



College of Engineering University of Hawaii/Manoa

A Newsletter for Alumni and Friends

Spring 1992

Geolabs-Hawaii establishes CE endowment

C.W. Associates Inc., (dba Geolabs-Hawaii) recently made a \$100,000 gift to the Department of Civil Engineering that has been used to establish the Geolabs-Hawaii Geotechnical Engineering Endowment.

The endowment will provide roughly \$5,000 per year in expendable income. The department has proposed that the income be used to support:

- visiting guest lecturers and scholars.
- part-time teaching assistants.
- continuing education courses for practicing engineers and technicians.
- the operation and maintenance of laboratory equipment and computers.
- a permanent seminar series in geotechnical engineering.

Geolabs president and UH alumnus Bob Y.K. Wong made the donation to enable the continued improvement of the program.

"It's something for a good cause which I personally believe in and am willing to sacrifice to make the funds available," he said. "I'd like to use the endowment as a vehicle to bring in experienced colleagues so they can come to Hawaii and share their experiences with the students, faculty and the profession.

"That's one way we can be exposed to state-of-the-art construction
(see *Endowment* page 5)



(L to R) ME department chairman Ping Cheng, interim dean Reginald Young, Wavefront president Bud Enright and ME associate professor Junku Yuh display the new computer visualization software package.

COE to benefit from software grant

It's what the compact disc is to the audio world. Or how the facsimile machine has speeded up information exchange in the business world.

In a similar manner, a new visualization software package will impact the world of computers and research at the College of Engineering like never before, thanks to a \$271,500 grant to the UH from Wavefront Technologies Inc., of Santa Barbara, California.

The software uses numerical data inputted into a computer to generate photorealistic, three-dimensional motion picture images. The images can then be manipulated to fit almost any situation and research project, which helps researchers better analyze and see trends and patterns within huge amounts of data.

The College of Engineering, the Institute for Astronomy, the Hawaii Institute of Geophysics and the UH Computer Center, were given a site license to use the software. Through the UHCC, all UH faculty and students will have access to the software.

The package includes Advanced Visualizers for high-end rendering and animation, Data Visualizers for multi-dimensional scientific visualization and a Video Composer for producing professional quality videos of computer-generated imagery.

For the engineering faculty, the visual imagery generated by the software means much more than just looking at a pretty picture. One faculty member who hopes to make extensive use of the software is civil engineering

(see *COE faculty* page 9)

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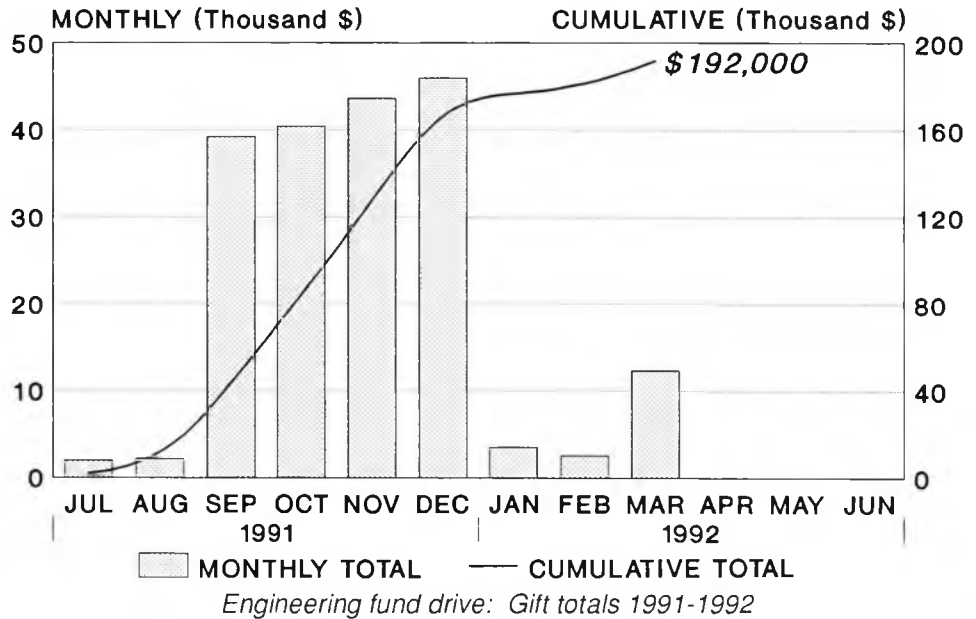
It's up, up and away for College fund drive

The College of Engineering 1991-1992 fund drive continues to post record earnings over the first seven months, according to COE director of development Sheryl Nojima.

At last report, October 1991 figures stood at \$70,000. By the end of March 1992, total gifts (individual gifts less than \$10,000 only), jumped to \$192,000. The figure was up nearly 33 percent from the previous March, Nojima said.

The faculty and staff at the College are extremely grateful and would like to recognize the following companies that donated a substantial amount (please see related stories):

- C.W. Associates (dba Geolabs-Hawaii Inc.)
- Richard M. Sato & Associates Inc.
- R.M. Towill Corp.
- SSFM Engineers Inc.



There is still time left for you or your organization to contribute to the College's fund drive if you have not yet done so. If you want to make a

difference by financially supporting the College or simply would like more information, please contact Nojima at 956-7426.

Kim leads by example at R.M. Towill Corporation

Donald Kim is no Leonard Bernstein. But then again, Kim may know more about conducting than he lets on.

Kim is president and chairman of the board of R.M. Towill Corporation, a position he compares to a symphony conductor. With Kim as the maestro, the company has made beautiful music to the tune of over \$20 million in annual professional fees, or about \$600 million in construction costs.



Donald Kim

"You have to be able to lead your people so that they believe in you and the company," he said. "When they share your vision and goals, the company will accomplish a lot."

For Kim, life at the top of the corporate ladder of the state's largest civil engineering firm is an exciting challenge. He oversees the company's organization, planning strategies and management. It's a job that involves great responsibility but Kim does not shy away from the challenge.

"When I get up in the morning I'm anxious to come to work," he said. "I don't remember having a day when I didn't want to come to work. I enjoy what I'm doing because every day is a new challenge."

Since its founding in 1930, the planning, civil engineering, surveying, photogrammetry and construction management company has grown to a staff of over 150 engineers and support staff.

The company also has an architectural and engineering office in Seoul, South Korea. R.M. Towill

Corp. has worked on multi-million dollar capital improvement and housing projects on Oahu, the neighbor islands, Japan, Guam, the Philippines, Korea and all over the Pacific Rim.

Kim attributes the company's success to four factors: a solid company mission, competent staff, hard work and good management. Of the four, Kim insisted that the cornerstone of a solid company is good management.

"Good management means simply looking out for your people as if they were your own family," he said. "It means creating a good working environment and providing the best benefits and compensations possible to the employees, resulting in a loyal, harmonious and happy family."

"A lot of companies have the first three but lack good management which only causes a lot of heartache."

Kim, who was born in Korea, came to Hawaii in 1952. He graduated from the University of Hawaii in 1958 with a bachelor's degree in civil engineering. He joined

(see *Every day* page 4)

Sato takes company to new heights

Richard M. Sato leans back in his black swivel chair, elbows on the armrest. He is wearing a black baseball jacket over an aloha shirt.

The bluish walls of his air-conditioned office are bare save for a calendar given to him by a Japanese client. At the moment he is in the middle of an interview.

"How much did your company gross last year?" asks a curious reporter.

Sato momentarily rubs his chin, grins and then laughs a boisterous, contagious laugh. He chuckles, "I can't tell you that. It's top military secret."

Secret or not, Sato has good reason to be happy these days. His company, Richard M. Sato & Associates, is one of the more successful civil engineering firms in the state. The company currently has 53 employees and a branch office on Maui.

The company was founded in 1969 as a sole proprietorship. Initially, growth was a slow process for the fledgling company but through perseverance, hard work and a loyal staff, the company has grown to a viable, multi-disciplined, employee-owned firm.

Today, Richard M. Sato does civil and structural engineering work plus project and construction management for such clients as the federal, state and county governments as well as for numerous businesses in the private sector.

Early in the company's history, Sato discovered that furnishing a pleasant working environment is a great fertilizer for growth.

"We have a motivated staff who work hard. In return, we have created a good office environment and provided job security for our people," he said.

Success certainly hasn't spoiled this 1956 UH civil engineering alumnus. To this day, Sato remains a staunch supporter of the University.

"It's the only source of engineering education in our state for our young

people," he said. "You can go to business school at Chaminade, HPU or Hawaii Loa but you can only go to one place to get an engineering degree. That's why we have to support the College."

And he has the muscle to back it up. The company donated a substantial sum to the College's fund drive, an amount which he said is also classified material. He is also this year's corporate committee chairman for the fund drive.

Sato has done an excellent job as corporate chairman, according to Sheryl Nojima, the College's director of development.

In particular, Nojima said he has expanded the number of committee members to 25 and has been in-



Richard M. Sato

strumental in getting neighbor island engineers to participate in the fund drive.

(see *Sato* page 4)

Hard work breeds success at SSFM

A lot of hard work and a little bit of luck will take you a long way. Roy Shimabukuro, president of SSFM Engineers Inc., ought to know.

Hard work has been the hallmark of the structural, civil and corrosion engineering firm since its founding in 1961. It has been the driving force behind the company's growth from four employees 30 years ago to nearly 40 today.

"We've always worked hard and tried to maintain the quality of our work to satisfy our clientele," Shimabukuro said. "If you don't do quality work you won't be around for too long."

A few of SSFM's current projects are the corrosion protection work on Aloha Stadium, additions to the Queen's Medical Center, the expansion of Keahole Airport on the Big Island and the design of the proposed UH School of Hawaiian, Asian and Pacific Studies. One of the company's more recent projects was the U.S. Army Reserve Training Center at Fort Shafter, which is now under construction. The architectural firm of Johnson Tsushima Luersen Lowrey Inc., worked with SSFM on the \$22 million project.

"During that time, both (companies) were busy with other projects but they (SSFM) were still very timely," said Bob Tsushima, one of the architectural firm's principals. "Overall, we've been very satisfied with the quality of their work."

Another reason Tsushima is content with SSFM is the ready access to the company's principals. He is not "stuck working with the regular staff" like with other companies, he said.

SSFM has also been a quality supporter of the College of Engineering over the years. The company donated \$5,000 to this year's fund drive, one of the larger amounts given.

Shimabukuro has been instrumental in generating outside support for the College. A 1952 University of Hawaii alumnus, he was chairman of the College's 1990-91 corporate fund drive that generated \$141,000. He is also a corporate committee member of this year's fund drive.

However, things weren't always this peachy-keen. There was a time not too long ago when several of his colleagues expressed dissatisfaction

(see *SSFM's* page 4)

Every day a new challenge for Kim

(continued from page 2)

the company back in 1957 as a junior engineer-draftsman, worked his way up and was named to the top position in 1978.

Kim is proud of the university and financially supports the College because that's where it all began for him.

"UH gave me a good engineering foundation and training so in a way, I'm trying to pay back the school for what they gave me. I owe where I am today to the UH," he said.

R.M. Towill Corp. donated a total of \$19,000 to the College's current fund drive, \$5,000 of which was a cor-

porate gift and \$14,000 from employees. The company's generosity, however, does not end with the fund drive.

The company has provided two scholarships for engineering students -- the Richard M. Towill and the Roswell & Jeanie Towill scholarships. Kim also serves on the Board of the UH Foundation and is an active member of the UH Alumni Association.

"All of this put together shows a tremendous commitment from Don Kim and the company to not only the College but the university as well," said Reginald Young, interim dean. "We're grateful for their support through the years."

Overall, Kim is proud of his company's standing of being one of the 500 largest design firms in the nation.

"We're a very progressive company," Kim said. "Our goal is to continue to be the leader and on the leading edge of the profession."

"We're always on the lookout for new ways to improve our profession and are committed to do our part in our community in whatever way it takes."

Sato a staunch supporter of College

(continued from page 3)

"He's a rare breed in that he has a good business sense and vision for the company," Nojima said. "That's the reason why the company is the success that it is today."

Richard M. Sato has a good mixture of experienced and younger engineers, whom Sato is banking on for direction and goals. As for the future, one of the company's strategies may be to venture out into the Pacific basin.

"We have a lot of young people so hopefully we can continue to grow," he said.

His willingness to help younger engineers in their careers can be seen in the number of interns whom the

company hires each summer. There are at least two or three summer interns, depending on the amount of work available, he said.

Sato takes a relaxed, yet confident approach towards his work. And laughter has indeed proved to be a good medicine for stress.

"You have to enjoy what you're doing or else it'll be very difficult for you," he said. "We're in a difficult business and there's a lot of stress involved. So you want to make the work as pleasant as possible."

"But we're all very happy and satisfied in terms of where we were back then to what we are today. We all have that sense of accomplishment."

SSFM's Shimabukuro builds company through hard work

(continued from page 3)

with the number and quality of engineers graduating from the university. Concerned and perhaps a little disappointed, he decided that SSFM ought to take action.

"We wanted to help the College enhance their curriculum and produce top-notch engineers," he said. "We decided that criticism alone was the wrong approach."

"Since all five of our principals were graduates of the university, we responded with positive action when (Interim Dean) Reggie Young made some pleas for help."

Shimabukuro has since then noticed an improvement in the quality of the school and its graduates. But he said it may yet be too early to tell.

"Maybe a few years from now we can proudly boast about the quality of education the College is offering," he said. "Dean Young has provided the students with a lot of resources to work with and I can see that the potential for producing outstanding engineers is there."

Although the company enjoyed a successful 1991, Shimabukuro predicted a slowdown within the next year or so due to the recession.

To counter the decline, SSFM managed to land contracts for two hotel projects in Saipan. The company is also designing a First Hawaiian Bank branch in Guam.

"We're looking to pick up overseas projects because of the paucity of the economy here," he said. "So far the



Roy Shimabukuro

recession has not really hit us hard. We're still going strong.

"I think someone's looking out for us because we've been very lucky."

Engineers enjoy successful Career night

When opportunity knocks, you'd best answer.

More than 150 engineering students answered that call at the College of Engineering's 1992 Career Night. They were able to meet and chat with representatives from approximately 21 civil, electrical and mechanical engineering companies and government agencies who were present at the event.

Companies on hand included Boeing, GTE Hawaiian Tel, Belt Collins, Kiewit Pacific, Pearl Harbor Naval Shipyard, Hawaiian Electric and others. The representatives acquainted their organizations to the audience using slide presentations, brochures and exhibits.

Senior CE student and peer counselor Jadine Matsuda said the event was a chance for the students to meet

one-on-one with professional engineers.

"From an engineering point of view, we wanted to give our junior and senior students exposure to and make contacts with the profession," she said. "It was basically a chance for them to talk with professional engineers (and) find out what's expected of them."

(see *Career* page 8)

Endowment enhances geotechnical engineering program

(continued from page 1)

techniques and ultimately improve applications of our knowledge."

In giving the amount, Wong becomes the College's first member of the University of Hawaii's Founder's Club. There are only 50 members who belong to this elite group of UH supporters. Wong, however, believes that the honor is not all that important.

"We really don't think about those things when we contribute," he said. "I personally don't feel anything special or deserve to be recognized. For us, life basically continues because we're relatively busy."

CE department chairman Harold Hamada said that the number of students who have decided to study geotechnical engineering has increased, due to the recent hiring of two new faculty members and an increase in the number of course offerings. And things can only get better with the endowment, he said.

"It will help us to promote geotechnical engineering within the College," Hamada said. "On behalf of the College, I'd like to thank (Geolabs) for the generous gift."

A third faculty member may be hired "within the next five years" in addition to the two new professors, Hamada said.

CE assistant professor Scott Anderson is one of those new professors. He said the endowment has "furthered the visibility of the program within the department and the College."

"It's a significant gift that will build the program in the direction which we wanted to but didn't have the means to do so and I hope it will generate further interest from other consulting firms and the community at large."

In the long-run, Geolabs' Wong believes that the endowment will help train the next generation of geotechnical engineers. If not, local consultants will be forced to rely on outside people to do the job, he said.

"It shouldn't be that way. Hawaii has a lot of talented and intelligent students but we need to get them interested in this specialty. We need to back it up with sound investment in terms of equipment, good faculty members and a sense of excitement within the department," he said.

The previous California corporation of Geolabs-Hawaii Inc., was first established in 1968. Wong has been associated with the firm since 1973. Geolabs-Hawaii is a geotechnical consulting firm with integrated capabilities for engineering analysis and consultation, drilling support, laboratory testing, and geophysical exploration capabilities and equipment. The mission of the 53-employee company is customer satisfaction.

"We're very conscientious and innovative about getting things done on time and in the most cost-effective way. We try to give our clients more from our service than just the fee they pay," he said.

Geolabs-Hawaii was recently recognized by the Consulting Engineers Council of Hawaii and by the



Bob Y.K. Wong

City and County of Honolulu Mayor Frank Fasi for their excellent work on the Makiki Sewer Tunnel, Increment 2. The company was commended for their timeliness and geotechnical and tunnel consulting work for this difficult project through the congested neighborhood along Wilder Avenue of the Lunalilo Freeway crossing to Cartwright Baseball Park.

Wong said the company will expand its operations into such Pacific and Asian countries as Saipan, Guam, Singapore, Hong Kong and Taiwan. Many of the company's engineers are from these countries.

"Our employees who were born and have lived there have a certain amount of roots and networking," said Wong, who was born in Hong Kong and moved to the U.S. at age 17. "Being familiar with customs and traditions, and the tropical and volcanic conditions similar to that of Hawaii will hopefully make our entry into those markets a little easier," he said.

Young engineers display creativity



First place team members (l to r) Shiota, Jaramilla and Hayashi with their Disk Insertion System project. The project is designed for hands free operation, minimal mechanical noise and the loading/reloading of 3.5 inch floppy diskettes.



The second place project (above) was the Shave Ice Maker, shown here by designers (l to r) Matthews, Copson and Yuan. The hand-held, electric-powered device produces high-quality shaved ice quickly and safely.

Team members Fukami, Iwane, Len and Moritomo (left) display the third place project, the Handy-Access Storage System. The device, which is operable by toggling an up/down switch, allows users safe and easy access of items from upper shelves.

(Opposite page top right) Choi, Hua and Cai with their Shoulder Joints Exercise Device Project.

(Opposite page middle right) Lum, Shoda and Pilla with their Taffy Cooling Table Project.

(Opposite page bottom Right) Chomko, Dalmacio and Pitman show off their project, Arnold III: The Chair & Coupling Systems to OTTED's Keith Matsunaga (far left).

at ME 482 class design competition

Each semester, ME 482 students hold a design project competition using concepts and theories learned in previous engineering courses. Projects from the Fall 1991 semester more than lived up to expectations.

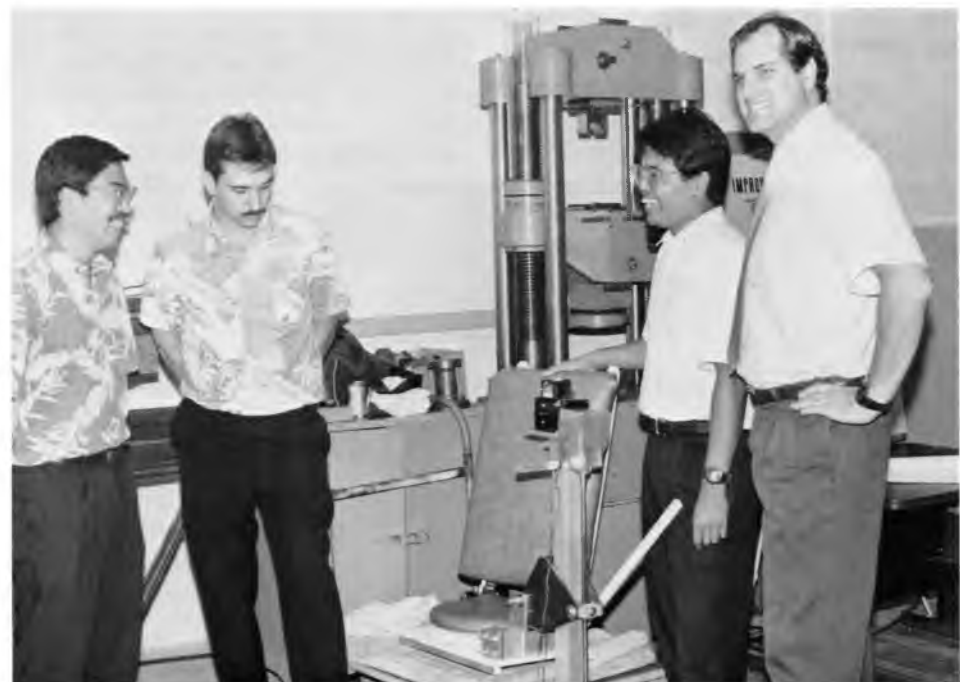
ME professor Ronald H. Knapp described the past semester's students as "an excellent class."

"Motivation was very high among the students," he said. "They were intelligent and had creative ideas."

The contest was sponsored by Mrs. Frances Rhodes Montgomery, in memory of her husband, a former Hawaiian Electric Company vice president. First place went to the Disk Insertion System project, which was designed by Kevin Shiota, Ferdinand Jaramilla and Keith Hayashi. Second place went to the Shave Ice Maker, designed by Oliver Matthews III, David Copson and Ma-Ying Yuan. In third place was the Handy-Access Storage System project with team members Peter Len, Kristi Fukami, Andrew Iwane and Teri Moritomo.

Other projects were: the Shoulder Joint Exercise Device by Byungsun Choi, Ying Cai and Rong Hua. Lightweight and compact, it meets the therapeutic needs of a quadrupel. The Taffy Cooling Table by Melissa Pilla, Alan Shoda and Wesley Lum cools taffy uniformly using a low-cost and easy assembly table. And Arnold II: The Chair & Coupling Systems by Steven Chomko, Jeffrey Pitman and Reynaldo Dalmacio is a patient transfer device with a fully reclining back rest and a 250-lb. load capacity.

Many companies and individuals helped to make the semester a success. They are: Dr. Ko Miyataki, Virginia Tully, Naomi Wada and Kendra Hatae from the Rehabilitation Center of the Pacific; Keith Matsunaga from the Office of Technology Transfer & Economic Development; Edward Hurst and Renee Lettiere from Anter Laboratories; Universal Sheet Metal; Pacific Allied Products; Dr. Richard Radke; Charles Cavedoni; Wendell Lum; and Ben Respicio, scientific instrument technician, and Brian Kodama, machinist, of the Engineering shop for their help in manufacturing the design prototypes, Knapp said.



Jobs available despite recession, says ceremony speaker

Today's college graduates face a tight job market due to the recession but bright and energetic engineers will still be in demand, said Norman Kawachika, commencement speaker at the College's Fall 1991 recognition ceremony.

Kawachika, a UH alumnus and senior project manager with M & E Pacific Inc., addressed the 101 graduating students and their families and friends. Some 66 students were awarded bachelor's degrees, 30 received master's and 5 with doctorates.

Kawachika said employers are still shopping for people with new and innovative ideas. These, he believes, can be UH engineering graduates.

"Employers are looking for people who can take them successfully into

the future," he said. "To be one of these people, you must believe in your ability and project a "can-do" attitude.

Kawachika identified two other attributes that characterize the successful engineer. They are adaptability, being able to adapt to constant technological changes, and pro-activity, which means taking the initiative to change your surroundings and make it suit your needs.

Kawachika believes that the economy is in a staging area waiting to be rocketed to new heights as technological advances are applied.

"The state of the economy is really an opportunity in disguise," he said. "Many companies have restructured their workforce and goals to meet the changing demands of consumers. If you take the responsibility to act, I am

sure you will find an important part to play."

Kawachika ended by congratulating the graduates and wishing them the best in their careers.

"Congratulations on a job well done," he said. "You have given your parents the most meaningful Christmas gift ever."

The Engineering Alumni Association, represented by Glenn Yee, urged graduates to get involved in alumni activities. Yee said joining the association helps graduates keep abreast of classmates. The association can also help with employment opportunities and career advice, Yee said.

After ceremony refreshments, provided by the alumni association, allowed for the exchange of more congratulations and "small-kine" talk.

Career Night a hit with students and companies

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Matsuda served on the committee that planned and organized the event, which was held at the University of Hawaii Campus Center. This year, the College's three engineering departments combined their resources to hold the event.

One company representative, Paul Fukunaga of Thermal Engineering Corp., liked the idea of having a Career Night.

"I think it's a good idea because when I was in school, I didn't know much about what (opportunities) were

out there," said Fukunaga, who also is a 1973 UH alumnus. "For us, it was an opportunity to let students know what we're all about."

Fukunaga said no positions are currently open at the company but that there are openings for design and mechanical engineers from "time to time."

Boeing senior personnel manager Dan Robinson said he wants to let students know that the company is still actively recruiting new college graduates, despite the recession. He also was impressed with the quality of graduates from the College.

"We've had several (engineers) from UH and they've done very well for us. UH has a very good caliber education and we've been very pleased with the job they've done for us," he said.

Students also found the event to

be worthwhile. Denise Dang, a senior civil engineering student, attended the event to find out more about job opportunities. Dang found she was at the right place and time.

"I thought it was really informative because there were a variety of companies present and I was able to personally meet some of their people," she said.

A second student, senior electrical engineering major Gail Miyamoto said, "I gained a knowledge of some other companies that hire electrical engineering majors besides Hawaiian Electric and Hawaiian Tel."

Miyamoto said that attending the Career Night will give her an advantage over those who did not attend because of the "inside information" she learned about the various companies.

Overall, peer counselor and committee member Matsuda was surprised at the large response of the students and said that there may be a sequel to Career Night.

"We may have another one next year," she said. "With the response we had this year, the chances for (another one) next year are good."



Boeing's Dan Robinson answers student's questions.

Scholarships available (part II)

This is the second of a two-part series on scholarships available each year for undergraduate and graduate students. In many cases, students who apply for scholarships must demonstrate financial need. Once again, the College expresses its deepest appreciation to the many generous people and organizations for their contributions. Available scholarships include:

The Harold J. Heide Scholarship in Mechanical Engineering of \$3,000 is given to incoming freshmen who have graduated from a Hawaii public high school and have declared a major. Mr. Heide was the former president of Heide & Cook Ltd., a mechanical contracting firm.

The \$500 Sam and Yukino Hirota Scholarship is given each academic year to undergraduate civil engineering students who are interested in surveying courses. Mr. Hirota was president of his own engineering firm for over 25 years.

Students who have been engineering majors for at least three semesters may apply for the \$750 Wilfred J. Holmes Memorial Scholarship, in honor of the former dean of the College who retired in 1965. Applicants must also have at least a 3.0 GPA and be involved in university or community extracurricular activities.

CE students in good standing may apply for the Ralph B. Hubbard Jr., Scholarship. The amount awarded is determined each year. Mr. Hubbard was a former associate professor of civil engineering at the College.

The Robert Edwin Hughes Award is for seniors with academic excellence and who have been involved in extracurricular service at the UH. Mr. Hughes, a pioneer in sugar engineering, dedicated his life to improving engineering and the community.

The Kiewit Pacific Company Scholarship of \$1,000 per academic year is given to a junior or senior CE student who has expressed an interest in construction engineering or construction management.

The Frederick M. Kresser-ARCS Award of \$1,000 per academic year is

given to the student with the highest GPA at the end of his/her fifth semester or more and will be continuing at UHM. The scholarship is in memory of Mr. Kresser who was former president and chief executive officer of Pacific Construction Ltd.

The Patrick L. MacDonald Memorial Scholarship of \$1,000 per academic year is given to undergraduates with a minimum 3.0 GPA, with preference given to graduates of Kailua High School.

Female CE students may apply for the National Association of Women in Construction, Hawaii Chapter Scholarship of \$500 each academic year. Applicants must have a desire to work in the construction industry.

An amount of \$750 for the Society of American Military Engineers, Honolulu Post, will be given to undergraduate students with one or two years before graduation.

The Richard M. Towill Scholarship was started to attract high school students to study civil engineering and

pursue graduate degrees. Mr. Towill is the son of the late Roswell M. Towill, a pioneering engineer in Hawaii and the Pacific. The amount awarded equals one year's tuition.

The Roswell & Jeanie Towill Scholarship is in honor of the late founder of R.M. Towill Corporation, who did much to open the field of engineering to all of Hawaii's young people. His wife Jeanie was an active volunteer and participant in community affairs. The scholarship is for undergraduates with a 3.5 minimum GPA and for CE graduate students who show professional promise. Undergraduates receive \$1,000 and graduates \$1,500.

The J. Watumull Merit Scholarship of \$500 per semester is awarded to students who have demonstrated outstanding scholastic achievement and have at least two semesters before graduation. The scholarship is in honor of the late Jhamandas Watumull, president of Watumull Bros. Ltd., a large chain of retail clothing and gift stores.

COE faculty excited over new software

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assistant professor Amr Oloufa.

Pending approval from the state Department of Transportation, Oloufa hopes to do an exhaustive visualization study of Honolulu International Airport. One possible use is to see how the new interisland terminal currently under construction will mesh into the surrounding environment. Other possible areas of study are airport safety and security.

"The software can be used to see how the airport will look from the pilot's point of view and even from the control tower," he said. "It's also particularly effective if you want to have better control over the growth and planning of the airport."

Junku Yuh, mechanical engineering associate professor, is another faculty member who is looking forward to using the software for the design of a control system for an autonomous underwater vehicle (AUV). The goal of his project is to replace human

operators with an intelligent device to work in the hostile environment of the deep ocean.

In a sense, the software allows Yuh to put virtual cameras underwater where it is difficult to observe motion, making life much easier for him and his research assistants.

Using data from the Pacific Mapping Center, Yuh plans to create a graphical 3-D model of the ocean floor and then introduce a visual representation of an AUV. The vehicle's movement and responsiveness under certain conditions will be put to the test.

"A graphical representation is a more valuable tool instead of looking only at numbers to visualize the motion of the vehicle," he said. "It will allow us to have a better understanding of its motion and performance."

"I'm excited about it. All we have to do now is sit in the lab, do the work and push our graduate students."

Faculty Highlights

Dr. Arthur Chiu, professor of civil engineering, and **Dr. N. Thomas Gaarder**, professor of electrical engineering, were honored by the University of Hawaii Mortar Board as two of the school's 23 most inspirational professors. Both Dr. Chiu and Dr. Gaarder were recognized for giving of their time and efforts to guide their students' career goals and lives. The Mortar Board is a community service oriented, National Honor Society for college seniors.

Dr. Lloyd Hihara, assistant professor of mechanical engineering, completed the 10-week New Faculty Teaching Enhancement Seminar, Fall 1991. For completing the seminar, Dr. Hihara received a curriculum development grant that will enable the purchase of supplies, books and instructional materials to improve the teaching of two of his courses: ME 372 Component Design and ME 434 Materials Selection for Design ME 434.

Dr. James Holm-Kennedy, professor of electrical engineering, was awarded a grant from the UH Office of Technology Transfer and Economic Development (OTTED). His project is "Chip-Integrated Optical Spectrometers and Selective Wavelength Imaging Arrays Development."

Dr. Shu Lin, electrical engineering department chairman, received a grant from the Pacific International Center for High Technology Research for his project "Autonomous Underwater Vehicle for Deep-Sea Borehole Reentry." **Dr. David Yun**, professor of electrical engineering, is principal investigator with Dr. Lin. The project's goals are to develop state-of-the-art autonomous underwater vehicles and technologies to facilitate automatic reentry of deep-sea boreholes so that new exploratory, experimental tools may be deployed. Dr. Lin has also received continued funding from the National Science Foundation for his project entitled "Some Problems in Coding, Coded Modulation, Suboptimum Decoding and Trellis Structure."

Dr. Clark K. Liu, professor of civil engineering, was awarded a grant

from the National Science Foundation for his on-going research project entitled "Development and Testing of a Wave-Driven Artificial Upwelling Device." The project involves the design, fabrication and testing of a wave-driven artificial upwelling device that can draw nutrient-rich deep ocean water to the ocean surface as a precursor to commercially-viable, open-ocean mariculture. This project is part of a larger research effort of the University of Hawaii, which is the development of advanced technology for open ocean mariculture.

Dr. Peter G. Nicholson, assistant professor of civil engineering, has recently been installed as the Geotechnical Committee chairman for the Hawaii section of the American Society of Civil Engineering (ASCE). This committee will be co-hosting the 17th Southwest Geotechnical Workshop in April 1992 with the Department of Civil Engineering and the Hawaii Department of Transportation. He is a member of the organizing and technical review committees for presentations to be made at the conference. Dr. Nicholson also received a grant from Fewell Geotechnical Engineering, Ltd. for his project "An Investigation of the Enhancement to Engineering Properties of Marginal Hawaiian Soils with Lime Admixture."

Dr. C.S. Papacostas, professor of civil engineering, spoke at an Environmental Conference sponsored by the Pacific Command of the U.S. Army, February 25-27, 1992 in Honolulu. His topic was on the application of GIS technology to environmental planning. The conference was attended by environmental planners from the Pacific region, including Hawaii, Alaska, Korea and Japan. Dr. Papacostas also represented the Hawaii Section of the American Society of Civil Engineers (ASCE) at the annual Pacific Southwest Council Conference held in Nevada from February 28-30, 1992. He is also currently providing expert advice to the Honolulu Public Transit Authority and the Leeward Oahu Transportation Management Association (LOTMA) on the evaluation of express bus services on Oahu.

Dr. Panos Prevedouros, assistant professor of civil engineering, presented three papers at the Annual Meeting of the Transportation Research Board (a division of the National Research Council), on January 12-16, 1992 in Washington, D.C. The papers were entitled "Factors Affecting Automobile Ownership and Use"; "Effects of Personality and Occupational Status on Automobile Ownership"; and "Trip Generation: Different Rates for Different Densities." The first of the three papers was selected as one of the six best papers in 1991 in Transportation Planning Methods Applications.

Dr. Kenneth Zeger, assistant professor of electrical engineering, has received continued support via a research grant from Hewlett Packard Labs for his research project entitled "Efficient Techniques for High Quality Image Compression."

Dr. Reginald F.H. Young, Interim Dean of the College of Engineering, has received a non-research award from the Environmental Protection Agency. The award was entitled "Fellowship Agreement for Linda Gale Bauer."

New Faculty



The College of Engineering welcomes **Dr. Mohammed Naghi Mehrdad Ghasemi Mejhadd**, assistant professor of mechanical engineering, to the faculty. He holds a Ph.D. and M.S. in mechanical engineering from the University of Delaware. His dissertation was entitled "Three-Dimensional Thermal and Residual Stress Analysis of In-Situ Thermoplastic Matrix Composite Filament Winding." He joins the College of Engineering after working in Delaware for the E.I. Du Pont de Nemours & Co., where he was on a Du Pont Fellowship.

Engineering Alumni News

Owen Miyamoto (CE 50) is the Airports Administrator for the Hawaii state Department of Transportation. He lives in Honolulu.

Stanley T. Fujimoto (CE 52) is a project manager at BCI General Contractors. He resides in Honolulu.

George T. Kodani (CE 57) the Assistant District Engineer for the state Department of Transportation, Highways Division. He resides in Hilo.

James Kumagai (CE 62) is vice president at M & E Pacific. He lives in Pearl City.

Franklin Y.S. Lum (ME 64) is president of Ferris & Hamig Hawaii Inc. He makes his home in Kaneohe.

Andres Albano Jr. (EE 65) was recently named 1992 president of the Development Association of Hawaii, an organization whose members include the largest active real estate developers in the state. In addition to being a licensed professional engineer and a registered realtor, he is chief executive officer of Albano & Associates, Inc., and Homes West, two companies engaged in real estate development, consulting and brokerage. Mr. Albano also holds an M.B.A. degree from the University of Hawaii. He lives in Honolulu.

Allan T. Isobe (ME 69) is a supervisory nuclear engineer in charge of administration, recruitment and training at Pearl Harbor Naval Shipyard. He is married and has three children and three stepchildren. He lists Japanese landscaping and house remodeling as his hobbies. He resides in Waipahu.

Daniel S. Miyasato (CE 69) is vice president at Richard M. Sato & Associates Inc. He makes his home in Waipahu.

Lance K. Toyofuku (CE 73) is the Deputy Director of Engineering & Housing for the U.S. Army. He is stationed in Seoul, South Korea.

Russell Young (CE 73) is senior vice president at Albert C. Kobayashi Inc., General Contractors. He is married and has an eight-year-old boy and a five-year-old girl. He resides in Honolulu.

Leighton W.K. Lum (CE 74) is chief environmental engineer at R.M. Towill Corp. He makes his home in Aiea.

Ranold I. Fujioka, Jr. (CE 78) is a supervisory environmental engineer for the Navy Public Works Center. He lives in Honolulu.

Carol Minami (CE 78) is Administrator of West Area Pricing at GTE Hawaiian Tel. She lives in Honolulu.

Craig S. Miyachi (CE 79) is a facilities engineer for the Department of the Navy at Pearl Harbor Naval Shipyard. He resides in Aiea.

Laverne Higa (CE 79) is a Civil Engineer V with the City & County of Honolulu. She resides in Honolulu.

Sheryl (Nojima) Endo (CE 80) completed her MBA at the University of Hawaii. She is currently the director of development at the College of Engineering. Nojima won the Outstanding MBA in International Business Award which will be presented to her at Business Night 1992 at the Sheraton Waikiki Hotel in April. She lives in Honolulu with her husband and daughter.

Jennifer (Sales) Campbell (CE 80) works at Hickam Air Force Base as a supervisory general engineer for the 15th Civil Engineering Squadron. She received her professional CE

license in 1989. She resides in Honolulu.

JoAnne M. Nakamura (CE 81) is an engineer at Engineers Surveyors Hawaii Inc. She makes her home in Honolulu.

Lawrence Ornellas (EE 81) is an electrical maintenance engineer at Hawaiian Electric Co. He lives in Waipahu.

Ayman S.A. El-Swaify (ME 84) is a supervisory computer engineer at the Navy Public Works Center. He was recently selected as the 1992 Engineer of the Year for the Pacific Division of the Naval Facilities Engineering Command, under age 36 category. He makes his home in Honolulu.

Andy Ragasa (CE 84) is a project engineer at Koga Engineering & Construction Inc. He lives in Aiea.

Lynn K. Tamashiro (ME 85) is an engineer at GTE Hawaiian Tel, Land & Buildings Dept. She makes her home in Mililani.

Michael E. Shine (CE 88) is a transportation engineer with the Washington State Department of Transportation. He has received a full fellowship to get his M.S. from the University of Washington, where he will be studying transportation planning and traffic engineering. He resides in Seattle, Washington.

Class of 1934 holds 58th anniversary reunion

By Walter T. Matsumoto

The UH Engineering Class of 1934 enjoyed its 58th anniversary reunion at a luncheon at Suehiro Restaurant on January 29, 1992. In attendance were 6 members of the graduating class of 12. They were: Kenji Aihara, Lucius F. Jenkins, Gilbert D. Kobatake, Walter T. Matsumoto, Francis T. Suzuki and Walter C. Wong.

Five members have passed away: Yoshihiko F. Tsumoto, Lorenzo C. Fruto, Peter H. Sakai, Wing Chung Hu and Kunji Omori. George

R. Frazier returned to the Mainland after graduating and we have lost contact with him.

The members are now 79 or 80 years old. Most of us do not drive at night and wear hearing aids. Except for Kobatake, who is semi-retired, the others are fully-retired. At the luncheon, the topic of conversation was no longer on engineering, but health matters such as heart bypass surgery, arthritis, prostate glands, pains here and there, etc. It seems like no one is immune from health problems.

ENGINEERING ALUMNI UPDATE

Name _____
Address _____
Phone: Business () _____ Home () _____ (City) (State) (Zip Code)
Employer/Company _____
Job Title/Description _____
Year Graduated (BS) _____ Major (CE, EE, ME?) _____ Graduate Degrees _____
News about children, marriages, promotions, hobbies, travels, etc.

PLEASE SHARE WHAT YOU ARE DOING WITH YOUR CLASSMATES. SEND IN YOUR NEWS TO: Newsletter Editor, College of Engineering, 2540 Dole St., Holmes Hall 240, Honolulu, Hawaii 96822.

Engineering Alumni Association Officers

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Director Glenn Yee	NEEACT PAC, Box 130, Pearl Harbor 96860-5170	471-8237
UHAA Rep. William Bow	Savio Development, 931 University Ave. Suite 206, Honolulu, 96826	943-6400

If you would like to join the Association or pay your 1992 dues, please fill in the form above and mail in \$10. Alternatively, send \$35 to become a member of the University of Hawaii Alumni Association. \$10 of that \$35 will go to the Engineering Association for dual membership. Make your check payable to "Engineering Alumni Association" and mail it to P.O. Box 12204, Honolulu, Hawaii 96828.

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