THE UNIVERSITY OF TENNESSEE KNOXVILLE

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE

401 Min H. Kao Building
1520 Middle Drive
Knoxville, TN 37996-2250
Phone: (865) 974-3461
http://www.eecs.utk.edu

November 16, 2015

Dear Dr. V. "Ragu" Balakrishnan,

The attached flyers may be of interest to the students and faculty in your department. The 1-page UTK EECS Fact Sheet briefly describes the Department of Electrical Engineering and Computer Science at The University of Tennessee.

We have an opening for a tenure track assistant/associate professor in cyber security, and the advertisement flyer has more information on the position. Please post the advertisement in your department.

Our NSF/DOE Engineering Research Center, CURENT, has some fellowships and graduate research assistantships available in power electronics and power systems. Please post the two flyers that contain some additional information on these opportunities for prospective M.S. and Ph.D. students.

If you need any additional information about these opportunities at The University of Tennessee, please let me know.

Sincerely,

Leon M Tolbert

Leon M. Tolbert
Min H. Kao Professor and Department Head

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE
fact sheet

www.eecs.utk.edu

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LEADERSHIP

Dr. Leon Tolbert, Department Head
Min H. Kao Building, Suite 401
1520 Middle Drive
Knoxville, TN 37996-2250
Phone: (865) 974-3461
www.facebook.com/EECS.UTK
www.twitter.com/EECS_UTK

MISSION

We are the Department of Electrical Engineering and Computer Science at the University of Tennessee, the largest department in the College of Engineering. We have 47 faculty members, who are respected, world-class leaders in their fields and are dedicated to teaching students and aiding them in developing the technical and communication skills necessary to have successful careers. Our rigorous curriculum prepares students to be successful in their future profession and offers the flexibility for students to choose courses that match their interest areas.

ACADEMICS

Enrollment Figures

Enrollment (Full-Time) Academic Year 2015-2016

Undergraduate	747
Graduate	249
Total	**996**
Ph.D. Enrollment	200

Fall 2015 Freshman Enrollment

Computer Science	72
Computer Engineering	54
Electrical Engineering	42
Total EECS Freshmen	**166**

Degrees Granted Academic Year 2014-2015

Undergraduate	99
M.S.	24
Ph.D.	31
Total	**154**

Faculty Academic Year 2015-2016

Professors	21
Associate Professors	13
Assistant Professors	9
Professors of Practice	4
Total	**47**

FACULTY AWARDS

National Academy of Engineering (NAE) Members: 2

NSF and DOE Career Award Winners: 7

IEEE Fellows: 9

Faculty Members with an ORNL Appointment: 20

Oak Ridge National Laboratory is the largest US Department of Energy science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy and security. ORNL's diverse capabilities span a broad range of scientific and engineering disciplines, enabling the Laboratory to explore fundamental science challenges and to carry out the research needed to accelerate the delivery of solutions to the marketplace. ORNL is located near the University of Tennessee in the town of Oak Ridge, and several EECS Faculty members have joint ORNL appointments there and even more have joint collaborations.

RESEARCH CENTERS

Center for Ultra-wide-area Resilient Electric Energy Transmission Networks (CURENT) curent.utk.edu CURENT was founded by the National Science Foundation (NSF) under the prestigious Engineering Research Center (ERC) program. Base funding provided by the NSF and the US Department of Energy is at $4 million per year. CURENT is the first and only ERC at UT and works closely with its industrial partners with a focus on improving the nation's electric power transmission system and accommodating a high level of renewable energy penetration.

Innovative Computing Laboratory (ICL) icl.utk.edu The Innovative Computing Laboratory (ICL) is a large computer science research and development group specializing in advanced scientific and high performance computing. ICL's founder, Dr. Jack Dongarra, established the lab in 1989. Dr. Dongarra is the creator of the LINPACK Benchmarks, linear algebra tests that measure the mathematical capabilities of computers. The latest version of these benchmarks is used to build the TOP500 list, ranking the world's most powerful supercomputers.

Center for Intelligent Systems and Machine Learning (CISML) cisml.utk.edu Comprised of university faculty and research staff from Oak Ridge National Laboratory (ORNL) and industry affiliates, CISML focuses on the development of algorithms and software for systems and processes that exhibit intelligent behavior, operate autonomously, and adapt to environmental changes.

Institute for Biomedical Engineering (iBME) ibme.utk.edu The iBME seeks to develop and implement revolutionary, life-enhancing biomedical engineering solutions, which will be accomplished by uniting and leveraging the resources of diverse disciplines throughout the UT system.

DEGREES, MINORS & CERTIFICATES OFFERED

Degrees

Bachelor of Science
Electrical Engineering
Computer Engineering
Computer Science

Master of Science
Electrical Engineering
Computer Engineering
Computer Science

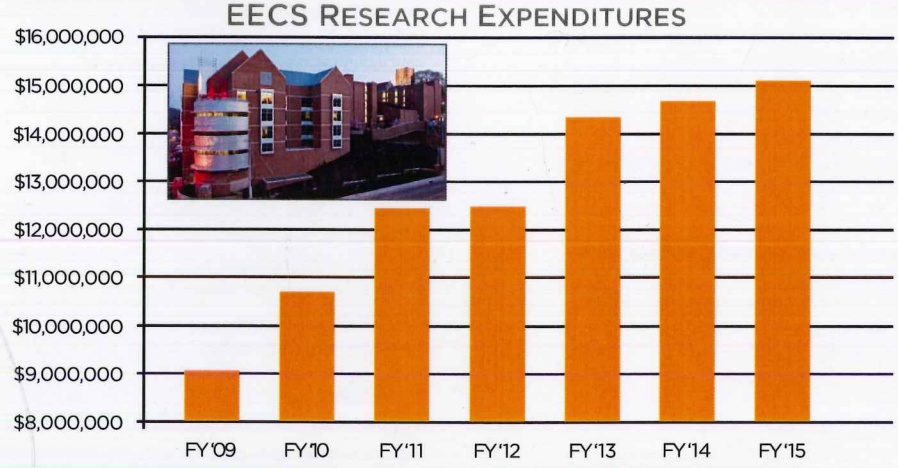
Doctor of Science
Electrical Engineering
Computer Engineering
Computer Science

Minors & Certificates

- ***Computer Science Minor***
- ***Cybersecurity Minor***
- ***Datacenter Technology and Management Minor***
- ***Power and Energy Systems Graduate Certificate***
- ***Fire Protection Engineering Graduate Certificate***
- ***Reliability and Maintainability Engineering Graduate Certificate – Electrical Engineering and Computer Engineering Concentration***

FINANCIALS

EECS RESEARCH EXPENDITURES



EECS Research Expenditures for Fiscal Year 2015: **$15,087,603**

EECS Research Expenditures per T/TT Faculty for Fiscal Year 2015: **$350,874**

ASEE Survey Data

24th nationally among public EECS programs in research expenditures per tenure-line faculty member.
22nd nationally among public EECS programs in Ph.D. enrollment per tenure-line faculty member.

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fact sheet

Research Areas

Power Systems, Power Electronics and Renewable Energy
Electric Vehicles (EVs)
High Temperature Power Electronics
Power Electronics for Renewable Energy
Power System Monitoring and Control
Power Grid Modeling and Economics

Microelectronics, Microwaves and MEMS
Analog and Mixed-Signal Circuits
Antennas and Microwaves
Bio-Electronics and Sensors
Integrated Circuits

Biological Applications
Bioelectronics
Bioinformatics
Bio-Medical Devices
Biotechnology and Bio-Sensor Design
Computational and Systems Biology

Networked and Embedded Systems
Cyber Security
Mobile Cloud Computing
Network Privacy and Security
Power Control in Wireless Networks
Real-Time Embedded Systems
Sensor Networks

Signal Processing, Communications and Controls
Automatic Control
Communications
Information Theory
Statistical Signal Processing

Visual Computing and Image Processing
3D Rendering
Biomedical and Scientific Data Visualization
Computational Imaging
Computer Vision
Graphical Programming Environments
Pattern Recognition

Intelligent Systems, Data Mining, and Machine Learning
Artificial and Distributed Intelligence
Data Analytics
Deep Machine Learning
Emergent Computation
Robotics
Neuromorphic Computing

High Performance and Scientific Computing
Data Storage
Distributed Computing
Mathematical Software
Parallel Processing

Five-Year BS/MS Program

The **Five-Year BS/MS Program** allows qualifying undergraduate students to take up to 6 hours of approved graduate courses for their senior electives and have them count toward both their BS and MS degrees at the University of Tennessee thereby reducing the amount of time it takes to earn the latter.

IEEE Graduate Student Robotics Team

Scholarships & Fellowships

Scholarships
Carol and Malcolm Bayless
Dr. M.E. and Mrs. J.N. Casey
Grace O. Davis
Department of Electrical Engineering & Computer Science
Christopher J. and Michelle R. Gentry
S.T. Harris
Urban and Susan Hilger
Beta-Phi Chapter, Eta Kappa Nu
Dr. E. Johnson and Mrs. L.H. Kennedy
Alliene Lay
W.O. Leffell
Edgar Wyman McCall
Harlan D. and Luella C. Mills
Billy J. and Sylvia F. Moore
L.B. Murray, Jr.
Leonard B. Murray, Sr.
Erby Roy and Jean Bush Nankivell
Leonard and Betty Shealy
Charles and Martha Sprankle
David W. Straight
Fred Smith Vreeland
Charles Weaver Memorial
Arthur F. Woods
Min H. Kao Scholars

Fellowships
Bodenheimer Fellowships
Dr. Vaughn Blalock Graduate Memorial Award
Chancellor's Honors Awards
Min. H. Kao Fellowships
Ron Nutt Graduate Fellowships
Department Excellence Awards

Student Organizations

ACM

The student chapter of the Association for Computing Machinery at the University of Tennessee is dedicated to serving its members by providing information about job opportunities, the computer science fields, and a location for our local members to share their knowledge and experience in the world.

Eta Kappa Nu

Eta Kappa Nu is the International Electrical Engineering Honor Society, with more than 100,000 members and 194 chapters in the United States, Canada and Europe. To be eligible for induction, a student's scholastic standing must be in the upper quarter of the junior class or the upper third of the senior class in electrical or computer engineering.

IEEE

The Student Chapter of the Institute for Electrical and Electronics Engineers (IEEE, "eye-triple-E") is a professional society seeking to involve students enrolled in the study of electrical and computer engineering at the University of Tennessee, Knoxville

Systers

The mission of Systers: Women in EECS @ UTK is to recruit, mentor, and retain women in Electrical Engineering and Computer Science at the University of Tennessee.

Systers is proud of their accomplishments so far: mentoring young women entering EECS, reaching out to girls in the community to tell them about opportunities in our field, and helping ensure that talented students have access to our department's resources and our community's industry opportunities, regardless of gender.

Tau Beta Pi

Tau Beta Pi's collegiate chapters elect members who have distinguished themselves with outstanding scholarship and character. Founded in 1885 to mark in a fitting manner those who have conferred honor upon their alma mater by distinguished scholarship and exemplary character as undergraduates in engineering, or by their attainments as alumni in the field of engineering, and to foster a spirit of liberal culture in engineering colleges. The Tennessee Alpha Chapter at the University of Tennessee, Knoxville was founded in 1929.

THE UNIVERSITY OF TENNESSEE KNOXVILLE

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE

TENURE TRACK FACULTY POSITION IN CYBERSECURITY

The Department of Electrical Engineering and Computer Science (EECS) at The University of Tennessee, Knoxville (UTK) is seeking candidates for a tenure track faculty member at the assistant or associate professor level in cybersecurity. Applicants should have an earned Ph.D. in Computer Science, Computer Engineering, or a related field. Successful candidates will be expected to teach at both undergraduate and graduate levels, to establish a vigorous funded research program, and to have a willingness to collaborate with other faculty in research.

EECS is housed in a new $37.5 million teaching and research facility completed in 2012. The department currently has an enrollment of more than 700 undergraduate and 230 graduate students, with a faculty of 45, and research expenditures that exceed $15 million per year. EECS offers two undergraduate minors in cybersecurity that were started in 2015. Successful candidates will be expected to contribute to the expansion of related educational and research activities in this area. UTK is a leading research institution with strong research partnerships with organizations such as the nearby Oak Ridge National Laboratory (ORNL). This faculty position has unique opportunities for collaborating with cybersecurity personnel at ORNL, Cisco Systems, and other companies in the Knoxville area. More information can be found about the department at www.eecs.utk.edu.

The Knoxville campus of the University of Tennessee is seeking candidates who have the ability to contribute in meaningful ways to the diversity and intercultural goals of the University. The University of Tennessee welcomes and honors people of all races, genders, creeds, cultures, and sexual orientations, and values intellectual curiosity, pursuit of knowledge, and academic freedom and integrity. Interested candidates should apply at:

https://academicjobsonline.org/ajo/UTK/EECS/6272/apply

and submit a cover letter, a curriculum vitae, a statement of research and teaching interests, and contact information for three references. **Review of applications will begin on January 10, 2016, and continue until the positions are filled.**

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.

CURENT
CENTER FOR ULTRA-WIDE-AREA RESILIENT ELECTRIC ENERGY TRANSMISSION NETWORKS

announces a new **DOE Traineeship Program** for Hands-On Experiences with **Wide Bandgap Power Electronics**

Details:

- Fellowships available for M.S. or Ph.D. students
- Pay is $30,000 / year plus tuition waiver
- Six new fellowships are available starting Fall 2016
- Applicants must be U.S. citizens

Application Deadline is February 1, 2016

For more information, go to:
curent.utk.edu/wbgtraineeship

CURENT

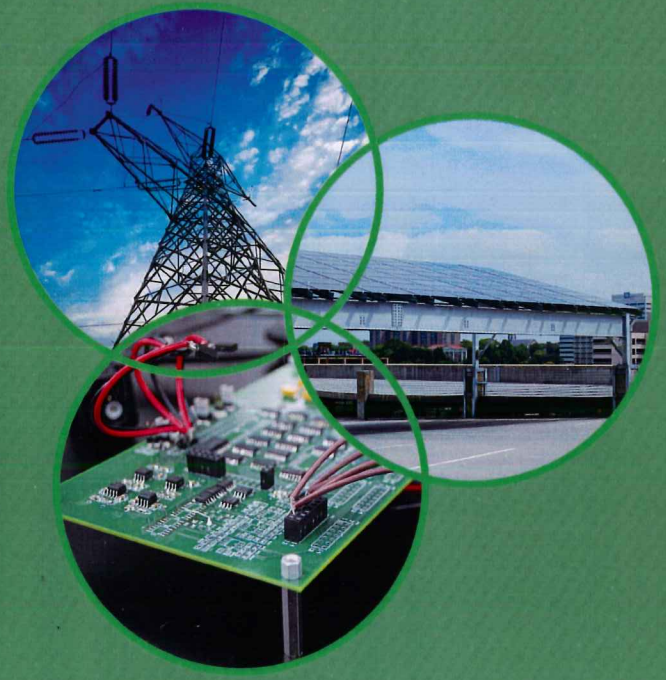
THE UNIVERSITY OF TENNESSEE KNOXVILLE

OAK RIDGE National Laboratory

DEPARTMENT OF ENERGY · UNITED STATES OF AMERICA

CURENT

CENTER FOR ULTRA-WIDE-AREA RESILIENT ELECTRIC ENERGY TRANSMISSION NETWORKS



announces new **Graduate Research Assistantships** in Power Systems, Power Electronics, Smart Grid, & Renewable Energy

Details:

- Graduate Research Assistantships available for M.S. or Ph.D. students
- $30,000 / year stipend plus tuition waiver & graduate school application fee waiver
- Up to 12 new assistantships available
- Assistantships start Fall 2016
- Applicants must be U.S. citizens
- Women and minorities are encouraged to apply

Application Deadline is February 1, 2016

For more information, go to:
curent.utk.edu/research/gra2016

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NSF

DEPARTMENT OF ENERGY · UNITED STATES OF AMERICA