The Electrical Engineering Department of Sharif University of Technology is the country’s top electrical engineering institute with international-level research and constant influx of the best students at both the undergraduate and graduate levels. The department hosts many research laboratories as well as three national centers of excellence, i.e., Communication Access Systems, Cryptography, and Power System Management and Control.

**Undergraduate Course Structure**

<table>
<thead>
<tr>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>4th year</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Math. (I), (II)</td>
<td>• Network Theory</td>
<td>• Communication Systems</td>
<td>• One compulsory course and one elective course from the specialization field</td>
</tr>
<tr>
<td>• Physics (I), (II)</td>
<td>• Engineering Math.</td>
<td>• Electronics</td>
<td>• Two elective courses</td>
</tr>
<tr>
<td>• Principles of Electrical Engineering</td>
<td>• Numerical Analysis</td>
<td>• Linear Control Theory</td>
<td>• BSc project (I)</td>
</tr>
<tr>
<td>• English Language</td>
<td>• Electromagnetics</td>
<td>• Power System Analysis (I)</td>
<td>• One elective course</td>
</tr>
<tr>
<td>• Diff. Equations</td>
<td>• Logic Circuits &amp; Digital Systems</td>
<td>• Two compulsory courses and one elective course from the specialization field</td>
<td>• Engineering Ethics</td>
</tr>
<tr>
<td>• Analog Circuits</td>
<td>• Circuits &amp; Systems</td>
<td>• Probability &amp; Statistics</td>
<td>• BSc project (II)</td>
</tr>
<tr>
<td>• Computer Programming</td>
<td>• Computer &amp; Microprocessor Structure</td>
<td>• Computer &amp; Microprocessor Structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Electric Power Conversion (I)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Graduate Program**

Graduate courses in electrical engineering are offered in the following areas:
• Communications (Communication systems, Cryptography, Electromagnetics & Optics)
• Electronics (Circuits, Electronic devices)
• Electric Power Engineering (Power systems,
Power Electronics & Electric Machines, Power System Control & Management
• Control Engineering
• Digital Systems
• Bio-Electric Engineering

Graduate Research Fields and Facilities

The Electrical Engineering Department has numerous general and specialized laboratories, as well as extensive facilities devoted to experimental studies and research programs in the areas of Communications, Electronics, Electric Power Engineering, Control Engineering, Digital Systems, and Bio-Electric Engineering. Moreover, the department accommodates three national centers of excellence:

• Center of Excellence for Multi-Access Communication Systems
  Director: Babak Khalaj
  Email: khalaj@sharif.edu

• Center of Excellence in Information Security and Cryptography
  Director: Mohammad Reza Aref
  Email: aref@sharif.edu
  Website: www.ceisc.ee.sharif.edu

• Center of Excellence for Power System Management & Control
  Director: Mehdi Ehsan,
  Email: Ehsan@sharif.edu
  Website: http://ee.sharif.ir/cepsmc/

Career opportunities

A high percentage of the graduates of the Electrical Engineering Department at Sharif University of Technology continue their studies at MSc and PhD levels both inside the country and abroad. Moreover, there are numerous domestic job opportunities in Power Engineering, Communications, and Digital Systems. Sharif’s EE department is well known for its many notable alumni in the academic world and industry, both nationally and internationally.