



AY 2017-2018

ANNUAL REPORT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
UNIVERSITY OF CENTRAL FLORIDA

At the departmental level, the top priority has been to hire exceptional faculty members and increase the headcount of tenured/tenure-track faculty members from middle 20s in AY 2013-2014 to middle 40s. This increase would enable us to enhance education quality, to reduce the elevated student-to-faculty ratio, and to strengthen our research enterprise. Over the last 5 years, we have made significant progress toward achieving this goal:

- Our tenured/tenure-track headcount has reached 36, including 5 new faculty members (highlighted on the right) hired in AY 2017-2018; and we have 4 open positions to fill this year and next.
- Our undergraduate programs are enhanced with new tracks of Power and Renewable Energy, Communications and Signal Processing, RF and Microwaves, and Digital VLSI Circuits. Three new graduate certificates in Sustainable and Resilient Energy Systems, Secure Cyber Physical Systems, and Smart Communities are introduced.
- Our faculty continue to excel in their research endeavors, with a record of \$14M+ external funding last year.

Zhihua Qu
Professor and Chair of ECE
email: Qu@ucf.edu

RANKINGS

U.S. NEWS AND WORLD REPORT TOP 100 RANKINGS

In the 2019 List of Best Graduate Schools released by U.S. News and World Report, the graduate programs in UCF's Department of Electrical and Computer Engineering received the following rankings:

GRADUATE PROGRAM RANKING

Electrical Engineering

#55
(out of 183 ranked programs)

Computer Engineering

#53
(out of 145 ranked programs)



FACULTY

In 2018, ECE employed 13 Full Professors, 10 Associate Professors, 13 Assistant Professors, 8 Staff members, and 6 Lecturers with a total of 50 faculty and staff.



M. Mahdi Assefzadeh
Electrical Engineering
Rice University



Kenle Chen
Electrical Engineering
Purdue University



Chinwendu Enyioha
Electrical & Systems
Engineering
University of
Pennsylvania



Zhishan Guo
Computer Science
University of North
Carolina at Chapel Hill



Fan Yao
Electrical and Computer
Engineering
George Washington
University

NEW FACULTY

ABOUT

ECE has strong educational and research programs, with 275 graduate students and over 1,500 undergraduates.

Electrical Engineering (EE) and Computer Engineering (CpE)



AY 2017-2018
ENROLLMENT

1554

total undergraduate enrollment,
725 EE students
829 CpE students

275

total graduate enrollment, AY 2017-2018
63 EE MS students
45 CpE MS students
123 EE Ph.D students
44 CpE Ph.D students

1,869

number of total students



AY 2017-2018
DEGREES

244

total undergraduate degrees awarded
127 B.S.EE students
117 B.S.CpE students

105

total graduate degrees awarded
37 M.S.EE
42 M.S.CpE
19 Ph.D EE
7 Ph.D CpE



Student Organizations

Institute of Electrical and
Electronics Engineers (IEEE)
Eta Kappa Nu (HKN)
Women in EECs



**DEGREES AWARDED AY2017-2018 TO WOMEN
IN ELECTRICAL ENGINEERING AND COMPUTER
ENGINEERING AT UCF**

12% FEMALE

Undergraduate Degrees

24% FEMALE

Graduate Degrees

RESEARCH AND EDUCATION HIGHLIGHTS



National Winners

The U.S. Department of Energy (DOE) has announced the University of Central Florida's Cyber Defense Team as the national winner of DOE's 2018 CyberForce Competition™. Sponsored by DOE's Office of Cybersecurity, Energy Security, and Emergency Response (CESER), the CyberForce Competition is DOE's fourth cyber defense competition designed to develop the next generation of cybersecurity professionals to help defend and bolster our nation's critical energy infrastructure and ensure our energy security. This year's competition featured 66 teams chosen to participate from a pool of 97 schools who submitted bids to compete this year.

<http://www.cecs.ucf.edu/ucf-cyber-defense-team-wins-national-department-of-energy-competition/>



Newest Lab Opens

Smart Infrastructure Data Analytics Laboratory is opened as the newest research lab in the ECE Department. It focuses upon real-time data analytics, learning and control for such infrastructure systems as smart building management, renewable energy and digital grids, and smart communities. The lab enhances the collaborations among UCF faculty and students, Siemens, UCF Facility, Duke Energy, OUC, and City of Orlando, as well as the larger FEEDER Center. A Siemens-UCF Ideation Workshop was held to kick off R&D activities in the lab.

Collaboration Focused on Advancing Smart Infrastructure Technologies

UCF and Siemens unveiled a new collaboration around smart infrastructure. In addition to the existing Siemens' Digital Grid Lab, the newly expanded partnership establishes the Smart Infrastructure Data Analytics Lab in ECE. Software and hardware installed in the lab aims at improving the performance and efficiency of buildings and the energy grid by harnessing the power of data. The full release can be viewed at: <https://www.businesswire.com/news/home/20181019005078/en/>

AWARDEES OF OUTSTANDING ALUMNI



Herb Gingold '91, '14
Founder RV Intelligence

While working full time for Martin Marietta (Lockheed Martin), **Herb Gingold**, a Navy veteran, earned his bachelors of science in Electrical Engineering, graduating Summa Cum Laude in 1991. Herb also earned an MBA in 2014 from UCF's executive program, which led to a new phase in his career.

Inspired by a drive to create and a love for both product development and the RV lifestyle, Herb and his wife Vicky, founded RV Intelligence. The company's mission is to provide innovative products that enhance the recreational vehicle experience and contribute back to the community and environment.

In addition to annually giving to the CECS Alumni Endowed Scholarship, Herb has been a vocal advocate and supporter of UCF through volunteering, serving as chair of the Industry Advisory Board for the UCF Department of Electrical and Computer Engineering and immediate past-chair for the CECS Alumni Chapter Board. Herb considers himself the ultimate Knight, attending as many UCF events as he can.



Frank St. John '87, '91
Executive Vice President
for Lockheed Martin
Missiles and Fire Control

Frank St. John, a two-time graduate of the College earned his bachelors of science in EE in 1987 and a master's of science in EE in 1991. He is the executive vice president of Lockheed Martin Missiles and Fire Control (MFC).

He previously served as the MFC's executive vice president of Orlando Operations and Tactical Missiles/Combat Maneuver Systems.

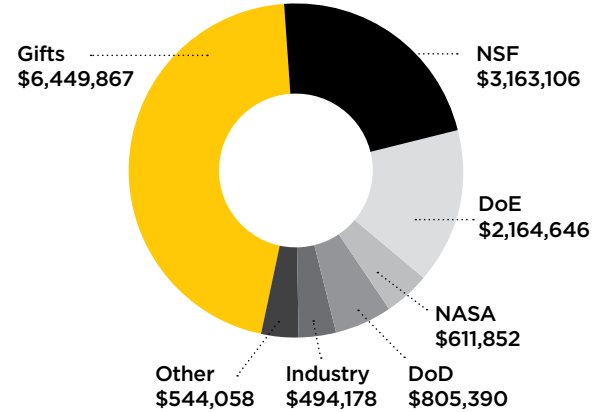
Throughout his career, Frank led several critical initiatives for Lockheed Martin, including Culture Optimization, Inclusion Council and the Florida United Way Board of Directors. He is the executive sponsor of the Lockheed Martin Able and Allies Employee Resources Group.

Frank is committed to his community. He currently serves as a member of the Institute of Electrical and Electronics Engineers and the Air Force Association. He is also on the Board of Directors of the Association of the United States Army Calvary Orlando and Orlando County Florida Jail Ministry.

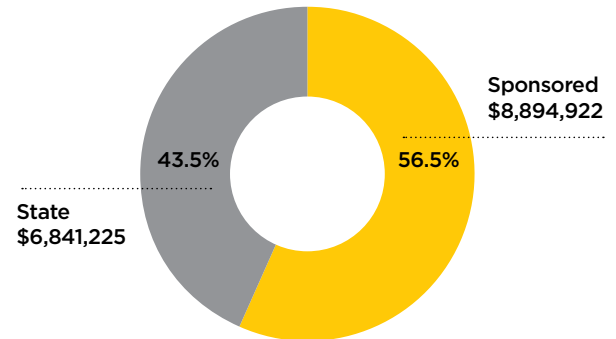
FINANCES

ECE Funding and Expenditure FY 2017-2018

New Funding \$14,233,097



Expenditure \$15,736,147



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