**MSc degree program in Electrical Engineering**

4 semesters, 120 credits, starts: Spring, valid from 2016

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
<th>Hours/week</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>28</td>
<td>23</td>
<td>Advanced mathematics 2/1/0/m/3, Common subject 3/0/0/m/4, Main specialization subject 2/1/0/e/4, Secondary specialization subject 2/1/0/e/4, Project laboratory 1 0/0/5/m/5</td>
</tr>
<tr>
<td>2nd</td>
<td>33</td>
<td>27</td>
<td>Advanced mathematics 2/1/0/m/3, Photonics Devices 4/0/0/m/4, Main specialization subject 2/1/0/e/4, Main specialization laboratory 0/0/3/m/4, Project laboratory 2 0/0/5/m/5</td>
</tr>
<tr>
<td>3rd</td>
<td>30</td>
<td>21</td>
<td>Physics 3 3/1/0/e/4, Common subject 3/0/0/m/4, Main specialization laboratory 0/0/3/m/4, Secondary specialization lab. 0/0/2/m/2, MSc thesis work 1 0/0/5/m/10</td>
</tr>
<tr>
<td>4th</td>
<td>30</td>
<td>20</td>
<td>Free elective 0/0/0/m/2, Mandatory human &amp; economic science elective 2/0/0/m/2, MSc thesis work 2 0/0/10/m/20</td>
</tr>
</tbody>
</table>

**Publications: power system lab. practices, midterm, classroom, early exams, late homework, homework assignments.**

**Secondary specialization:**

- **1st semester:**
  -Advanced mathematics 2/1/0/m/3
  -Common subject 3/0/0/m/4
  -Main specialization subject 2/1/0/e/4
  -Secondary specialization subject 2/1/0/e/4
  -Project laboratory 1 0/0/5/m/5

- **2nd semester:**
  -Advanced mathematics 2/1/0/m/3
  -Photonics Devices 4/0/0/m/4
  -Main specialization subject 2/1/0/e/4
  -Main specialization laboratory 0/0/3/m/4
  -Project laboratory 2 0/0/5/m/5

- **3rd semester:**
  -Physics 3 3/1/0/e/4
  -Common subject 3/0/0/m/4
  -Main specialization laboratory 0/0/3/m/4
  -Secondary specialization lab. 0/0/2/m/2
  -MSc thesis work 1 0/0/5/m/10

**Smart city**

- Sensor networks and applications 2/1/0/e/4
- Intelligent traffic systems 2/1/0/e/4
- Human-machine interface 2/1/0/e/4
- Smart city laboratory 0/0/2/m/2

**Smart systems integration**

- Circuit environment 2/1/0/e/4
- System level design 2/1/0/e/4
- Fundamentals of smart systems 2/1/0/e/4
- Smart systems design laboratory 0/0/2/m/2

**Common subjects**

- Communication theory 3/0/0/m/4
- Measurement theory 3/0/0/m/4
- Alternating current systems 3/0/0/m/4

**Course evaluation:**

- Oral exam in a discipline seminar lab. in spring
- Oral exam in a discipline seminar lab. in autumn

**ADMISSION INFORMATION:** Application is on-line. Deadline: November 15 (late applications are rejected). Pieces to submit/upload (notarized English translation for official documents):

- Application form
- Proof of English language proficiency (minimal requirements: TOEFL IBT score of 90, PBT score of 550, Cambridge First Certificate "B", IELTS score of 5.0), official transcripts, degrees or diplomas of any higher education already completed; proof of payment of the application fee, curriculum vitae (autobiography/résumé).

**Requirements:**

- TOEFL IBT score of 90, PBT score of 550, Cambridge First Certificate "B", IELTS score of 5.0; official transcripts, degrees or diplomas of any higher education already completed; proof of payment of the application fee, curriculum vitae (autobiography/résumé).

**Other information:**

- Secondary specialization
- Common subject
- Mandatory human & economic science elective
- Main specialization subject
- Project laboratory

**Legend:**

- BME: Budapest University of Technology and Economics
- VIK: BME VIK (Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics)

**Last updated:** 22 August, 2016

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MSc degree program roadmap. See [www.vik.bme.hu/en](http://www.vik.bme.hu/en) for more details and regulations.