Ford Gives College $1.7 Million Grant

Extra horsepower was added to the engine of the College of Engineering by the Ford Motor Company grant of $1.7 million for distribution over five years, it was announced at a University news conference in mid-September.

The Engineering grant represents almost half of a $3.5 million grant made by Ford to Ohio State, Dan Grafner, associate to the dean for development and external affairs, Fisher College of Business, explained. Ford also donated $1.5 million to the College of Business and $300,000 for Student Affairs.

Ford's largess will support a number of initiatives at Ohio State, including scholarships, fellowships, research and the new Ford Living and Learning Center. The center will provide an academically-oriented residential experience for 40-45 students majoring in business and engineering.

David Ashley, dean of the college, described the gift as an extension of a strong, long-term relationship between Ford and the College of Engineering. Over the years, he said, Ford has supported faculty research, visited campus to recruit students and placed their executives on advisory boards at the college and department level at Ohio State.

“Excellence” Attracts Takeshita, Coifman

Dr. Oscar Yassuo Takeshita, a coding theorist, and Dr. Benjamin Coifman, a specialist in transportation systems, were hired as Electrical Engineering faculty under the University’s “Selective Investment in Academic Excellence” program, EE Associate Chair Chuck Klein announced September 21.

The University initiative will support the hiring of new EE faculty positions over the next three years.

Dr. Takeshita, formerly a post-doctoral researcher at the University of Notre Dame, received the PhD in Electrical Engineering from the University of Tokyo under the direction of Dr. Hideki Imai. At Notre Dame, he collaborated with Prof. Daniel Costello, Jr. for two years. He received the Diploma of Electrical Engineering (Telecommunications) from the Universidade de São Paulo, Brazil, in 1991; the M.E. from Yokohama in 1994, and the PhD from the University of Tokyo in 1997.

Error control coding, communication systems and information theory are Prof. Takeshita’s areas of interest. His latest published paper, “A Note on Asymmetric Turbo Codes,” co-Continued on page 2
BS/MS Track Opens

A five-year program for the master’s degree is now available for students who wish to commence advanced study during their fourth year. EE Associate Chair Stanley Ahalt announced recently.

The new BS/MS Program offers EE seniors an opportunity to conduct research with a faculty member and receive a monthly stipend. In the fifth year, students will complete their course work and a thesis. Four EE students are currently in the program.

Goel Heads Pattern Recognition Project

Professor Prem Goel, former chair of the OSU Statistics Department, will serve as principal investigator in a year-long, collaborative project related to automatic target recognition and mapping technologies, the National Science Foundation (NSF) has announced.

The Interdisciplinary Grant in the Mathematical Sciences (IGM S) project will involve faculty members at IPS and the OSU Center for Mapping in an intensive study of digital signal and image processing conducted by Dr. Goel. Project objectives include development of a long-term interdisciplinary research agenda for automatic target recognition technologies, identification of statistical issues in the automatic interpretation of a variety of images, and interdisciplinary course development.

Long-term involvement with the IPS faculty provides an opportunity to identify problems related to probability and statistics education for undergraduate and graduate students in engineering, so as to update the offerings in Statistics Department. Dr. Goel noted in the NSF award abstract. He also plans to work with EE faculty in developing courses to undergird interdisciplinary research in electrical engineering and statistics.

Dr. Goel, a 1971 PhD graduate of the Carnegie-Mellon University, has research interests in the areas of Bayesian graphical and hierarchical models, information theory, value of information, combining information, and data fusion, as well as reliability and fatigue crack growth modeling. His applied interests are (i) spatio-temporal modeling and decision support systems in transportation planning, and (ii) bone mass modeling.

Lucent Adds Chiang, 9th IPSer on Staff

Da-Ming Chiang (PhD ’96) joined Lucent Technologies’ Digital Radio Group, Basking Ridge, NJ, in August, becoming the ninth student of IPS faculty to be employed by the firm.

Formerly a member of Sony’s technical staff, Dr. Chiang was preceded on the Lucent staff nationwide by IPS advisees James Seymour, Tai-Ann Chen and Yuze Zhang at Whopping, NJ; Jayanth Anantharaman (PhD ’98), William Bela (M S’89), Raji Nallasivam (M S’90), and Wayne Whitehead (M S’94) at Columbus; and Mark Browning (M S’88) at Middlesex.

Lucent Digital Radio, a wholly-owned venture of Lucent Technologies, announced in March a program to test In-Band On-Channel (IBOC) Digital Audio Broadcast (DAB) system with the Nassau Broadcasting Partners, L.P. (NBP) of Princeton, N.J.

The IBOC-DAB system is a potential digital radio system for the U.S., and tests will evaluate several related technical issues such as interference, range of signal and audio quality.

First tests will be conducted in NBP commercial radio station facilities, the only statewide radio network in the U.S. It includes 15 AM and FM stations in NJ, two in New York and two in Pennsylvania.

New Look, New Logo

A “new look” for the Department of Electrical Engineering was unveiled in September when Barbara Allen, Outreach Coordinator, introduced a new graphic symbol.

The new symbol or logo, designed by Carol Duhigg, is a three-dimensional cube etched with ECE. The logo will be used in identifying department publications and communications.

Outreach and communications efforts are part of the department’s strategic plan for ascending to the top five percent of the 272 accredited electrical engineering departments in the U.S. by the year 2010.
**Smith-Potter Vows Said in Columbus**

*Dr. Lee C. Potter* of the IPS faculty and *Melissa Smith* were married by the bride’s brother in a ceremony at Worthington Christian Church, September 18.

The bride, an elementary school teacher, is the daughter of M. r. and M r s. Bernard Smith, Leetonia, O H. *Dr. Potter* is the son of Thomas K. Potter, Jr. and Barbara W. Potter, both of Nashville, T N.

The bride was attended by her sister, M r s. Michael Pantaleano, of Willoughby, O H., and sister-in-law, M r s. Michael Smith, from Springboro, O H. Rev. Michael Smith officiated. Best men were Thomas K. Potter, III, Metairie, LA, and Joseph W. Potter, Winston-Salem, NC, brothers of the groom.

Misses Lindsay Potter of Metairie, LA, niece of the groom, and Margaret Lavelle, a former student and young friend of the bride, served as ring-bearers.

Immediately following the wedding, a special reception, complete with cake, punch and bubbles was held for the children of Melissa’s elementary school. A dinner for other guests followed at the Athenaeum in Downtown Columbus.

After a brief wedding trip to Aspen and Vail, CO, the Potters returned to Columbus, teaching and house-hunting.

**IPS is On-Line**

Internet access to IPS is available from our homepage: www.eng.ohio-state.edu/ips.

**Undergrads, Faculty Team on Projects**

Four teams of senior undergraduates and IPS faculty members are conducting research and development projects during Autumn Quarter.

*Gerad Welch, Brian Lemieux* and *Steven Rodenbaugh* are teamed with *Prof. Stan Ahalt*. Welch, an Ohio Aerospace Institute fellow, is working on content-based compression. Lemieux, supported by Army Research Laboratory, is at work on distance education, and Rodenbaugh is doing data acquisition design for the chemistry department, including equipment design to interface with LabVIEW.

*David Browne*, paired with *Prof. Mike Fitz*, is working in characterization of space-time correlation of narrow-band communication signals.

*Ryan Clark* of Marion, O H is working with *Prof. Randy Moses* and *Ravi Rajagopal* as a Linux Administrator. He plans to become an EE graduate student at O SU.

*Pierre Ly*, an honors thesis student, is assisting *Prof. Lee Potter* in research related to array processing. He will be developing software tools for designing beam patterns to optimize magnitude criteria. The effort is an extension of work conducted by *Ashu Sabharwal* (PhD ’99) while an intern at Lucent Technologies, Crawford Hill, N J.

**Share your News**

Do you have news to share? Send email to ipsofacto@ee.eng.ohio-state.edu.

**IPS Alumni Wed In Turkey, Taiwan**

*Defne Kucukyavuz* (M S’98) and *Emre Aktas* (M S’98) were wed August 5 in a garden ceremony at a historic site in downtown Ankara, Turkey.

Among the 150 guests were Defne’s sister, Simge, a graduate student at the University of California, and Emre’s brother, Ozgur, a graduate student at the University of Illinois, Champaign-Urbana.

After the ceremony, the bride and groom went to the beautiful southern coast of Turkey for a short honeymoon. On their return to the U.S., they hosted a reception for their American friends.

*Dr. Li-Chung Chu* (PhD ’99) and *Jessica Shen* were married September 13 in his hometown, Kaohsiung, Taiwan, in a ceremony attended by family and friends. Best man was *Hung-Chih Chiang* (PhD ’99).

The couple returned to San Jose, CA for their honeymoon. Li-Chung has taken a managerial position with Synopsys, Inc., Mountain View, CA.

**IPS Lab Adds 3**

Three new graduate students recently joined IPS lab to pursue research in the areas of sound segregation, signal processing, and parametric modeling of synthetic aperture radar images.

*Jeyoun Cho*, BS’93, Yensei University and M S’99, University of Southern California, is working in the area of sound segregation. His research is being funded by a grant from the Center for Cognitive Research.

*Sinan Dogan*, a new research assistant, is a graduate of M E T U., Ankara, Turkey. He is pursuing his Master’s degree, and will focus in the areas of signal processing and pattern recognition.

*Brian Rigling*, a research assistant since summer, is working in the area of parametric modeling of radar images. A graduate of the University of Dayton and a native of Cincinnati, Brian is completing his Master’s Degree.

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Summer Sweet for 4

It was a sweet summer for one MS and three PhD candidates who completed all degree requirements.

Dr. Hung-Chih Chiang (PhD ’99) presented his dissertation, “Feature-Based Classification with Application to Synthetic Aperture Radar.” Born in Kaohsiung, Taiwan, Dr. Chiang holds the BS degree in Communications Engineering from the National Chiao-Tung University. He has returned to Taiwan to pursue a career in communications.

Dr. Hung-Chih Chiang

Dr. Emre Ertin, (PhD ’99) defended his dissertation, “Polarimetric Processing and Sequential Detection for ATR.” Dr. Julide Yazar, Emre’s wife, also completed her PhD studies during summer quarter. Dr. Ertin holds BS degrees in engineering and physics from Bogazici University, Turkey, and an M.S degree from Imperial College, London. He is past recipient of the British Council Fellowship and the OSU University Fellowship. Emre currently works for Battelle Memorial Institute, Columbus, and Julide is a faculty member in economics at Ohio Wesleyan University, Delaware.

Dr. Emre Ertin

Dr. Ashutosh Sabharwal (PhD ’99) presented his dissertation entitled, “Model Based Signal Processing for Communications and Radar.” Dr. Sabharwal holds the BTech. degree from the Indian Institute of Technology, New Delhi, and is the 1998 OSU Ameritech Presidential Fellow. Ashu recently accepted a post-doctoral research position with Rice University, Houston.

Karthik Ramasubramanian (M.S’99) presented his thesis, “Fast Synchronization for Burst Mode Transmission” to complete his Masters Degree. Mr. Ramasubramanian received the B.Tech. degree from Indian Institute of Technology, Madras, and was a 1997 University Fellow at Ohio State. Karthik is now working for the Motorola Company, Schaumburg, IL.

Karthik Ramasubramanian

Dr. Ashutosh Sabharwal  K. Ramasubramanian

Dr. Hung-Chih Chiang  Dr. Emre Ertin