DEPARTMENT FACULTY AND RESEARCH INTERESTS

Alkim Akyurtlu, Ph.D., Penn State
Computational electromagnetics, metamaterials and antennas

Craig Armiento, Ph.D., MIT
Fiber optics, semiconductors and devices

Kavitha Chandra, D.Eng., UMass Lowell
Communications networks

George Cheney, M.S., UMass Lowell
Digital and analog design, automated test systems, software engineering

Tingshu Hu, Ph.D., University of Virginia
Dynamic systems and control

Oliver Ibe, Ph.D., MIT
Mobile and converged communications

Omer Khan, Ph.D., UMass Amherst
Computer architecture

Xuejun Lu, Ph.D., University of Texas at Austin
Optoelectronics, nanophotonics and fiber optics

Yan Luo, Ph.D., University of California, Riverside
Computer architecture

Mufeed Mah'd, Ph.D., University of Western Ontario
Digital signal and medical image processing

Martin Margala, Ph.D., University of Alberta
Digital and mixed-signal VLSI design and testing

Dalila Megherbi, Ph.D., Brown University
Digital image processing, computer vision, AI, networking, distributed and embedded systems

Samson Mill ‘Stein, Ph.D., University of Jerusalem
Semiconductor electronics and technology

Kanti Prasad, Ph.D., University of South Carolina
Reliability analysis and enhancement for GaAs and silicon devices

Tenneti C. Rao, Ph.D., Indian Institute of Science
Electromagnetics

Ziyad Salameh, Ph.D., University of Michigan
Renewable power and energy

Joel Therrien, Ph.D., University of Illinois at Urbana-Champaign
Nanoelectromechanical devices, chemical/biological sensors, optoelectronics

Charles Thompson, Ph.D., MIT
Acoustics, systems and field theory

Anh Tran, Ph.D., University of Rhode Island
Logic design and switching theory

Xingwei Wang, Ph.D., Virginia Tech
Optical biosensing and biomedical devices; temperature, pressure, acoustic, strain and chemical sensors

Jay Weitz, Ph.D., University of Wisconsin-Madison
Wireless communication

DEGREES AND CERTIFICATES

Computer Engineering
Master of Science (M.S.) Program
Doctor of Philosophy (Ph.D.) Program
Doctor of Engineering (D.Eng.) Program

Electrical Engineering
Master of Science (M.S.) Program
Doctor of Philosophy (Ph.D.) Program
Doctor of Engineering (D.Eng.) Program

Graduate Certificates
Biomedical Engineering
Communications Engineering
Energy Conversion
Microwave and Wireless Engineering
Photonics and Optoelectronics
Stochastic Systems
Telecommunications
VLSI and Microelectronics

The College of Engineering
Graduate Programs
WHO WE ARE
The Department of Electrical & Computer Engineering (ECE) at the University of Massachusetts Lowell offers graduate programs leading to master of science (M.S.), doctor of engineering (D.Eng.) and doctor of philosophy (Ph.D.) degrees. There are several active research areas in the ECE Department, which are funded by the National Science Foundation (NSF), the Air Force Office of Scientific Research (AFOSR), the Defense Advanced Research Projects Agency (DARPA) and the Office of Naval Research (ONR), as well as various companies, including Raytheon and Intel.

FIELDS OF SPECIALIZATION
Our experienced faculty has active research programs in a diverse number of specialization areas, including:

- Communications
- Computer Architecture
- Control Systems
- Digital Signal Processing
- Distributed Networking
- Embedded Systems
- Metamaterials
- Optoelectronic Devices
- Power Distribution
- Alternative Energy Sources
- Nanotechnology

RESEARCH FACILITIES
Research Centers
Advanced Electronics Technology Center; Center for Advanced Computation and Telecommunications; Center for Machine/Human Intelligence, Networking and Distributed Systems; Center for Electric Cars and Energy Conversion and the Center for Electromagnetic Materials and Optical Systems

Research Labs
Advanced Digital Systems Design and Microprocessors Laboratory; Battery Evaluation Laboratory; Computer Architecture Laboratory; Distributed Semiconductors Laboratory; Electric Vehicles Laboratory; Electromagnetic and Complex Media Laboratory; Microwave Laboratory; Networking, Artificial and Machine Intelligence and Computer Vision Laboratory; Renewable Energy Laboratory; Computer Architecture and Network Systems Laboratory; VLSI Design Laboratory

ADMISSION REQUIREMENTS
All applicants for either the M.S., D.Eng. or Ph.D. programs in Electrical Engineering must take the GRE general examination. Official transcripts and three letters of recommendation must be submitted along with the graduate application. Foreign students without a bachelor's degree from a U.S. institution are required to take the TOEFL examination. After the minimum requirements are met, the Electrical Engineering Graduate Committee evaluates each case on an individual basis.

FINANCIAL SUPPORT
A number of teaching assistant positions are available for doctoral students. Research assistantships may be awarded to incoming students who have outstanding credentials. Students are also encouraged to seek out faculty members whose research areas closely match the field in which they would like to pursue their degree.

DEADLINES
Although there are no deadlines for applications, in order to be considered for a department teaching assistantship, applications for the fall semester must be completed by Feb. 15.

CONTACTS
For more information on the Electrical & Computer Engineering Graduate Programs, visit: www.uml.edu/ecegrad

Graduate Program Coordinators:
Master of Science: Prof. Anh Tran
anh_tran@uml.edu
978-934-3322

Doctoral: Prof. Alkim Akyurtlu
ECE_Doctoral_Coordinator@uml.edu
978-934-3336

Go to: www.uml.edu/ecegrad