Paduana Wins Federal Grant

The National Science Foundation has awarded a matching fund equipment grant totaling $19,400 to the School of Engineering and Computer Science, effective June 1, 1985. The grant is for support of a project, "Interfacing a Microcomputer with Scientific Instrumentation in a Geotechnical Laboratory." Dr. Joseph Paduana, Professor of Civil Engineering, is the project director.

This grant provides funds for further development of a versatile electronic system suitable for laboratory testing of soils. A computer-based instrumentation system was successfully introduced and integrated into the School's instructional program during the 1984-85 academic year. One of the experiments, the consolidation test, runs for more than a week and thus effectively demonstrates the power and usefulness of a computer-based instrumentation system. The NSF grant funds will be used to improve and expand the system.

CE student Eric Moran monitors the computer-based instrumentation system as fellow student Redwan Jebbeh observes a soil specimen during a triaxial strength test.

DEC and CSUS Launch $2 Million R & D Venture

On September 1, 1985, Digital Equipment Corporation and California State University, Sacramento announced a $2 million agreement that will provide the University with state-of-the-art computing hardware and will provide Digital with University research and technical expertise in networking and campus-wide support of faculty and students. The announcement was made by Dean Don Gill, and R. Wendroff, District Manager for DEC.

Wendroff said, "Digital has long recognized the benefits of stimulating cooperative research relationships between our company and external research centers. By establishing and maintaining a dialog with colleges and universities, Digital can augment its own research programs and help influence future product directions. This relationship with California State University, Sacramento illustrates the mutual benefits possible from such endeavors."

"We now look forward to working with the University on the development of the campus-wide computing network and network maintenance programs, the implementation of which will impact undergraduate and graduate instruction, research, text processing, office automation, and distributed administrative systems. In addition, the design of new computer-based education programs will increase the availability of courseware for all institutions of higher education. Through the implementation of this joint program, we will continue to meet two important goals: the on-going support of higher education and the development of additional software programs and tools for our VAX and personal computer families."

Cook Is 1985 Outstanding Biomedical Engineering Educator

Albert Cook, Professor of Electrical & Electronic Engineering, was named the Outstanding Biomedical Engineering Educator of the Year by the American Society for Engineering Education. According to the ASEE, Dr. Cook won the award for his "organizational skills, creativity, and his extraordinary motivation and perseverance not only in technical matters but also with respect to his humanitarian instincts and empathy with people." He has published some 15 papers and is co-editor of two important and high quality text books in biomedical engineering and editor of a new book on electronic assistive devices. A member of the E & CS faculty since 1970, Prof. Cook serves as co-director of the University's Assistive Device Center. This Center (which was featured in the March, 1985 issue of E & CS NEWS) helps to equip disabled persons with electronic or other devices that aid mobility, self-sufficiency, and communication.
Message from the Dean: A New E&CS

California State University, Sacramento, and Digital Equipment Corporation have entered into an agreement that has allowed CSUS to acquire, through a substantial equipment allowance, $2 million worth of computing and networking equipment from the entire Digital product line, with emphasis on VAX hardware architecture. In exchange, the University will develop application software for graphical display of engineering analysis and design, assist in the development of network maintenance programs, develop new computer-based educational programs which can be used throughout higher education, and provide a working demonstration site and showcase for Digital products.

This agreement is a step toward our goal of becoming one of the most technologically-advanced campuses in the Nation, where technology is used in intellectual service to students, faculty, and staff. The project will utilize the fiber-optic communications system being installed by AT&T, which will enable the simultaneous transmission of voice, video, and data communications throughout the campus. Over the next five years, we expect our School to invest over $30 million in a new building and equipment to provide state-of-the-art technology in our engineering and computer science programs. At the same time, we will assist Digital and the computer industry to improve the operation of computers in the university setting and to facilitate the use of computer-based educational materials at the college level.

Of particular interest to the School of Engineering and Computer Science is the added computer capacity which is available to all programs, including the Center for Computer-Aided Design. The Center currently has over 30 graphic terminals with software and support personnel who assist faculty to incorporate CAD concepts into the engineering and computer science curricula. The Center has received over $1 million in support from local industry and is a leading element in the School's effort to provide the best possible education.

With the new VAX systems, computers will be located at key sites in the School and the CSUS Computer Center. They will be tied together and accessed by students and faculty via the fiber optic cable network. We are pleased to be associated with Digital in this joint endeavor.

Engineering and Computer Science Scholarship Fund Established

On April 24, the Executive Committee of the Sacramento Valley Chapter of the California Society of Professional Engineers unanimously approved the allocation of $7,000 to establish the Engineering and Computer Science Scholarship Fund at California State University, Sacramento. The committee also resolved to provide an additional $3,000 to the fund before July, 1987. This additional funding, along with the initial allocation, will be maintained as principle in an interest-bearing account by the CSUS Financial Aid Office. As an endowment fund, only the annually accrued interest will be used to provide scholarship aid. Additional donations to the fund are being sought from a variety of individuals, organizations, and segments of the local corporate and industrial community.

To be eligible for the annual scholarship, a student must be registered in, or accepted to, the CSUS School of Engineering and Computer Science. Recipients will be selected on the basis of need, merit, and/or hardship by a scholarship selection committee.

Individuals or organizations wishing to contribute to the fund should contact Engineering and Computer Science Dean Donald Gillott or Assistant Dean Larry Hill.

Scholarships provided to E&CS students during the 1984-85 academic year totaled $35,600. The National Action Council for Minorities in Engineering provided $11,500 for students in the Minority Engineering Program (MEP). In addition, the statewide MESA program provided $2,000 in incentive awards for MEP students. Construction Engineering Management students benefited from grants from Carpenters' Local #586 amounting to $10,000 and from the Sacramento Builders' Exchange totaling $3,000. Additional scholarship aid was provided by the Engineers Council of the Sacramento Valley, the Society of Hispanic Professional Engineers, the American Society of Civil Engineers Ladies' Auxiliary, the Society of American Value Engineers, and the Pacific Gas and Electric Company.

E&CS NEWS is published three times during the academic year to inform our alumni and friends about student, faculty, and alumni activities, curricular developments, research results, and other items of interest. We invite your comments and suggestions. Please address all communications to the Editor,

Frederick H. Reardon, Associate Dean
School of Engineering and Computer Science
California State University, Sacramento
6000 J Street, Sacramento, California 95819

Publication of this issue was made possible by a grant from Cole, Yee, Schubert and Associates.

Dean Gillott accepts a check for $7,000 from Bob Raymer, of the California Society of Professional Engineers, to establish the E&CS Scholarship Fund. Assistant Dean Larry Hill holds the plaque on which the names of all donors to the fund will be inscribed.
New Faculty Join School

The School of Engineering and Computer Science was fortunate during the 1984-85 academic year in attracting several new members to its faculty.

One of the new members of the Computer Science Department is not new to CSUS. Gerry Frincke has been a member of the Psychology faculty since 1964, when he arrived fresh from his PhD studies at the University of Illinois. He now holds a joint appointment in Psychology and Computer Science. A specialist in human learning, Gerry has done postdoctoral work at the Institute for Human Learning at U.C. Berkeley and at the Graduate Theological Union in Berkeley. His interests gradually turned to computers and robots. He will soon add the M.S. in Computer Science to his list of degrees. Currently Gerry is doing research on robots that behave according to psychological models developed to explain human and animal behavior. His article, "Psychological Help for your Robot", was published in the Nov-Dec 1984 issue of Personal Robotics Magazine. The Frincke family includes his wife, Karen, a test development specialist for the State Personnel Board, two daughters, both studying for B.S. degrees in computer science, and a son in the Luther Burbank High School Academy for Science and Engineering.

Gerry Frincke

Joan Al-Kazily

Joan Al-Kazily, new Associate Professor of Civil Engineering, came to CSUS from the University of Rhode Island, where she taught all aspects of transportation engineering. Born in England, Joan earned her Bachelor's and Master's degrees in Civil Engineering at Liverpool University, and her Ph.D. at the University of California, Berkeley. After practicing in the United Kingdom, Iraq, and the United States, she put her career "on hold" for several years while raising her son, now studying electrical and computer engineering at Arizona State University, and her daughter, now in high school. Her current research interests include the application of computers in transportation and the effects of container handling procedures on the economics of freight transportation. Joan has published papers in Transportation Research, Transportation Research Record, and the Journal of the Waterway, Port, Coastal, and Ocean Division of ASCE. She enjoys cooking, sewing, microcomputers, swimming, and walking, as well as the company of her husband and children.

(continued on p. 5)
Outstanding Alumni Honored

Three alumni of the School of Engineering and Computer Science were honored at the 1985 Alumni Banquet for their outstanding professional and community service accomplishments. Following are the citations that accompanied these awards:

**Gene S. Porter, CE '60:** One of the early graduates of the Civil Engineering program at California State University, Sacramento, you have brought honor to your Alma Mater by your exemplary technical career and outstanding record of community service. A registered Civil Engineer in both California and Nevada, you have earned the respect of your colleagues in the structural engineering field and in the Sacramento region generally, as evidenced by your selection as 1985 Engineer-of-the-Year by the Engineering Council of Sacramento Valley. You own and operate your own consulting business, are active in several professional societies, and yet you still find time to devote to community activities. You have been active in Boy Scouts, Indian Guides, AAU Swimming, and in athletic programs for the handicapped, coaching and raising funds for Special Olympics events. The East Sacramento Rotary Club has served as the vehicle for much of your community service. You have been a member of the Club's Community Service Committee for more than six years. During your term as President, the East Sacramento Rotary Club received the first Presidential Citation ever awarded by Rotary International. You are indeed one of CSUS' Outstanding Alumni.

**Eric Heim**

Department of Energy. In your present position, Manager of the Productivity Development Department, you provide leadership and direction to a long-term strategic effort to improve the overall effectiveness and productivity of P G and E's operations. You have been active in community organizations, such as the San Francisco Active 20-30 Club, the San Francisco Junior Chamber of Commerce, the Monterey County Boy Scouts, the 4H Club of Marin County, and Youth soccer in Marin County. Your career, in both its industrial and community service aspects, will serve as a model for present and future generations of engineering students. Your University is exceedingly proud of you.

**Eric A. Heim, ME '65:** Employed by Pacific Gas and Electric Company soon after your graduation from California State University, Sacramento, you have advanced steadily, holding various engineering and management positions. As manager of Residential Conservation, you developed and implemented the country's largest weatherization financing program, called ZIP (Zero Interest Program), which has provided more than $175 million worth of interest-free financing for more than 500,000 dwelling units in northern and central California. You also developed, in cooperation with community groups, a special program that has weatherized more than 75,000 low-income family homes. These programs have received special commendations from members of the U.S. Senate, the California Public Utilities Commission, and the U.S.

**Dennis Davis**

**Dennis E. Davis, CE '66** Your career with the U.S. Army Corps of Engineers has given you the opportunity to use your technical talents in the service of your country. You have served well in various engineering and management positions, including five years as chief of the Contract Administration Branch of the Corps' Sacramento district. In 1981 you established and organized the Contract Administration Branch at the Western Area Office, Vandenberg Air Force Base, California. The high quality of your

(continued on p. 5)
New Faculty (Continued)

Vivek Wagle joined the School this year as a lecturer in Civil Engineering. He was born in Bombay, India, and earned his Bachelor's and Master's degrees at the University of Bombay. After working for two years with a consulting engineering company in Bombay, Vivek continued his education at Texas A & M University, where he earned the Ph.D. in 1984. While at Texas A & M, he was a graduate teaching assistant and was awarded the Amoco Foundation Award for Excellence in Teaching. His technical interests include computer-aided structural analysis and design and structural optimization. Vivek and his wife, Seema, have a ten-month-old daughter. He also enjoys Indian classical music and model railroading.

Martin A. Meyers joined the Computer Science Department this year as a full-time lecturer. Born in New York City, he earned his Bachelor's degree at the University of Florida and his Masters at CSUS. Prior to coming to CSUS, Meyers taught at the Truckee Meadows Community College and developed software for MAPS, Inc., a Sacramento-based company specializing in small business applications of microcomputers. In his spare time, Martin enjoys skiing, fly-fishing, and singing folk songs, accompanying himself on the guitar.

Accreditation Teams Visit School

Each of the undergraduate programs of the School of Engineering and Computer Science will be visited this fall as part of the periodic accreditation review process. The first team of visitors, organized by the Engineering Accreditation Commission of the national Accreditation Board for Engineering and Technology (ABET), will be on campus September 23-24. Made up of a team leader, one member for each of the engineering programs (Civil, Electrical & Electronic, and Mechanical), and observers from ASME and ASCE, the team will examine course materials, interview faculty and students, and talk to chairpersons and administrators from other parts of the University. On the basis of their observations, they will report the strengths and weaknesses of each program to ABET, together with their recommendations regarding continued accreditation.

In October, a team representing the Technology Accreditation Commission of ABET will examine the Mechanical Engineering Technology and Construction Engineering Management programs. This visit will be followed in December by the first accreditation review of the Computer Science program. The newly-formed Computer Science Accreditation Board (CSAB), the counterpart of ABET, has selected CSUS to be one of the first 30 programs to be evaluated.

In each case, a preliminary report of the team's findings and recommendations will be sent to the School for review and comment within four to eight weeks after the visit. The report will then be revised and submitted to the accrediting board. The board's decision will be made known in the late spring.

Outstanding Alumni (from p. 4)

work, especially during the construction of the West Coast Shuttle Launch Complex, has earned you the Department of the Army's Decoration for Meritorious Service, for "outstanding professional ability imaginative leadership, and noteworthy initiative." As a balance to your management activities with the Corps, you share your talents and energies with your wife and five children. Through your accomplishments you have brought honor to your University; it is appropriate to honor you as an Outstanding Alumnus of the School of Engineering and Computer Science.
Cole, Yee, Schubert & Associates, Structural Engineers

Cole, Yee, Schubert & Associates is the largest consulting structural engineering office in the Sacramento Metropolitan area. Established in 1963, the firm has provided services for more than forty architectural firms and for all of the major local contractors. They have worked for such industrial clients as Campbell Soup, Procter and Gamble, and Pacific Telephone, as well as for the City of Sacramento, the County of Sacramento, the Corps of Engineers, and the Office of the State Architect. With such a large number of clients, the firm's experience has been quite varied. Completed projects include antenna towers, elementary and high schools, libraries, convalescent and general hospitals, industrial buildings, sewage and water treatment facilities, shopping centers, airports, restaurants, parking garages, and housing projects.

The staff of eighteen includes four registered Civil Engineers and seven persons registered as Civil and Structural Engineers in the State of California. Registrations as Civil and Structural Engineers in the state of Nevada, Oregon, Montana and Washington are also held by various principals of the firm. The officers of Cole, Yee, Schubert & Associates are not only outstanding in their profession, they are leaders in the greater Sacramento community.

Eugene Cole, Chairman, a past president of the Structural Engineers Association of California, serves on the Board of Directors of the Sacramento Science Center and Junior Museum and has been a member of the Industrial Advisory Board of the School of Engineering and Computer Science from the time that Board was first established.

President Jimmie Yee has held several offices in the Structural Engineers Association of California, has served on the Sacramento City Civil Service Board, and currently is a member of the California State Board of Registration for Professional Engineers and the National Council of Engineering Examiners.

Carl Schubert, Executive Vice-President, in addition to his service as a member of the Board of Directors of the Consulting Engineers Association of California, has been a member of the Sacramento City Planning Commission and of the Board of Trustees of the Sutter Community Hospitals.

Through the professional services and community activities of its dedicated staff, Cole, Yee, Schubert & Associates will continue to make significant contributions to the high quality of life in the greater Sacramento area.

Faculty Activities

Lester Gabriel, Civil Engineering, was honored by the CSUS Chapter of the Phi Kappa Phi honor society as the "Outstanding Faculty Member" for 1985 at the society's annual banquet on April 29. Dr. Gabriel was presented with the award by Wallace Albertson, chair of the CSU Board of Trustees. He was also initiated to Phi Kappa Phi membership together with 13 juniors, 93 graduating seniors, and 23 graduates from various disciplines.


James L. Post, Civil Engineering, is co-author of a paper, with John L. Burnett of the California Division of Mines and Geology, "Roscollet Type Locality, El Dorado County, California," in the May 1985 issue of California Geology.

Francois Cheong-Siat-Moy, Civil Engineering, presented a paper, "Frame Stability Provisions in Load and Resistance Factor Design," at the ASCE Structural Engineering Congress in Chicago. Prior to the Congress, he participated in a meeting of the Committee on Compression Members. Dr. Cheong-Siat-Moy has been designated as the organizer and chairman of a technical session on "Columns in Frames" at the 1986 Structural Engineering Congress, to be held in New Orleans, September, 1986.

Jose J. Granda, Mechanical Engineering, presented a paper, "Computer Simulation of Hydraulic Control System Dynamics," at the 29th Heat Transfer and Fluid Mechanics Institute, held at CSUS on June 20-21, 1985. The Proceedings of the Institute were edited and published by Ngo Dinh Thinh, Mechanical Engineering, and Frederick H. Reardon, Associate Dean.

Albert M. Cook, Biomedical Engineering, will deliver the 1985 Homecoming Faculty Address, "Attacking Disability, Byte by Byte," on November 21, at 2:45 p.m. in the North Gym.