OUR MISSION

We educate and develop tomorrow’s leaders to solve the world’s biggest problems.

Our People

Our students receive an exceptional education through a strong technical foundation, refined communication skills, group project work and hands-on research opportunities. The demand for well-rounded electrical & computer engineers continues to grow each year. UW ECE is responding to this growth with the hiring of five new faculty in the 2015-2016 academic year. We are committed to merit-driven diversity to broaden participation in STEM, and exceed the national average of women in electrical engineering — with over 23 percent of our undergraduate degrees awarded to women compared to a national average of 12.5 percent.

Our Impact

One of our core strengths that differentiates us from our peers is our dedication to fostering an innovative ecosystem. By promoting an entrepreneurial mindset, we continue to cement our reputation as an innovation hub through partnerships with industry, government and regional sponsors. Our world class research takes an interdisciplinary approach to solving complex problems in energy, health, technology and the environment to help improve people’s lives.
LAUNCHING CAREERS

Our nationally-acclaimed curriculum provides solid grounding of the fundamentals of technical problem solving in the first year. This allows students maximum flexibility to choose their own concentrations in the second year based on their areas of interest.

AREAS OF IMPACT

ENERGY
ENVIRONMENT
HEALTHCARE

COMMUNICATION
GLOBAL HEALTH
SECURITY

COMPANIES HIRING EE GRADS

BOEING
MICROSOFT
GOOGLE
AMAZON
VERIZON
NATIONAL INSTRUMENTS
PUGET SOUND ENERGY

PERKINS COIE
UW MEDICINE
LOCKHEED MARTIN
APPLE
INTEL
PHILIPS MEDICAL
PNW NATIONAL LABORATORIES

DIVERSITY

UW ECE exceeds the national average of women in the field for undergraduate and graduate degrees awarded and in the number of women in tenured and tenure-track faculty positions.

Percentage of undergraduate degrees awarded to women
23.3% UW ECE AVG.
12.5% NATIONAL AVG.

Percentage of women tenured/tenure-track faculty
15.9% UW ECE AVG.
12.4% NATIONAL AVG.

FACULTY

52 CORE FACULTY
82 AFFILIATE FACULTY
36 ADJUNCT FACULTY

Our reputation is based on the quality of our faculty and their contributions to the education, research and leadership of the department. UW ECE faculty are frequently honored nationally and internationally for excellence in building a culture of collaboration, innovation and mentorship. The department continues to keep pace with the demand for top faculty with five new hires in the 2015-2016 academic year. As a result, attracting, retaining and rewarding faculty remains one of the highest priorities for our department.
ENTREPRENEURSHIP HUB

SUCCESSFUL STARTUPS FOUNDED AT UW EE:

Aquarium - Combines robotics, automation and programming to streamline molecular/microbiology experiments
SNUPI - Small, low power sensors for home monitoring systems
BluHaptics - Relays force, vibration and motion to control underwater robots
PotaVida - Utilizes sunlight and an electronic indicator to purify water

FOSTERING AN INNOVATION ECOSYSTEM:

EARLY EXPOSURE TO BUSINESS CONCEPTS
The ECE Entrepreneurial Capstone allows undergraduate students to engage with industry partners to achieve real-world impact in a three course sequence during their senior year.

STATE-OF-THE-ART FACILITIES
In addition to access to Makerspace to work with their hands and build prototypes, students also have the Washington Nanofabrication Facility, one of the largest public access fabrication centers in the Pacific NW right here on campus, led by ECE Professor, Karl Böhringer.

MENTORSHIP
As one of the leading startup hubs at UW, ECE faculty guide students on how to turn their ideas into companies. In addition, UW’s collaborative innovation hub, CoMotion, allows Presidential Innovation Fellows to serve as mentors to budding entrepreneurs across campus.

RESEARCH AREAS

Computing & Networking
Computer engineering and architecture
VLSI
Embedded systems
Wireless communication
Cybersecurity

Power & Energy Systems
Smart grid
Integration of renewable energy sources
Grid security
Power system economics
Energy harvesting

Robotics & Controls
Surgical and biorobotics
Smart Cities
Haptics
Network control systems

Photonics & Nano Devices
Nanoscale materials and structure
MEMS

Data Sciences
Machine learning
Statistical signal processing
Speech and natural language processing

Biosystems
Synthetic biology
Neural engineering
Medical devices
Mobile health

The ECE Entrepreneurial Capstone allows undergraduate students to engage with industry partners to achieve real-world impact in a three course sequence during their senior year.

IN 2016

3 NEW STARTUPS
22 PATENTS ISSUED
83 PATENT APPLICATIONS
45 REPORTED INNOVATIONS

#1 MOST INNOVATIVE PUBLIC UNIVERSITY (Reuters)

RESEARCH FUNDING

2016

66% GOVERNMENT (FEDERAL)
19% INDUSTRY (DOMESTIC)
13% NON-PROFITS/ INDIVIDUALS
1% GOVERNMENT (STATE)
1% GOVERNMENT (FOREIGN)

TOTAL: $18,975,000
Innovation at UW ECE is exemplified by our outstanding faculty and by the exceptional group of students they advise and mentor. We continue to build an ever-growing, collaborative innovation ecosystem and provide opportunities for students to gain valuable real-world experiences.

RADHA POOVENDRAN, PROFESSOR AND CHAIR