

# DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

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**Head:** C. Georghiades

**Graduate Advisor:** J. Hu

The Department of Electrical and Computer Engineering offers programs for graduate study leading to the research-oriented Master of Science and Doctor of Philosophy degrees and to the professional Master of Science non-thesis degree in Electrical and Computer Engineering. Courses in the department may also be applied to the interdisciplinary Doctor of Engineering degree. The MS and PhD programs provide specialization in-depth and include a research (thesis or dissertation) requirement. The MS non-thesis and DEng programs are designed to provide the depth and breadth necessary for the practice of engineering at advanced levels.

Current areas of study include analog and mixed signal, biomedical imaging and genomic signal processing, computer engineering, electromagnetic and microwaves, electric power and power electronics, solid state electronics, photonics and nano-engineering, telecommunications, signal processing and controls. Interdisciplinary engineering programs are available in other areas.

Well equipped laboratories are available for work in all of these areas. Special laboratory facilities are available to graduate students in telecommunications, solid-state electronics, integrated circuit design, electromagnetics, microwave microelectronics, electrotropics, computer vision and electric power systems. The department has many workstations and high end PCs in general access laboratories and excellent computing facilities available in the individual research laboratories. The workstations are supported by a large Sun file servers and two computational servers, and the PCs are supported by a Novell network.

There is no foreign language requirement for the PhD or DEng programs in electrical and computer engineering.

## 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

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Electrical & Computer Eng  
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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

Georghiadis, 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  
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PHD, The University of Texas at Austin, 2008

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Harris, Harlan R, Associate Professor  
Electrical & Computer Eng  
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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

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

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Kalafatis, Stavros, Professor of the Practice  
Electrical & Computer Eng  
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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  
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Kim, Soaram, Assistant Professor  
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PHD, Clemson University, 2018

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

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

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PHD, Indiana University, 2017

Lin, Paotai, Associate Professor  
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Liu, Tie, Professor  
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Lu, Mi, Professor  
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Moreira-Tamayo, Oscar, Professor of the Practice  
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Narayanan, Krishna R, Professor  
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Nevels, Robert D, Professor  
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PHD, University of Mississippi, 1979

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PHD, Texas A&M University, 1997

Qian, Xiaoning, Professor  
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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

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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  
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

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  
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PHD, Carnegie Mellon University, 2009

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

Yoon, Byung-Jun, Professor  
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Zhang, Xi, Professor  
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PHD, University of Michigan, 2002

Zilany, Muhammad Shamsul Arefeen, Instructional Assistant Professor  
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PHD, McMaster University, 2007

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

- Semiconductor Manufacturing Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/semiconductor-manufacturing-certificate/>)

## Masters

- Master of Engineering in Computer Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/computer-meng/>)
- Master of Engineering in Electrical Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/electrical-meng/>)
- Master of Science in Computer Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/computer-ms/>)
- Master of Science in Electrical Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/electrical-ms/>)

## Doctoral

- Doctor of Philosophy in Computer Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/computer-phd/>)
- Doctor of Philosophy in Electrical Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/electrical-phd/>)

## Certificates

- Analog and Mixed-Signal Integrated Circuit Design Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/analog-and-mixed-signal-integrated-circuit-design-certificate/>)
- Digital Integrated Circuit Design Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/digital-integrated-circuit-design-certificate/>)
- Electric Energy Systems Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/electric-energy-systems-certificate/>)
- Electromagnetic Fields and Microwave Circuit Design Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/electrical-computer/electromagnetic-fields-microwave-circuit-design-certificate/>)