trained in the state-of-the-art technologies required for a successful career in the areas of computer networking, Web services, Internet programming, data and network security, database management, communications, information modeling, and applied software engineering. This program specifically addresses the need for more skilled computing practitioners, by providing a path from two-year Applied Sciences (AS) degrees in computing technologies

(obtained from local community colleges) to the bachelor's degree. This unique program will offer a number of new, exciting applied courses, including Applied Data Structures, Applied Software Engineering, Database Application Development, Applied Operating Systems, Internet Computing, Web Services, Applied Project Management, and many others. Once the program is launched, the University will seek accreditation of the program from ABET through the Technology Accreditation Commission (TAC).

## Fall 2004 Industry Advisory Board Meeting

On November 19, 2004, we held a very successful CSE Industry Advisory Board meeting, with about 20 industry executives attending the meeting. The industry representatives included executives from Motorola, IBM, Avocent, EDC, AeA Florida Council, OfficeLock, Tolly Group, Graphic Security Systems, Radisys, Partnet Community, BlueKey Wireless Systems, e-Jamming Corporation, and Boca Raton Police Service

Department. President Brogan and Dr. Karl Stevens, Dean of the College of Engineering and Computer Science, addressed the Board. Dr. Borko Furht, CSE Chairman, presented the State of the Department address, and several CSE faculty members introduced their major research projects. The keynote speaker was Jaime Borrás, CTO and Vice President of Motorola and Chair of the IAB, who talked about the Motorola/FAU joint project, "One Pass to Production."



FAU President Frank Brogan delivers his address.



Dr. Jaime Borrás, Motorola, delivers the keynote address



Members of the Industry Advisory Board participated actively in the meeting



CSE faculty are introduced to the IAB members



Borko Furht introduces new members of the Board



Active discussion among IAB members and CSE faculty during the coffee break

## Department's End-of-the-Year Party

We work hard, but we also know how to have a good time! We proved it on December 2 at the Department's End-of-the-Year Dinner and Party. There were about 90 people at the party, including CSE faculty and staff, their spouses, and distinguished guests. Distinguished guests included Bob Kruger, ex-CTO of Citrix; Steve Geffin, Vice President of Avocent; Dr. John Yin, CEO of Partner Community; Dr. Zee Aganovic, CEO of Eisenworld; Dr. Edin and Mira Muharemagic, from IBM and Verio, respectively; Mike Zivkovic, from Hewlett Packard; and Prof. Reuven Lask, from University of Miami. FAU guests included Dr. Karl Stevens, Dean of Engineering and Computer Science; Dr. Nancy Romance, from College of Science; Dr. Mohammad Ilyas, Associate Dean; Dr. Sharon Schlossberg, Assistant Dean; Gyll Rowan, Director of Operations; Dr. Pete Scarlatos, Chair of Civil Engineering;

Dr. Spyros Magliveras, Chair of Mathematics; Dr. Daniel Raviv and Dr. Zvi Roth from Electrical Engineering; Dr. Alan Marcovitz, Professor Emeritus; and Pat Capozziello and Brenda Coto.

Special Industrial Awards for continuous support of our Department were presented to Jaime Borrás (CTO of Motorola, not present at the party), Bob Kruger (Citrix), Steve Geffin (Avocent), and Dr. John Yin (Partner Community). Internal awards were given to Dean Karl Stevens, Dr. Mohammad Ilyas, and Gyll Rowan, as well as to all CSE staff members.



Guests at the party

The party concluded with a Latin dance, at which almost all faculty and guests have actively participated with success (more or less).

## New CSE Faculty

After hiring five Assistant Professors in Fall 2003, the Department hired two new Assistant Professors and one Instructor in Fall 2004, and another Instructor in Spring 2005



**Dr. Shihong Huang** is a new Assistant Professor at the Boca campus. She received her Ph.D. in Computer Science from the University of California, Riverside in 2004. Her research interests include reverse engineering, program understanding, program redocumentation, empirical studies, and software visualization. She was the Program Chair for ACM SIGDOC 2004.



**Dr. Ionut Cardei** is a new Assistant Professor at the Davie campus. He received his Ph.D. in Computer Science from the University of Minnesota in 2003. His research interests are quality of service and distributed resource management, policy-based management for next generation wireless networks, and MAC protocols for ad-hoc wireless networks. He worked as a senior research scientist at Honeywell Labs in Minneapolis.



**Ankur Agarwal** is a new Visiting Instructor at the Port St. Lucie campus. He received the MS degree in Computer Science from Florida Atlantic University and he is currently a Ph.D. student. His research interests include verification, embedded system design, digital VLSI design, and mathematical modeling of RTOS.



**Tami Sorgente** is a new Visiting Instructor at the Boca campus. She received the MS degree in Computer Science from Florida Atlantic University and she is currently a Ph.D. student. Her research interests include software engineering, data security, object-oriented design, and healthcare information management.

*This Newsletter was created by Tami Sorgente.*