

# DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Almost any technology that distinguishes the 20<sup>th</sup> and 21<sup>st</sup> centuries from previous history has the imprint of electrical and computer engineering - electric power, radio, television, radar, satellite communication, global positioning system, medical diagnostic and procedure systems, sophisticated domestic appliances, cell phones, computers and sophisticated sensors and control systems used in underwater, space exploration and national security. Electrical and computer engineering has advanced national and global prosperity through research, development and application of electrical and computer technologies and sciences for the benefit of humanity, and has helped create the global village. By choosing electrical or computer engineering our graduates embark on an exciting and productive career with endless opportunities and help in shaping a better future for mankind.

The curriculum is designed to prepare the undergraduate for work in the highly diverse electrical and computer engineering profession. A solid foundation in physics, chemistry and mathematics is used to support courses in the fundamentals of electrical and computer engineering. The use of computers is integrated throughout the curriculum, and basic studies in circuits, electronics, electromagnetic fields and digital logic lead to a flexible program of electives in the junior and senior year. Electives may be chosen from the broad fields of analog and mixed-signal electronics, biomedical imaging, sensing and genomic signal processing, computer engineering and systems, device science and nanotechnology, electric power systems and power electronics, electromagnetics and microwaves, and information science and learning systems. Laboratory work is structured to first familiarize the student with the basic concepts and then to apply these concepts to solve engineering problems.

Undergraduate education plays a major part in helping the department to achieve its mission. The Electrical and Computer Engineering programs are accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). More information on these efforts can be found at the Department of Electrical and Computer Engineering (<http://engineering.tamu.edu/electrical/>) website by clicking on the link for ABET Accreditation.

## Faculty

Abu-Rub, Haithem A, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Gdansk University of Technology, Poland, 1995

Alnuweiri, Hussein, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, University of Southern California, 1989

Annapareddy, Narasimha, Professor  
Electrical & Computer Eng  
PHD, University of Illinois at Urbana-Champaign, 1990

Awadallah, Selma, Engineering Assistant Professor  
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PHD, University of Manchester, 2014

Balog Jr, Robert S, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2006

Begovic, Miroslav M, Professor  
Electrical & Computer Eng  
PHD, Virginia Polytechnic Institute, 1989

Bhattacharyya, S P, Professor  
Electrical & Computer Eng  
PHD, Rice University, 1971

Birchfield, Adam, Assistant Professor  
Electrical & Computer Eng  
PHD, Texas A&M University, 2018

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PHD, Telecom Paris Tech (ENST), 1996

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Electrical & Computer Eng  
PHD, John Hopkins University, 2002

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Electrical & Computer Eng  
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PHD, Concordia University, Montreal, 1984

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Electrical & Computer Eng  
PHD, University of Michigan, 2006

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PHD, Washington University in St. Louis, 1985

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Gratz, Paul V, Professor  
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PHD, The University of Texas at Austin, 2008

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Khatri, Sunil P, Professor  
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Rajendran, Jeyavijayan, Associate Professor  
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PHD, New York University, 2015

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Electrical & Computer Eng  
PHD, University of Cambridge, 1963

Righetti, Raffaella, Associate Professor  
Electrical & Computer Eng  
PHD, University of Houston, 2005

Russell Jr, Billy D, Distinguished Professor and Regents Professor  
Electrical & Computer Eng  
PHD, University of Oklahoma, 1975

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Shakkottai, Srinivas G, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2007

Shen, Yang, Associate Professor  
Electrical & Computer Eng  
PHD, Boston University, 2008

Shi, Weiping, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 1992

Silva-Martinez, Jose E, Professor  
Electrical & Computer Eng  
PHD, Katholieke Universiteit Leuven, 1992

Singh, Chanan, University Distinguished Professor and Regents Professor  
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PHD, University of Saskatchewan, 1972

Sprintson, Alexander, Professor  
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Tian, Chao, Associate Professor  
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PHD, Cornell University, 2005

Toliyat, Hamid A, Professor  
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PHD, University of Wisconsin, Madison, 1991

Tyler Jr, John E, Senior Lecturer  
Electrical & Computer Eng  
MS, University of Central Texas, 1979

Watson, Karan L, Senior Professor  
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PHD, Texas Tech University, 1982

Weichold, Mark H, Regents Professor  
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Williams, Richard, Professor  
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Wright, Steven M, Professor  
Electrical & Computer Eng  
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Xie, Le, Professor  
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Yi, Suin, Assistant Professor  
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PHD, Texas A&M University, 2017

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Zhang, Xi, Professor  
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Zou, Jun, Professor  
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PHD, University of Illinois, 2002

## Majors

- Bachelor of Science in Computer Engineering (<http://catalog.tamu.edu/undergraduate/engineering/electrical-computer/computer-engineering-bs/>)
- Bachelor of Science in Electrical Engineering (<http://catalog.tamu.edu/undergraduate/engineering/electrical-computer/electrical-bs/>)

## Minors

- Electrical Engineering Minor (<http://catalog.tamu.edu/undergraduate/engineering/electrical-computer/electrical-minor/>)