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.

### Admission and Financial Data

#### Enrollment Figures

<table>
<thead>
<tr>
<th>Enrollment (Full-Time)</th>
<th>Academic Year 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>747</td>
</tr>
<tr>
<td>Graduate</td>
<td>249</td>
</tr>
<tr>
<td>Total</td>
<td>996</td>
</tr>
<tr>
<td>Ph.D. Enrollment</td>
<td>200</td>
</tr>
</tbody>
</table>

#### Fall 2015 Freshman Enrollment

<table>
<thead>
<tr>
<th>Enrollment (Full-Time)</th>
<th>Academic Year 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science</td>
<td>72</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>54</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>42</td>
</tr>
<tr>
<td>Total EECS Freshmen</td>
<td>166</td>
</tr>
</tbody>
</table>

#### Degrees Granted

<table>
<thead>
<tr>
<th>Degrees Granted</th>
<th>Academic Year 2014-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
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</tr>
<tr>
<td>M.S.</td>
<td>24</td>
</tr>
<tr>
<td>Ph.D.</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
</tr>
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</table>

#### Faculty

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Academic Year 2015-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>21</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>13</td>
</tr>
<tr>
<td>Assistant Professors</td>
<td>9</td>
</tr>
<tr>
<td>Professors of Practice</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
</tr>
</tbody>
</table>

#### Research Centers

- **Center for Ultra-wide-area Resilient Electric Energy Transmission Networks (CURENT)**
  - [current.utk.edu](http://current.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](http://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](http://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](http://ibme.utk.edu)
  - The IBME seeks to develop and implement revolutionary, life-enhancing biomedical engineering solutions, which will be accomplished by unifying 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

#### Financial Data

**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.
Congratulations on becoming a part of Engineering and Computing.

**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
  - Biototechnology 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

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**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.

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**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
- Aliene 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

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**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.