# 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:

- Be competitive as electrical engineers in a diverse range of careers while maintaining high ethical standards.
- Provide service to and assume leadership in their professional disciplines, organizations and communities around the world.
- 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

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

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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

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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, Associate Professor Electrical & Computer Eng

PHD, University of Illinois Urbana Champaign, 2011

Hoyos, Sebastian, Associate Professor Electrical & Computer Eng

PHD, University of Delaware, 2004

Hu, Jiang, Professor Electrical & Computer Eng

PHD, University of Minnesota, 2001

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

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Kalafatis, Stavros, Professor of the Practice

Electrical & Computer Eng MS, University of Arizona, 1991 Karsilayan, Aydin I, Associate Professor

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PHD, Portland State University, 2000

Katehi-Tseregounis, Linda, Professor

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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

Lin, Paotai, Associate Professor Electrical & Computer Eng

PHD, Northwestern University, 2009

Liu, Tie, Professor

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Electrical & Computer Eng PHD, Rice University, 1987

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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, Assistant Professor

**Electrical & Computer Eng** 

PHD, University of California at Berkeley, 2014

Michalski, Krzysztof A, Associate Professor

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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

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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

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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

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

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PHD, Texas A&M University, 1997

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

Rahimian, Mina M, Senior Lecturer Electrical & Computer Eng PHD, Texas A&M University, 2011

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

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

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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

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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-computerengineering-program/electrical-engineering-bs/)

#### **Minors**

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