University of Hawai‘i at Manoa
ENGINEERING CLINIC PROGRAM

Advancing Technology Through Innovation in Engineering Education

Education and Industry in Partnership
We are proud to announce the establishment of the Engineering Clinic Program in the College of Engineering at the University of Hawai‘i at Manoa.

This program places senior engineering students in specially equipped University laboratories to tackle practical engineering design and software development problems of concern to individual corporate sponsors. The students in teams of 4 to 5 students work under faculty and corporate supervision.

All parties benefit from the arrangement: Companies invest in engineering’s future and in their own by gaining access to state-of-the-art research facilities, highly skilled faculty with research expertise in a wide variety of areas, and well-trained students. Students earn course credits, scholarships, and the opportunity to apply academic skills to real world engineering problems. Faculty make contacts with industry that potentially open new avenues of research, and the University benefits from an engineering curriculum substantially enriched by the realism of engineering practice.

The clinic represents a new initiative in the College of Engineering’s wide ranging efforts to promote linkages, collaboration and technology transfer with government and the corporate world. Such cooperation strengthens ties between the College—with its wealth of research and development talent—and local and national companies that have special needs to ensure their growth and competitive ability. Corporate sponsorship adds to the College’s capability of upgrading the laboratories and equipment necessary to properly prepare students for engineering careers while solving practical engineering problems.

A major goal of Dr. W.F. Chen, Dean of the College of Engineering, has been the nurturing of cooperation among the college and the leaders of industry. He says that a state or region’s economic development is impossible without excellent engineering schools.

Seniors in Engineering are regularly involved in University research and their findings frequently receive regional and national recognition.
**BENEFITS TO INDUSTRY**

✦ Each project has focused tasks and the outcome may include results of a feasibility study, software development, test and measurements, prototypes, research papers, and reports.

✦ Recruiting opportunities: During the course of the project, sponsors also get a close-up look at some of Hawai’i’s brightest engineering students as possible future engineers.

✦ Access to University laboratories and faculty expertise.

**REAL-WORLD PARTNERSHIP**

The problem-solving clinic atmosphere addresses the reality of the world’s rapidly changing technologies, which are widening the gap between academic engineering and engineering practice at an alarming rate. The symbiotic relationship that results between the industry sponsor and academia allows students to apply classroom theory to the practical world of engineering. It also simulates the pressures of performing under the time and money constraints common to professional engineering. Clinic projects place students in the kind of creative environment requiring them to function in teams and to prepare professional research proposals. As the research unfolds, they must identify critical features of an engineering problem and sharpen their skills in preparing presentations and writing technical reports of the status of their investigations.

**ENGINEERING CLINIC FEE**

Each engineering clinic project will charge a fee of $25,000 that goes directly into research, scholarships for participating students, and to cover costs of the project. Faculty supervise these projects as part of teaching duties at the University and do not receive pay from the program. Some of the funds will be used to upgrade undergraduate laboratories and pay for the students’ trips to conduct design reviews at the sponsoring companies.

*Higher Education in Engineering must remain in touch with industry to better prepare students to meet the real needs of employers.*
**STEPS IN SPONSORING A CLINIC PROJECT**

✦ Corporate sponsors identify a project of interest to the company. Projects that are of direct benefit to the company and could be completed at a comparatively low cost and within two academic semesters are encouraged.

✦ Upon discussing and accepting the project by the University, a team of 4 to 5 undergraduate students and a faculty advisor will be formed.

✦ The project team negotiate tasks, deliverables and time lines with the sponsoring company.

✦ The College charges a flat fee of $25,000 per project.

✦ Industry participate through meetings with the team and conducting design review sessions.

✦ All students participating in the Engineering Clinic Program make their final projects presentations in the College of Engineering Technical Open House held at the end of the spring semester. All industrial sponsors, families and college friends are invited to a banquet at the end of the Technical Open House.

**CONTACT INFORMATION**

For further information on the Engineering Clinic Program, please contact:

Magdy F. Iskander, Ph.D.
Director
Hawaii Center for Advanced Communications
College of Engineering
2540 Dole Street
483 Holmes Hall
Honolulu, HI 96822
Tel: (808) 956-3434
Fax: (808) 956-3507

Website: http://hcac.hawaii.edu

*By participating, companies invest in Engineering’s future, and in return gain access to highly skilled faculty, well-trained students and sophisticated research laboratories.*