



# SNAPSHOT

DEPARTMENT OF

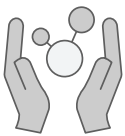
## ELECTRICAL AND COMPUTER ENGINEERING

2022 v2

### TOP THINGS TO KNOW



**Our faculty, staff and students work collaboratively to address some of society's most complex technological challenges**, and we are globally known for our innovative research advances. Our diverse faculty—more than 23% of whom are women—are leaders or affiliates of nine research centers and institutes at UW-Madison. Their innovations make an impact in areas ranging from energy sustainability and advanced materials and design to machine learning in healthcare. And in the past five years alone, ECE faculty have received 142 patents and disclosed nearly 200 inventions.



**Students at every stage of their educational career benefit from engaging classroom experiences** with exceptional instructors; state-of-the-art instructional, lab and design spaces; and opportunities to conduct research. Our faculty members have earned nearly

30 prestigious honors for their teaching excellence—among them, seven Chancellor's Distinguished Teaching Awards and four national/international teaching recognitions from IEEE and the Electrical and Computer Engineering Department Heads Association.



**As the largest department in the College of Engineering, we have grown an alumni base of over 12,000 ECE Badgers.** Whether overseeing Qualcomm's technical roadmaps for wireless chipsets, creating new technologies that enables deaf and hard-of-hearing people to communicate, serving as the first woman president of the IEEE Engineering in Medicine and Biology Society, or leading as CEO of Rockwell Automation, our alumni have made extraordinary contributions to the lives of people throughout the world.

#### STUDENT ENROLLMENT

998

UNDERGRADUATE

349

GRADUATE

#### DEGREES CONFERRED

203

UNDERGRADUATE

117

GRADUATE

#### NATIONAL PUBLIC RANKING

according to U.S. News & World Report

Electrical Engineering

10<sup>th</sup>

UNDERGRADUATE

9<sup>th</sup>

GRADUATE

Computer Engineering

7<sup>th</sup>

UNDERGRADUATE

8<sup>th</sup>

GRADUATE

## DEGREES OFFERED

### BS

Computer Engineering  
Computer Engineering: Machine Learning and Data Science  
Electrical Engineering  
Electrical Engineering: Machine Learning and Data Science

### MS

Electrical and Computer Engineering: Research  
Electrical and Computer Engineering: Machine Learning and Signal Processing (accelerated 12-16 month program)  
Electrical and Computer Engineering: Professional (accelerated 12-16 month program)  
Electrical and Computer Engineering: Power Engineering (online)

### PhD

Electrical and Computer Engineering

## STARTING SALARIES AND PLACEMENT\*

# \$70k+

UNDERGRADUATE  
Electrical Engineering

# \$84k+

UNDERGRADUATE  
Computer Engineering

# 94%

PLACEMENT

Undergraduates placed in a job or post-graduate studies within a year of graduation

\*approximate per year

# \$17.5m+

AVERAGE ANNUAL  
RESEARCH FUNDING

## ACCOMPLISHED FACULTY

# 26

National Science Foundation Career Award recipients

# 3

Presidential Early Career Award for Scientists and Engineers (PECASE) recipients

# 28

Fellows of IEEE and other societies

## Multi-investigator and shared RESEARCH FACILITIES

HSX - Helically Symmetric eXperiment  
Materials Research Science and Engineering Center  
Wisconsin Centers for Nanoscale Technology  
• Nanoscale Fabrication Center  
• Soft Materials Characterization Laboratory  
• Nanoscale Imaging and Analysis Center  
Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC)  
Wisconsin Energy Institute  
Wisconsin Institute for Discovery  
Power Systems Engineering Research Center  
Center for High Throughput Computing  
Wide-Bandgap Materials and Devices Lab with III-Nitride MOCVD Reactor

## DEPARTMENT CHAIR



**Susan Hagness**  
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## RESEARCH AREAS

Applied Electromagnetics and Acoustics  
Communications, Networks, Privacy and Security  
Computer Systems and Architecture  
Plasma Science and Fusion Energy  
Machine Learning, Signal Processing, and Information Theory  
Solid-state Electronics and Quantum Technologies  
Optics and Photonics  
Energy Systems  
Optimization and Control



Department of Electrical and Computer Engineering  
UNIVERSITY OF WISCONSIN-MADISON