ALBERT A. HOPEMAN, JR. SCHOOL OF SCIENCE, ENGINEERING AND MATHEMATICS

DEPARTMENT FACULTY

Mike Bright, Ph.D.
Professor of Computer Engineering

Alan Christman, Ph.D.
Professor of Electrical Engineering

Kuan-Lun Chu, Ph.D.
Associate Professor of Electrical Engineering

Tim Mohr, Ph.D.
Professor of Electrical Engineering

Lawrence Walker, D.Eng.
Assistant Professor of Computer Engineering

> "The faculty wants to see students succeed. The classroom is a comfortable place where no one is too afraid to ask questions, have discussions or crack a joke. Whether it's an engineering, science, math or humanities course, the faculty has always made itself accessible, genuinely seeking to mentor students for future success.
>
> – *Megan McCoy '15*

DEPARTMENT DESCRIPTION

Electrical and computer engineering is the analysis, design and application of devices and systems for conversion, processing and transmission of electrical energy and information. Electrical and computer engineering covers such topics as electric circuits, electronics, electrical machines, signal analysis and digital systems; as well as advanced topics in communication, computer and control systems. Electrical and computer engineers practice in a variety of fields including research, design and development, management, sales, field service, testing, manufacturing and education. Through hands on projects and coursework, students learn to define and solve electrical engineering problems using first-rate facilities and equipment.

MAJOR

Electrical Engineering

Students complete 98 hours of course requirements in addition to the College's core curriculum. Requirements are met over a four-year curriculum that begins with the fundamentals of science and engineering and culminates in a senior capstone design project.

Students may choose a concentration in electrical engineering (advanced lab work and hands-on experience in the use of electronic and electrical devices including transformers, motors and generators) or computer engineering (an in-depth study of advanced programming, operating systems, microprocessors and computer architecture).

MINOR

Robotics

The field of robotics is developing rapidly and Grove City is excited to be devoting important resources to the development of this discipline. Students complete 19-20 hours of course requirements, featuring hands-on learning experiences, practical design and programming courses and a capstone project for seniors. Students will have an opportunity to learn about the ethical side of robotics from a Christian perspective.

ACCREDITATION

The electrical engineering program at Grove City College is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

SPECIAL DEPARTMENTAL AREAS OF INTEREST

The department recently introduced a semester-in-France program. Students spend the fall of their senior year at the European Study Center in Nantes, France, where they take classes with French students from ONIRIS (the local university) in addition to online coursework from Grove City College. They participate in a variety of regional excursions and cultural experiences. Students start their senior project in conjunction with a professor or group from ONIRIS.

UNDERGRADUATE RESEARCH OPPORTUNITIES

Research opportunities are available for faculty-led research and independent student research. For example, Dr. Walker recently supported two students during summer research on hearing-aides, while Dr. Mohr supervised two students during summer research on the dynamics of wind turbine blades. Several students are currently conducting research on a supercomputer setup to support chemistry research.

INTERNSHIPS

In engineering, internships are equivalent to summer employment. All students participate in internships at least one summer, and most have several. Engineering companies recruit heavily for summer interns. In recent years, students have interned at dozens of different companies such as Westinghouse, Bechtel Plant Machinery, Intersystems, FirstEnergy, Qinetiq, Tektronix, Smith Micro, NASA, Reach Beyond, Toyota and many more.

CAREER AND GRADUATION OPPORTUNITIES

Employment opportunities are abundant for graduates. Many students receive offers from companies where they conducted summer internships. Most alumni pursue master's degrees, but mainly part-time in a company-paid program. For those who pursue full-time graduate school, Penn State, Carnegie Mellon University, Georgia Tech, University of Virginia, University of Massachusetts, Virginia Tech, M.I.T. and many others top their list of choices.
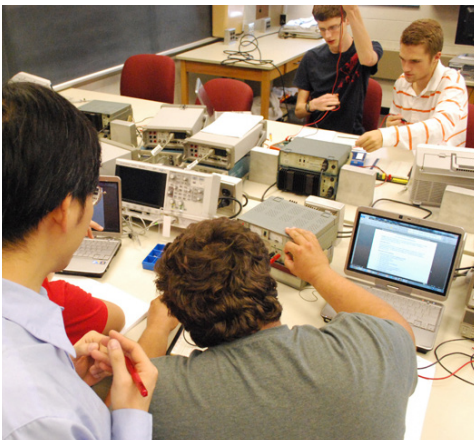
CONTACT

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