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Welcome to the Fall 2003 installment of the ECEN Newsletter. Classes began a few weeks ago, and the relative quiet of the summer has been replaced by the welcome return of many new and continuing students. Although this is always a very busy time, it’s also a time I look forward to each year.

This edition of the newsletter focuses on diversity, and is once again packed with interesting articles and information. ECEN is fortunate to have a very bright contingent of students from across the country and around the world. Inside you’ll find perspectives from several of our international students, a profile of Edward Daniel who is a recent PhD recipient, an interview with Huy Le who serves as president of the OSU student body, and a profile of K. Sam Shanmugan a distinguished ECEN alum currently serving as Professor and Interim Head of EECS at the University of Kansas. You’ll also find Alumni Briefs and several short articles about ECEN staff and faculty.

The College and ECEN just finished its periodic accreditation inspection by a team of visitors representing ABET, the Accreditation Board for Engineering and Technology. These visits occur nominally every six years. I’m very happy to report that ECEN passed with flying colors, with no weaknesses or deficiencies identified in the program. This is a real credit to the faculty, staff, students and alumni, and something for which we should all be proud!

Finally, please accept my sincere thanks to all of you who have generously supported ECEN during the past year in so many ways. Recently, we were able to award endowed scholarships to five outstanding ECEN undergraduates, two Kenyon Memorial Scholarships and three Stewart Family Endowed Scholarships, each for $2,500. Your continued support clearly makes a difference in the quality of program we can offer our students and is always appreciated.

Keith A. Teague, Interim Head, ECEN
Diversity is not a new word that comes as a mystery to us. It is perceived in a positive way when mentioned. Diversity in the student bodies, faculties and staff is important for universities and colleges to fulfill their primary mission, which is providing a high quality education.

There are several factors that make diversity a primary focus at schools. The American Council on Education claims that “diversity enriches the educational experience by teaching others through their experiences, beliefs and perspectives. These lessons can be taught best in a richly diverse environment. It promotes personal growth and a healthy society by challenging stereotyped preconceptions, encouraging critical thinking and helping students learn to communicate effectively with people of varied backgrounds. It strengthens communities and the workplace by preparing students to become good citizens in an increasingly complex society, fostering mutual respect and team work and building communities whose members are judged by the quality of their character and contributions. It enhances America’s economic competitiveness by making effective use of the talents and abilities of all our citizens in work settings that bring together individuals from diverse backgrounds and cultures.”

Fortunately, here at ECEN, we can say that we are achieving these goals of diversity in a positive fashion. Several electrical engineering graduate students from five different countries have shared their views and opinions about how they feel here in the School of Electrical and Computer Engineering, and even more important, how they feel in their community within OSU and Stillwater.

For the most part, the international students feel at home here with such an array of different people and cultures that surround their everyday schedule of going to classes, work and just venturing around the campus.

According to Benyam Tesfaye Asnake, from Ethiopia, “There are a lot of things that I like, especially the way people interact, and they are very communicative. People often listen to you and share [their] culture. OSU has been very helpful and friendly, especially in my department. Whenever I need help, everybody [is] there for me, including my advisor [and] my coworkers.” Asnake believes the system here has made him feel very comfortable to where he can express himself, and he can learn whatever he wants to learn.

For Asnake, it was not difficult for him when he first arrived here at OSU, because he was well informed. Through the activities and cultural events, Asnake has found OSU to be very encouraging of diversity. He says he has seen a lot of openness, “so if you have something to show, something to share, everybody is very [open] to learn and to see what you are doing.”

Lalitha Ramaswamy, from India, expresses the same feelings about the open-minded overall attitude at OSU. “Most of the Americans don’t know much about our culture, but we have the opportunity to teach them through cultural nights,” said Ramaswamy. She feels that everyone at OSU has a smile on their face and is very welcoming.

Thitiporn from Thailand shares her thoughts on diversity at
OSU as well, “The first thing I noticed when I came here is there are a lot of people from India. That makes me feel more comfortable, because there are other cultures at this school, and I am not the only one.” Thitiporn appreciates the education that she was able to attain from OSU.

She will miss the fact that students can participate more in a classroom setting when reacting with professors, as opposed to in Thailand, where the professors teach and the students listen. According to Thitiporn, “I like [classes] better in America, because you can get more ideas by listening to what other students have to say…by allowing students to interact, students can give their insight to things.” Thitiporn explained that in Thailand, they are taught to respect their elders, which means they are supposed to remain silent in class and let the professors do all the talking.

Daghan Acay from Turkey really enjoyed coming here because of the education and lifetime experience. He believes that everyone should experience different countries and cultures. “It is kind of a breakthrough in a human’s life,” said Acay.

As far as Acay’s thoughts on diversity at OSU, he feels that everyone has always been extremely helpful. “They are always smiling, and it seems they are always willing to help. I don’t ask for help much, but if I would then I definitely would get help. I like the way [universities] in America treat students,” said Acay.

Pedro de Lima from Brazil appreciates the fact that OSU is very diverse, especially in the electrical and computer engineering department. However, Brazil is similar to the United States in which it is also a place that has been colonized about the same time, “and what we call Brazil is actually people from all different parts of the world living together; it’s kind of like the United States,” said de Lima. The main difference is that Brazilians are less aware of their different origins.

According to de Lima, definitions like “African American” and “Asian American” are definitions that just don’t exist in Brazil. People just feel that they are all Brazilians in Brazil no matter what part of the world they come from. “This is good in a sense, because it makes people more integrated, but it’s not so good in another sense, because origin-related communities don’t actually stick together in Brazil,” said de Lima. He believes it is important and healthy to work with people from many different backgrounds and that it is a very rich experience.

De Lima says that in their labs, professors and students from all types of backgrounds will share ideas and comments. According to de Lima, people always have different ways of thinking on the theoretical side and sometimes on the economical side. De Lima said, “Different people are thinking of new approaches, new ideas, new products, and they will ask questions like, ‘How is it in Africa or how is it in China?’ It’s very interesting.”

After having the chance to talk with these five international students, they have confirmed through their feelings and experiences that OSU, and especially ECEN, is already rich with diverse cultures, people, religions and backgrounds.

Diversity is an important issue that our university and our country will continue to improve relationships and businesses with. It is something that we will always have to learn. According to Earl D. Mitchell, Jr., Ph.D., Associate Vice President for Multicultural Affairs, “In the future, the full participation of currently underrepresented people will be the key to the strength and prosperity of America.”

- by Karen Arlene Holt
Assistant Editor

“America is a nation of nations, made up of people from every land, of every race and practicing every faith. Our diversity is not a source of weakness; it is a source of strength, it is a source of our success.”
- U.S. Secretary of State Colin Powell
Senior Design Revision

The School of Electrical and Computer Engineering is constantly looking for ideas to enhance the quality of the education it provides for the students. ABET requirements for a capstone design course places an emphasis on the nature of the course as that of being a **culminating design experience**. The revised procedures used to administer Senior Design II (ECEN 4023) have three major driving goals addressing the need to: 1) develop a quality capstone design experience for the seniors, 2) provide a consistent experience for all students, and 3) equally involve all faculty in the department in the overall design experience.

In order to distribute the workload evenly, several different faculty tasks have been identified in association with the course. The faculty tasks fall into three major categories: 1) member of the organizing committee, 2) advisor to a project team, and 3) assessor of demonstrations, oral exams and written reports. There will be three faculty members on the organizing committee. Each semester one person will leave the committee, and a new person will be added, so no one will serve more than three semesters in succession. Over time, all faculty members will be rotated through the organizing committee. Each faculty member will usually advise one project team per year. In the semester in which they are not advising a project team, they will assess performance on oral exams and written reports. Faculty not traditionally involved in the senior design process will have the opportunity to learn the ropes from those who have been more aggressively involved. This distribution of faculty involvement will ensure long-term stability and sustainability of this capstone course and will ultimately improve the quality of the course.

There are major changes for students in the mechanisms of team formation, project selection, and reporting/assessing metric definitions. Traditionally, students as a part of Senior Design I formed teams, selected projects, and wrote a proposal to be executed in Senior Design II. These three elements have been radically altered in the revision of procedures. Teams will be formed by the organizing committee in order to distribute the capabilities of all teams more uniformly and to more accurately represent teams found in engineering firms – they are quite mixed in intellectual capabilities (all are smart of course, but not all in the same way!), ethnic diversity, and outside interests. Projects for the revised course will be solicited from industry, faculty, and Senior Design I and then refined by the organizing committee. Students will be asked to rank their top 3 projects and then teams formed by a combination of this ranking and those elements that ensure heterogeneity. After team formation, students will write a proposal/project description that will describe required elements that demonstrate team capabilities to handle the project in a timely and successful manner.

These changes are more fully detailed on the Senior Design II web-site along with deadlines and complete project descriptions. While this revision represents a significant change from past practice, it is anticipated that these changes will greatly enhance the design experience for ECEN seniors at OSU and will genuinely represent a **culminating design experience**.

Some projects for student selection/ranking this semester include:

- **A Wireless Mobile Sensor** consisting of three main components: (1) a mobile platform, (2) a suite of sensors, and (3) a wireless communication link. These mobile robots/sensors are currently being used in many applications ranging from space exploration, to battlefield assessment, to search and rescue operations.

- **A Wireless Metronome System** to be designed that will provide a unified source of tempo for a group – such as a teaching aid for band instructors and drummers needing to communicate beats to band members.

- **Micro-ART – Micro-Advanced Reconfigurable Tracking System**: Using a complex digital acquisition and processing board based on Xilinx FPGAs, designed and provided by Boeing SVS, a real-time image tracking system will be designed.

- **A Portable MP3 Player with Compact Flash Interface**: A portable MP3 player with compact flash interface will be designed using a microcontroller and MP3 decoder.

- **Wireless Keyboard**: A wireless keyboard system will be designed and implemented, by replacing cable between the key board and the computer with a commercially available transmitter and receiver will be adapted to provide the needed link.

- **Automobile Message Board (Sponsored by Electric Wheel Company)**: The objective of this project is to display messages on the rotating wheels of a car. There will be a “main” computer on which the user can enter messages, and then the main computer will send the message to a “slave” computer, which in turn operates a series of 6 to 24 LED’s.

- **Lab Station for Electromagnetics**: Model, design and build an electronic position sensor using an electromagnetics simulation package to model the potential and current distributions in a resistive film, investigate chemical deposition or vacuum evaporation techniques to attach arbitrarily shaped metal contacts and use LabView software for data acquisition of probe position.

- by Charles Bunting
  Associate Professor
Daniel’s Destiny

Dr. Ed Daniel did more than reach the stars; he traveled beyond them. Dr. Daniel attended a magna high school in Detroit and was enrolled in an electronics class when the Spartan School of Aeronautics in Tulsa, which focuses its studies in electronics and aviation, visited his high school. A recruiter informed him about Spartan and the opportunities it provided. So, Dr. Daniel made his way to Oklahoma to attend Spartan, and later decided to pursue electrical engineering at Oklahoma State University.

After two years at Spartan, Dr. Daniel graduated with an Associate degree in Aviation Electronics while maintaining a 4.0 GPA. He received several scholarships to attend OSU thus solidifying his choice to move to Stillwater. He earned his Bachelor and Master’s of Science degrees in Electrical Engineering at OSU, and on July 23, 2003, Dr. Daniel officially passed the oral examination of his dissertation research, thus completing the final requirement for his Doctor of Philosophy degree in Electrical Engineering. His advisor is Dr. Keith Teague.

Attending school at OSU provided more than an education in electrical engineering. While in school, he married Cherdena (in December 1997), fathered a three-year-old daughter, Cheryl Gabriel, and is expecting another child. Some of his favorite ways to spend time with his family are going to plays and visiting the Omniplex in Oklahoma City. Dr. Daniel also enjoys sharing family time at the park, watching movies, and traveling.

Dr. Daniel received over thirty scholarships, fellowships, awards, and honors while attending OSU, including the NSF Louis Stokes OKAMP and Thurgood Marshall Scholarships, as well as the State Board of Regents Minority Doctoral Study Grant and NASA Oklahoma Space Grant Consortium Fellowship. He was involved in five honor societies and had four organizational affiliations. He wrote nine publications and held positions of advisor, president, vice president, treasurer, secretary, general member and conference chairman of various organizations. He had over twenty-five invitations to give speeches, workshops, seminars, classes and research presentations both on and off campus. He had internships with the Central Intelligence Agency (CIA), General Motors Corporation (GM) and performed research for the Department of Defense.

While attending OSU, Dr. Daniel was involved in numerous extra-curricular activities. However, with all of his classes, research, and activities, he still made it a priority to spend time with his wife and daughter.

Dr. Daniel deserves credit for rebirthing the OSU undergraduate chapter of the fraternity, Alpha Phi Alpha, which became inactive due to the graduation and attrition of its members. Therefore, as a graduate student, he reactivated the fraternity and returned the chapter to good standing on campus. Dr. Daniel rallied alumni, recruited new members, and mentored them to become outstanding fraternity and campus leaders. “Now the chapter is back on campus, fully functional. It was a lot of work, but well worth it,” said Dr. Daniel.

He chose to rebirth the fraternity because of his love for the university and the opportunity it provides for young African American males. Dr. Daniel said, “I saw a need there, and I did not want to see [the fraternity] die out; I wanted to continue the legacy.”

Investing much time into building the fraternity was rewarding for Dr. Daniel. Students have looked up to him as a father figure, which is important to him considering he grew up without a father.

Dr. Daniel has a passion for teaching and mentoring. “I enjoy motivating people from all backgrounds, and I try to mentor students whenever I can...I love to mentor students and give them encouraging words,” said Dr. Daniel.

Now that Dr. Daniel has all the degrees he needs, he plans to enter the workforce, but his passion is to teach. He desires to first go into industry to make his impact on the world, and eventually, Dr. Daniel wants to retire as a professor.

- by Karen Arlene Holt
Assistant Editor
Meet the President of SGA!

Sitting in the tasteful atmosphere of the new trendy bistro, Café Bella, in Stillwater, the new president of the student body shared many of his thoughts, opinions and ideas about life as an electrical engineering student, the role of Student Government Association (SGA) president and views on diversity.

Huy Le, electrical engineering junior, has been more than the average student at OSU. He has achieved more goals in his short time here than most. Although Le has received numerous awards and honors and held high quality work experiences, he does not bother to boast about them. His top priorities involve serving the students in his community and growing within himself.

Le’s parents immigrated to America in the late 1970s with hopes and dreams of a better life for their family. His father served in the South Vietnamese Air Force and was the equivalent of a U.S. Senator. Yet he went from flying airplanes and commanding troops to mowing lawns when he first came here, while his wife worked at a convenience store.

Le’s parents, as well as most immigrants, were willing to work hard to give their children a better life. They experienced challenges as any generation of immigrants does. According to Le, “It’s a challenge for the immigrants, because at one point half of America wants you there, because they want you to start a new life, and half of them are like, ‘Why are you here?’” Le admitted that his parents’ decision to move to America and start a new beginning is a humbling feeling, and he’s glad they did.

Reflective of his parents’ hard work, they influenced Le into going into a profession that would offer him an opportunity to grow within that field. Le decided to study electrical engineering, because he wanted the challenge of it. It has caused him to relearn his way of thinking, since it is such a technical area.

“I won’t lie to you; it’s unbelievably difficult for me. It’s just interesting, because the field’s always changing, and technology is always moving; you know you just can’t ever stop learning about it. You always have to learn and reinvent yourself,” said Le.

Le believes diversity enriches the educational experience, and that it goes beyond the color of your skin. “It goes into what talent you have, the way you were brought up, your level and way of thinking, how you talk to people, how you feel about a certain issue. The moment you remain in this homogeneous situation, and whenever you have the same people around you; it stifles any sort of growth,” said Le.

He feels in order to increase accomplishments, one needs to pull in their best talents, “that’s why you don’t see everybody in the electrical engineering department working on the same thing.” Le describes diversity as “the puzzle that nobody really understands how to piece together, but we’re working on it, just as a society as a whole. And when we reach that certain level of excellence, is when everything is complete.”

Le has been involved with SGA for the past three years. He expects there are many opportunities for new things to occur on campus. Le brings advantageous experiences as president in knowing the administration and knowing what venues to go through. He decided to run for president because of his deep concern for the university.

Le has many goals as president for this year. They are trying to establish wireless Internet throughout the campus; they have already redesigned the OSU e-mail interface and they found a good team to work for them in terms of diversity. However, they are not going to try and be all things to all people. According to Le, “…we’re definitely going to help improve how students interact on campus and what things occur on campus. We know what’s going on, and it’s just a matter of doing it.”

Le’s passion is to never settle for what he has. He desires to constantly improve himself and never quit learning, because according to Le, “The moment you quit learning, you cease to progress; you cease to grow.”

- by Karen Arlene Holt
Assistant Editor

Vital Statistics

Name: Huy Le

Date of Birth: July 21, 1982 in Oklahoma City, OK

Hobbies: plays Tennis; watches football, baseball, basketball & cricket; movies & music

Present Position: Electrical Engineering junior; Student Government Association President

Work Experience: Williams Energy; OSU Student Government; Multimedia Presentations

Awards/Honors: President’s Honor Roll; Dean’s Honor Roll; OSU Top Intro to Engineering Student Award; Lucent Technologies Four-Year College Scholarship; Phi Eta Sigma Honor Society; OSU Valedictorian Scholarship; President’s Leadership Class Scholarship; OSU President’s Leadership Class; Mortar Board Senior Honorary Society

Extracurricular Activities: IEEE
President; Mortar Board Senior Honorary Treasurer; President’s Leadership Council Facilitator; Student Alumni Board Member; Student Government Association President/V.P’s Chief of Staff; Freshman Representative Council Member; Lights on Stillwater Philanthropy Vice-Chair; The Big Event Philanthropy Sponsorship Chair
Research & Scholarly Activity (Spring 2003)

Papers Appeared in Print:


Grants/Contracts Awarded:

R.A. Cheville: $36,000; National Science Foundation, “Relevancy Enhancement Achieved by Laboratories and Lecture Integrated for Engineering Education (REAL LIFE) Adoption of a Relevant Undergraduate Curriculum - REU”

R.A. Cheville & D.R. Grischkowsky: $149,314 (additional funds); Department of Energy, “Terahertz Spectroscopy of Complex Matter”

D.R. Grischkowsky: $44,000 (additional funds); Rensselaer Polytechnic Institute for Semiconductor Research Corporation, “THz Interconnect”

D.R. Grischkowsky: $175,000 (additional funds); National Science Foundation, “Unique Applications of THz Time-Domain Spectroscopy and Waveguide THz-TDS”

C.G. Hutchens: $84,000; Space Naval Warfare Systems Center San Diego (SSCSD), “Proposal to Investigate the RF and Analog Scaling Limits of Nanometer CMOS”

W. Zhang: $8,500 (additional funds); Oklahoma EPSCoR for Oklahoma State Regents for Higher Education, “Picosecond and Femtosecond Dynamics of Functionality Active Nano-particles”


C.F. DeYong & S.A. Morris: $260,440; Sverdrup Technologies, “Demand Forecasting - Task 2.1”


K.A. Teague: $100,000 (additional funds); Maryland Procurement Office, “FNBDT: Investigation of Enabling Technologies for Secure Multimedia on Your Desktop”

J.M. Chung: $19,501 (additional funds); Sciperio, Inc., “Hybrid Wireless and Wired Networking Systems”

Awards:

G. Scheets, Associate Professor, has been named an “NTU Outstanding Instructor” for the tenth consecutive year.

D. R. Grischkowsky, Regents Professor and Bellmon Professor of Optoelectronics, has received the “William F. Meggers Award” in recognition of outstanding work in spectroscopy presented by the Optical Society of America (OSA). The OSA has awarded him for his exhibited dedication, ingenuity and perseverance.
A Distinguished Career

Dr. K. Sam Shanmugan was born in 1943 in a small village of about three hundred people named Kalvettu-Palayam in South Central India. Most of the people in the village were farmers.

Electricity came to Dr. Shanmugan’s village in 1953, and their house was the only one in the village with electricity for a long time. They also had the first radio in the village. As a ten year old, Dr. Shanmugan was impressed by the magic of electricity and the little radio that brought them music from far away. This had some influence with his decision to become an electrical and communications engineer.

Dr. Shanmugan attended Madras University where he completed his B.S.E.E. degree in 1964. He was then admitted to the Indian Institute of Science in Bangalore, India where he finished his M.S. in 1966. After completing his M.S. degree he decided to come to the U.S. to get an advanced degree with the dream of working for NASA in the Space Program. One of his cousins was attending OSU in the sixties, and he encouraged him to come to Stillwater.

Life in Stillwater from 1966 to 1970 was bliss according to Dr. Shanmugan. After two years in the Ph.D. program, he went to India to get married. His wedding was an arranged wedding, and he has been happily married to Radha for thirty-five years. She joined him in Stillwater in the fall of 1968. Being newly married made life in Stillwater much more romantic and enjoyable.

The OSU campus during the sixties was conservative, predominantly white, but there were no racial protests against the Vietnam War. There was a large “aggie” crowd who did not mix with any other group on campus, and a comparatively small African American and foreign student population. The foreign student population pretty much stuck together. Dr. Shanmugan was fortunate enough to have a broad range of friends. While there was no overt discrimination in Stillwater, there was some bias in housing and mild tension between various racial and ethnic groups.

Dr. Shanmugan graduated in 1970 with his Ph.D. and followed Art Breipohl to the University of Kansas as a Post Doctoral Fellow. After two years at KU, he joined Wichita State University in 1973. While at WSU, he wrote his first book on Digital Communications, which eventually became a classic in the field of communications. He left WSU in 1978 and joined AT&T Bell Laboratories where he did research in Satellite Communication Systems and became interested in Simulation of Communication Systems, which became the main research area of his career.

Although his career at Bell Labs was satisfying, living on the east coast presented some problems for him and his wife as they tried to raise their two sons, Ravi and Kannon. His sons were extremely gifted, but the public schools in New Jersey, as well as the living conditions, were not a conducive environment for a young family. So they started looking for an opportunity to return to the Midwest.

Vital Statistics

**Name:** Dr. K Sam Shanmugan

**Date of Birth:** January 6, 1943 in Kalvettu-Palayam, south central India

**Family:** wife, Radha; sons, Kannon, 31 & Ravi, 26

**Present Position:** Distinguished Professor & Chair in Electrical Engineering & Computer Science; University of Kansas

**Education:**
- Madras University, India; Bachelor’s in Electrical Engineering, 1964
- Indian Institute of Science, Bangalore, India; Master’s degree in Electrical Engineering, 1966
- Oklahoma State University, Stillwater, Oklahoma; PhD in Electrical Engineering, 1970

**Leisure Activities:** cooking; hiking; fishing; swimming; lifting weights; college football & basketball; classical musical; traveling including trips to India, Spain, Portugal, England, Italy, France, Turkey, New Zealand, Australia, Thailand & Sweden

**Most Significant Accomplishments:** research in Simulation of Communication Systems; wrote three books & is working on another book; developed software packages that helped design the next generation of wireless communication systems; his students’ success
In 1980, KU invited Dr. Shanmugan to join the faculty and start a graduate and research program in Telecommunications. During the eighties at KU, he worked his academic career and developed an internationally recognized graduate and research program in telecommunications. Today the research program in Telecommunications at KU is one of the best in the field with the research volume topping $6M/year. During this time he also co-authored two more books and supervised a large number of graduate students.

He was elected as a Fellow of the IEEE in 1984 and was appointed the Southwestern Bell Professor of Telecommunications for his research contributions to the field of computer-aided design of communication systems. He received numerous teaching awards from KU and the Huguchi Award for outstanding research. A few years later, he developed a software program for designing communication systems. This software package became popular, and he saw an opportunity to commercialize this technology for which he got a license from KU and began his own company.

Eventually the technology and his company was acquired by Comdisco Systems, which was later absorbed by Cadence Design Systems, a multibillion dollar CAD software company located in San Jose, CA. He took leaves of absence from KU to work for Comdisco Systems as a Senior VP of Engineering from 1988-93 and later on for Cadence Design Systems as a General Manager and Vice President of the Alta Group from 1993-96. While in San Jose, he also worked as a Chief Technology Officer for a small company called Systems and Networks. At the Alta group he was responsible for the business of developing, marketing and selling of system level design tools. The software packages he developed while at Cadence are still being used worldwide for the design of sophisticated wireless communication systems.

In 1996 Dr. Shanmugan decided to return to KU, because the university offered him an opportunity to keep one foot in the academic world and another foot in the business world. During the past 10 years, Dr. Shanmugan has been teaching and doing research in wireless communications and completing his fourth book. In 1999 he served as the acting chair of the EECS Department at KU and again this year. He and his wife spent the first part of 2000 at the University of Canterbury in New Zealand where he was a Visiting Erskine Scholar.

For the first time in his professional career, he does not have any specific or major goals for the next three or four years other than enjoying his teaching, research and writing. He has realized that the best of his professional life may be behind him, and it is up to his students to push the envelope while he enjoys his personal life and what lies ahead. There are many more mountains to climb, more exotic places to visit, more fine wines to enjoy and the best of all, looking forward to grandkids.

Dr. Shanmugan’s oldest son Kannon is thirty years old. Kannon received his Bachelor’s degree in Classics from Harvard, his Master’s degree from Oxford as a Marshall Scholar and his Law degree from Harvard.

Dr. Shanmugan and Radha have many hobbies and interests, but their favorite hobby is traveling around the world. They have made several trips to India, Spain, Portugal, England, Italy, France, Turkey, New Zealand, Australia, Thailand and Sweden just to name a few places. On all of these trips they visit the local markets, museums, historical sites, hike and enjoy the local food and wine. They have snorkeled off the Great Barrier Reefs and climbed the Ayers Rock in Australia, hiked up to glaciers in New Zealand and Alaska and roamed the rain forests of Hawaii.
Mohamad K. Jaber, born in Beirut, Lebanon on February 10, 1962, attended Oklahoma State University between 1983 and 1987. He graduated May 1987 with a Bachelor’s degree in Electrical Engineering/Computer Engineering. After graduating, Jaber moved to Toronto, Canada and struggled for a year before starting his first job at a small engineering firm as a draftsman. Eighteen months later, he joined Ellard-Willson Engineering Ltd., a medium-sized Mechanical/Electrical Engineering firm that specializes in the building industry. He was then hired as a junior engineer.

Through hard work, dedication, long hours and no vacations, he quickly rose through the ranks to become a full-pledged partner in 1996. In April of 1998, he accepted an offer to join SmithGroup Inc. as a senior Electrical Lead Engineer. SmithGroup is an Architectural/Engineering firm based in Detroit with offices in nine other locations within the United States and is ranked number four nationwide.

In 2002, Jaber was promoted to the position of Chief Electrical Engineer as well as an associate within the firm and moved from the health and research studio to the learning studio. His experience is diverse in health care, research facilities, office buildings, universities and industrial plants. His specialty is in power quality, EMI and data centers.

Jaber is married to his wife, Rima, and they have two twin sons, Kassem and Khodr. Some of the projects he worked on are: Ford Field, Henry Ford Hospitals, DMC Hospitals, Henry Ford research laboratories, Health Professions Building at Central Michigan University, Commons Building at University of Michigan in Ann Arbor, the library and computer science building at Michigan Technology University, and others.

Bert Morphis, graduated from OSU in May 1949 with a Bachelor’s degree in Electrical Engineering. He grew up in Okfuskee County, Oklahoma and was the eldest son of a sharecropper. Before he was seventeen he lived in about twelve different farmhouses, all without electricity. Shortly before he joined the army in 1943, he moved into his first house with electric lights. All those years without electricity encouraged him to appreciate how important it is. He has had a life-long interest in things electrical and electronic; so he recognized it was natural to become an electrical engineer.

After serving as an infantry rifleman and rifle squad leader in Europe for about a year, and being wounded twice, Morphis returned home and enrolled in OSU in January 1946. Upon graduation he worked for Public Service Company (PSO) of Oklahoma in Tulsa as an engineer trainee. He spent twelve very exciting and challenging years as a power sales engineer, consulting with commercial and industrial customers and helping them to use electric power most efficiently and effectively. In 1962, he became manager of power sales. Then in 1969, he was promoted to director of marketing.

In January of 1973, PSO requested Morphis to form a Nuclear Power Division and build the Black Fox Power Station, a 2300-megawatt nuclear power plant near Inola. He served as Assistant Vice President and director of nuclear power up until the Black Fox project was cancelled due to the collapse of the oil industry and its adverse impact on Oklahoma’s economy. He then returned to his old position as Director of Marketing, with added responsibilities for public relations.

Morphis retired in 1986 after thirty-seven years of service with PSO and has been extremely busy since then. He has remained very active in the church in various positions since his retirement, including serving three churches as a deacon and one as an elder, and he plans to continue so long as he is physically able.
Helen Daggs is more than just the Senior Unit Assistant in the School of Electrical and Computer Engineering. She is practically the advisor for all the students that come cascading through the department. One could say that Daggs, the newest member of the ECEN family, is the best friend the electrical engineering students could possibly have while in school, and with her friendly smile, it is impossible not to appreciate her company and service.

Daggs began working for ECEN a year ago in October of 2002 after Rea Maltsberger retired. Daggs has worked for OSU for eighteen years. During this time, she has been employed with the Graduate College for twelve years and for the Registrar’s Office for five years. What she finds the most enjoyable about her job, and always has, is being able to help and assist students towards their goals. She loves having direct contact with the students and enjoys advising them.

Daggs was born in Biloxi, Mississippi. However, she grew up in Ponca City, Oklahoma where she graduated high school. She lives a peaceful and content life with her husband Jimmy and has one daughter, Aimee, who is also employed for OSU and works in the College of Arts and Sciences. Daggs hobbies include camping, playing golf and fishing. We are very lucky to have Daggs on board with us as she serves our students the best way possible.

Dr. George Scheets received the National Technological University (NTU) award on February 7, 2003, his tenth consecutive year. NTU is a “consortium of universities across the country that offers classes at a distance to industrial sites,” according to Dr. Scheets. Every year, NTU names the instructors that achieve the highest ratings from students in industry.

One of the key reasons Dr. Scheets receives this award each year may occur because he looks at the camera as opposed to staring at the students in the classrooms. According to Dr. Scheets, “I’ve watched other instructors teach at these video studios, and they never look at the camera. So the students watching this at a remote site feel left out.”

The students of NTU are full-time employees in industry and are scattered around the country. They are working on acquiring their master’s degree part time and take these classes via video conferencing, or in most cases, it’s taped, and they’ll receive a compact disc or videotape.

Dr. Scheets has been teaching at Oklahoma State University since the fall of 1987. He attained his bachelor’s degree in General Engineering at WestPoint in New York. After graduating from West Point, Scheets joined the Army, and five years later, he traveled to Kansas State University where he earned his master’s degree and Ph.D.

Dr. Scheets and his wife, Kay, chose to come to OSU, because they wanted to live in a small-town atmosphere rather than live in a big city. They enjoy spending much of their quality time together and with their dog and three cats.

- by Karen Arlene Holt
Assistant Editor


Doctor of Philosophy: Pathomthat Chiradeja