

# ELECTRICAL AND COMPUTER ENGINEERING PROGRAM

Almost any technology that distinguishes the 20<sup>th</sup> and 21<sup>st</sup> centuries from previous centuries 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 underwater or in space exploration and national security. Electrical and computer engineering has advanced national and global prosperity through research, development and the application of electrical and computer technologies and sciences for the benefit of humanity. By choosing electrical and computer engineering our graduates embark on an exciting and productive career with endless opportunities in shaping a better future for mankind.

## Program Mission

In support of the university mission, the mission of the Electrical and Computer Engineering Program is twofold:

- Providing quality education, well grounded in the fundamental principles of engineering that prepare students for positions in industry, government, and academia.
- Aiming to serve the industries and the governmental agencies in the State of Qatar through continuing education, outreach activities, consulting, and research.

## Program Educational Objectives

The objectives of the Electrical and Computer Engineering Program at Texas A&M University at Qatar describe what graduates of the program are expected to attain within a few years after graduation. The Program Educational Objectives are to:

1. Be competitive as electrical engineers in a diverse range of careers while maintaining high ethical standards.
2. Provide service to and assume leadership in their professional disciplines, organizations and communities around the world.
3. Seek and apply advanced knowledge through continuous learning such as pursuing graduate degrees/courses and professional development in their discipline or other fields.
4. Continue developing effective teamwork and communication skills.

The extent to which the program is meeting these objectives is periodically assessed through instruments such as alumni surveys and employer/recruiter surveys. The goal is to continually improve the program's ability to meet these educational objectives. The electrical engineering curriculum and individual course contents are periodically evaluated and adjusted in order to further support the ability to achieve the program objectives. The program welcomes comments and suggestions from any interested individuals regarding the above program objectives and/or how the program can better meet these objectives.

Before commencing coursework in the major, students must be admitted to the major or have the approval of the department.

The undergraduate program in Electrical and Computer Engineering at Texas A&M University at Qatar is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org/>.

## 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  
Electrical & Computer Eng-Qatar Campus  
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

Bouhali, Othmane, Research Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Universite Libre de Bruxelles, Faculte des Sciences, 1999

Boutros, Joseph J, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Telecom Paris Tech (ENST), 1996

Braga Neto, Ulisses, Professor  
Electrical & Computer Eng  
PHD, John Hopkins University, 2002

Butler-Purry, Karen L, Professor  
Electrical & Computer Eng  
PHD, Howard University, 1994

Cantrell Jr, Pierce E, Senior Associate Professor  
Electrical & Computer Eng  
PHD, Georgia Institute of Technology, 1981

Chamberland-Tremblay, Jean-Francois, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2004

Chen, Xin, Assistant Professor  
Electrical & Computer Eng  
PHD, Harvard University, 2022

Choi, Seong G, Associate Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 1994

Datta, Aniruddha, Professor  
Electrical & Computer Eng  
PHD, University of Southern California, 1991

Davis, Katherine M, Associate Professor  
Electrical & Computer Eng  
PHD, University of Illinois at Urbana-Champaign, 2011

Duffield, Nicholas G, Professor  
Electrical & Computer Eng  
PHD, Queen Mary College, Univ. of London, 1987

Ehsani, Mehrdad, Professor  
Electrical & Computer Eng  
PHD, University of Wisconsin, Madison, 1981

Enjeti, Prasad N, Professor  
Electrical & Computer Eng  
PHD, Concordia University, Montreal, 1984

Entesari, Kamran, Professor  
Electrical & Computer Eng  
PHD, University of Michigan, 2006

Georghiades, Costas N, Professor  
Electrical & Computer Eng  
PHD, Washington University in St. Louis, 1985

Ghrayeb, Ali, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, University of Arizona, 2000

Gratz, Paul V, Professor  
Electrical & Computer Eng  
PHD, The University of Texas at Austin, 2008

Han, Arum, Professor  
Electrical & Computer Eng  
PHD, Georgia Institute of Technology, 2005

Harris, Harlan R, Associate Professor  
Electrical & Computer Eng  
PHD, Texas Tech University, 2003

Hemmer, Philip R, Professor  
Electrical & Computer Eng  
PHD, Massachusetts Inst of Technology, 1984

Hou, I-Hong, Professor  
Electrical & Computer Eng  
PHD, University of Illinois Urbana Champaign, 2011

Hoyos, Sebastian, Professor  
Electrical & Computer Eng  
PHD, University of Delaware, 2004

Hu, Jiang, Professor  
Electrical & Computer Eng  
PHD, University of Minnesota, 2001

Iskander, Marco, Instructional Assistant Professor  
Electrical & Computer Eng  
MBA, University of Waterloo, 2020

Jang, Wonhyeok, Lecturer  
Electrical & Computer Eng  
PHD, University of Illinois at Urbana-Champaign, 2017

Ji, Jim X, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2003

Ji, Jim X, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, University of Illinois, 2003

Kalafatis, Stavros, Professor of the Practice  
Electrical & Computer Eng  
MS, University of Arizona, 1991

Karsilayan, Aydin I, Associate Professor  
Electrical & Computer Eng  
PHD, Portland State University, 2000

Katehi-Tseregounis, Linda, Professor  
Electrical & Computer Eng  
PHD, University of California, 1984

Kezunovic, Mladen, Regents Professor  
Electrical & Computer Eng  
PHD, University of Kansas, 1980

Khatri, Sunil P, Professor  
Electrical & Computer Eng  
PHD, University of California at Berkeley, 1999

Kim, Soaram, Assistant Professor  
Electrical & Computer Eng  
PHD, Clemson University, 2018

Kish, Laszlo B, Professor  
Electrical & Computer Eng  
PHD, Uppsala University, Sweden, 1994

Kumar, Panganamala R, University Distinguished Professor and Regents Professor  
Electrical & Computer Eng  
PHD, Washington University in St. Louis, 1977

Kurban, Hasan, Research Assistant Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Indiana University, 2017

Lin, Paotai, Associate Professor  
Electrical & Computer Eng  
PHD, Northwestern University, 2009

Liu, Tie, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2006

Lu, Mi, Professor  
Electrical & Computer Eng  
PHD, Rice University, 1987

Lusher, John D, Professor of the Practice  
Electrical & Computer Eng  
PHD, Texas A&M University, 2018

Madsen, Christi K, Professor  
Electrical & Computer Eng  
PHD, Rutgers State University of New Jersey, 1996

Manisseri Kalathil, Dileep, Associate Professor  
Electrical & Computer Eng  
PHD, University of Southern California, Los Angeles, 2014

Menon, Arya, Assistant Professor  
Electrical & Computer Eng  
PHD, Oregon State University, 2021

Michalski, Krzysztof A, Associate Professor  
Electrical & Computer Eng  
PHD, University of Kentucky, 1981

Miller, Scott L, Professor  
Electrical & Computer Eng  
PHD, University of California at San Diego, 1988

Moreira-Tamayo, Oscar, Professor of the Practice  
Electrical & Computer Eng  
PHD, Texas A&M University, 1996

Narayanan, Krishna R, Professor  
Electrical & Computer Eng  
PHD, Georgia Institute of Technology, 1998

Nevels, Robert D, Professor  
Electrical & Computer Eng  
PHD, University of Mississippi, 1979

Nounou, Hazem N, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Ohio State University, 2000

Nowka, Kevin J., Professor Of The Practice  
Electrical & Computer Eng  
PHD, Stanford University, 1995

Overbye, Thomas J, Professor  
Electrical & Computer Eng  
PHD, University of Wisconsin, 1991

Palermo, Samuel M, Professor  
Electrical & Computer Eng  
PHD, Stanford University, 2007

Peebles, Joshua, Assistant Professor  
Electrical & Computer Eng  
PHD, University of Florida, 2022

Qaraq, Khalid A, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, Texas A&M University, 1997

Qian, Xiaoning, Professor  
Electrical & Computer Eng  
PHD, Yale University, 2005

Rajendran, Jeyavijayan, Associate Professor  
Electrical & Computer Eng  
PHD, New York University, 2015

Rentzepis, Peter M, Professor  
Electrical & Computer Eng  
PHD, University of Cambridge, 1963

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

Roy, Sandip, Professor  
Electrical & Computer Eng  
PHD, Massachusetts Institute of Technology, 2003

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

Savari, Serap A, Associate Professor  
Electrical & Computer Eng  
PHD, Massachusetts Inst of Technology, 1996

Serpedin, Erchin, Professor  
Electrical & Computer Eng  
PHD, University of Virginia, 1999

Serpedin, Erchin, Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, University of Virginia, 1999

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  
Electrical & Computer Eng  
PHD, University of Saskatchewan, 1972

Sprintson, Alexander, Professor  
Electrical & Computer Eng  
PHD, Israel Institute of Technology, 2003

Tian, Chao, Associate Professor  
Electrical & Computer Eng  
PHD, Cornell University, 2005

Toliyat, Hamid A, Professor  
Electrical & Computer Eng  
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  
Electrical & Computer Eng  
PHD, Texas Tech University, 1982

Weichold, Mark H, Regents Professor  
Electrical & Computer Eng  
PHD, Texas A&M University, 1983

Williams, Richard, Professor  
Electrical & Computer Eng  
PHD, University of California at Berkeley, 1978

Wright, Steven M, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 1984

Xie, Le, Professor  
Electrical & Computer Eng  
PHD, Carnegie Mellon University, 2009

Xiong, Zixiang, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 1996

Yi, Suin, Assistant Professor  
Electrical & Computer Eng  
PHD, Texas A&M University, 2017

Yoon, Byung-Jun, Professor  
Electrical & Computer Eng  
PHD, California Institute of Technology, 2007

Zhang, Xi, Professor  
Electrical & Computer Eng  
PHD, University of Michigan, 2002

Zilany, Muhammad Shamsul Arefeen, Instructional Assistant Professor  
Electrical & Computer Eng-Qatar Campus  
PHD, McMaster University, 2007

Zou, Jun, Professor  
Electrical & Computer Eng  
PHD, University of Illinois, 2002

## Majors

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

## Minors

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