Faculty introduction to

**BSc students**

Faculty of Electrical Engineering and Informatics
Budapest University of Technology and Economics

Dr. Eszter Udvary
associate professor
BSc and MSc English program director
Highlights

1. Introduction to the faculty
2. Degree programs
3. Q&A
Faculties of the BME

- Faculty of Civil Engineering (1782)
- Faculty of Mechanical Engineering (1871)
- Faculty of Architecture (1873)
- Faculty of Chemical Engineering (1873)
- Faculty of Electrical Engineering and Informatics (1949)
- Faculty of Transportation Engineering (1951)
- Faculty of Natural Sciences (1987)
- Faculty of Economic and Social Sciences (1998)
Departments at the faculty

- Department of Automation and Applied Informatics
- Department of Broadband Infocommunications and Electromagnetic Theory
- Department of Computer Science and Information Theory
- Department of Control Engineering and Information Technology
- Department of Electric Power Engineering
- Department of Electron Devices
- Department of Electronics Technology
- Department of Measurement and Information Systems
- Department of Networked Systems and Services
- Department of Telecommunications and Media Informatics
Faculty buildings
Faculty buildings: I
Faculty buildings: Q
Faculty buildings: V1
Degree programs in English

- Electrical Engineering (BSc) – 7 semesters
- Computer Engineering (BSc) – 7 semesters
- Electrical Engineering (MSc) – 4 semesters
- Computer Engineering (MSc) – 4 semesters
- Electrical Engineering (PhD) – 8 semesters
- Computer Engineering (PhD) – 8 semesters
Curriculum - Electrical Engineering (BSc)

- 7 semesters, 210 credits (ECTS)
- Three study specialization blocks:
  - Embedded and Controller Systems
  - Infocommunication Systems
  - Sustainable Electric Energetics
Curriculum - Computer Engineering (BSc)

- 7 semesters, 210 credits (ECTS)
- Two study specialization blocks:
  - Infocommunications
  - Software Engineering
European Credit Transfer and Accumulation System (ECTS)

• It helps students to move between countries and to have their academic qualifications and study periods abroad recognised
• It enhances the flexibility of study programmes for students
• ECTS credits represent learning based on defined learning outcomes and their associated workload.
• 1 credit ≈ 30 workhours
Workload

• 1 semester = 20 weeks
  – 1 week registration period
  – 14 weeks study period
  – 1 week recap period
  – 4 weeks exam period
• 900 workhours / semester
  – 30 credits / semester
  – 30 workhours / credits
• 45 workhours / week (5 days)
  => 9 hours / day => full time study
• 25-30 contact hours / week
## Subjects

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>Mid-term Assessments</th>
<th>End of the study period</th>
<th>Exam period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam</td>
<td>Mid-semester test</td>
<td>Signature</td>
<td>Exam</td>
</tr>
<tr>
<td></td>
<td>Mid-semester exam</td>
<td></td>
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<tr>
<td></td>
<td>Homework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-semester mark</td>
<td>Mid-semester test</td>
<td>Grade (based on the mid-semester results)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Mid-semester exam</td>
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<tr>
<td></td>
<td>Homework</td>
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<tr>
<td></td>
<td>Laboratory course</td>
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</tr>
</tbody>
</table>

- Subjects – with few exceptions – are only announced once a year, either in the spring or in the fall semester!
- Please handle the subject based on neptun ID (NOT title)
### Courses

<table>
<thead>
<tr>
<th>type</th>
<th>Attendance requirement</th>
<th>note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Max. 70%</td>
<td>If it is in the subject description</td>
</tr>
<tr>
<td>Practice</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td>100%</td>
<td>Attendance is compulsory</td>
</tr>
<tr>
<td>exam</td>
<td>-</td>
<td>a course without contact hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- comprehensive exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If you have signature, but you did not get grade =&gt; you have to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>repeat the examination in the next exam period</td>
</tr>
</tbody>
</table>

BME expects students to attend the lectures
Contacts

- For issues related to the administration of your studies you always have to turn Ms. Margit Nagy (Electrical Engineering) or Ms. Violetta Máté (Computer Engineering)
  - location: building R, ground floor
  - phone: +36-1-463-1111 / ext. 4609
  - e-mail: nagy.margit@kth.bme.hu and mate.violetta@kth.bme.hu
  - office hours from 3rd September: Mon-Thur 12:00-15:30, Fri 8:30-12:00

- For issues related to your studies, scholarship, and personal life, you should turn to Ms. Nóra Demeter in the first place (location: building Q, room No. BF05 (ground floor); phone: +36-1-463-1608; e-mail: demeter.nora@vik-dh.bme.hu; office hours: Mon, Wed, Fri 11:00-15:00)

- The program director of BSc and MSc studies is Ms. Eszter Udvary (location: Building V1, Room No: 214, e-mail: udvary@hvt.bme.hu, official hours: Wednesday 12.30 – 14.00)
Basic rule of administration

It is strictly forbidden to bypass the chain of hierarchy detailed above and to directly communicate to the rector/dean or any other university personnel without notifying the persons listed above. The violation of this rule will entail disciplinary measures !!!
When you contact anyone...

- Please explain
  - Your name and your Neptun ID
  - Your program (BSc/MSc/PhD, Electrical Engineering/Computer Engineering)
  - Your semester
  - Details of your problem
    - Who, what subject, when, why, what did happen...
  - Print screen (if you have problem with Neptun or other electronic system)
On-line study system in English

- you must use the electronic study system NEPTUN to handle all of your administration (https://frame.neptun.bme.hu/hallgatoi/login.aspx)
- All information can be found at the website vik.bme.hu/en
For Current Students
B.Sc. Programs (Current)

Electrical Engineering (program description, simplified roadmap, prerequisites)

Computer Engineering (program description, simplified roadmap, prerequisites)

Being specialized within the faculty gives students the opportunity to be prepared to do creative engineering work.

Main training areas (210 credits)

<table>
<thead>
<tr>
<th>Area</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural science fundamentals</td>
<td>40-50 credits</td>
</tr>
<tr>
<td>Economics and humanities</td>
<td>14-30 credits</td>
</tr>
<tr>
<td>Professional core material</td>
<td>70-105 credits</td>
</tr>
<tr>
<td>Specific professional knowledge</td>
<td>min. 40 credits</td>
</tr>
<tr>
<td>Free electives</td>
<td>min. 10 credits</td>
</tr>
</tbody>
</table>

BSc Electrical Engineering curriculum

<table>
<thead>
<tr>
<th>1st semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credits</strong></td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>6</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
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<tr>
<td>6</td>
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<tr>
<td>7</td>
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<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credits</strong></td>
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<tr>
<td>--------------</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>6</td>
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<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>
Electrical Engineering

Mandatory course list!

- TE90AX00 Mathematics A1 => „VIK” courses! **EN0-VIK and EN1-VIK**
- TE11AX21 Physics 1
- VISZAA05 Foundation of computer science
- VIIIAA04 Digital design 1
- **VIHIAA01** Basics of programming 1
- GT63EEI1 English for Electrical Engineering and Informatics 1 => you are already registered

Please register based on the neptun ID of the subject!

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Computer Engineering

Mandatory course list!

- TE90AX21 Calculus 1 for informaticians
- TE11AX23 Physics 1i
- VISZAA03 Introduction to the theory of computing 1
- VIMIAA02 Digital design
- VIEEAA00 Basics of programming 1
- GT63EEI1 English for Electrical Engineering and Informatics 1 => you are already registered

Please register based on the neptun ID of the subject!

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Prerequisites: to make sure that each course provides you with knowledge which have sound foundations established by previous courses.
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BSc - Milestones

- Conditions for admission to the study specialization block
- Conditions for admission to the thesis defense session
Specializations

- Specializations start every fall semester
- The selection of specialization is always at the end of the 4th semester
- The number of students must exceed a certain threshold
- The decision on the type of specialization and the placement of students depends on the number and the results of applying students
- Not all specializations start every year
# Academic Calendar

ACADEMIC CALENDAR for 2019/2020
BME
Faculty of Electrical Engineering and Informatics (VIK)

## Autumn semester

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration period</td>
<td>2 – 6 September 2019</td>
</tr>
<tr>
<td>Study period</td>
<td>9 September – 13 December 2019</td>
</tr>
<tr>
<td>Grace period to fulfil course requirements</td>
<td>16 – 20 December 2019</td>
</tr>
<tr>
<td>Exam period</td>
<td>2 – 29 January 2020</td>
</tr>
<tr>
<td>Final exam period</td>
<td>2 – 31 January 2020</td>
</tr>
<tr>
<td>Graduation ceremony for international students</td>
<td>TBD (early February)</td>
</tr>
</tbody>
</table>

**Days off (no classes, tests or exams):**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Sports Day</td>
<td>12 September 2019 (Thu)</td>
</tr>
<tr>
<td>Faculty Days (Schönherz Cup)</td>
<td>30 September – 1 October 2019 (Mon-Tue)</td>
</tr>
<tr>
<td>National holiday (commemoration of the Revolution of 1956)</td>
<td>23 October 2019 (Wed)</td>
</tr>
<tr>
<td>National holiday (All Saints’ Day)</td>
<td>1 November 2019 (Fri)</td>
</tr>
<tr>
<td>Students’ Scientific Conference (“TDK”)</td>
<td>12 November 2019 (Tue)</td>
</tr>
<tr>
<td>Open Day for secondary-school students</td>
<td>29 November 2019 (Fri)</td>
</tr>
<tr>
<td>Winter holidays (incl. Christmas &amp; New Year’s Eve)</td>
<td>23 December 2019 – 1 January 2020</td>
</tr>
</tbody>
</table>

**Make-up Saturdays** (for national, non-holiday days off):

- Regular classes with even-week Friday schedule: 7 December 2019
- Extra day of grace period (for in-class test retakes): 14 December 2019
These documents are for information purposes only!
## Subject description

**Foundation of Computer Science**

**Title**

Electrical Engineering

**Course ID**

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Semester</th>
<th>Assessment</th>
<th>Credit</th>
<th>Tantárgyfélév</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISZAA05</td>
<td>2/2/0/n</td>
<td>5</td>
<td></td>
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</tr>
</tbody>
</table>

**Course coordinator and department**

- Dr. Katona Gyula, Számítástudományi és Információelméleti Tanszék

**Web page of the course**

http://www.cs.bme.hu/sza

**Instructors**

- Dr. Attila Sai, associate professor, Department of Computer Science and Information Theory

**Pre-requisites**
Assessment timetable

These documents are for information purposes only!

<table>
<thead>
<tr>
<th>Week</th>
<th>1st Year</th>
<th>2nd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
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<td>5th</td>
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<tr>
<td>6th</td>
<td>mid-term</td>
<td>mid-term</td>
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<tr>
<td></td>
<td>Mathematics A1</td>
<td>Electronics Technology</td>
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<tr>
<td>7th</td>
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<td>Home</td>
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<td></td>
<td></td>
<td>Signals and</td>
</tr>
<tr>
<td>8th</td>
<td>mid-term</td>
<td>retake mid-term</td>
</tr>
<tr>
<td></td>
<td>Basics of programming 1</td>
<td>Electrote</td>
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<tr>
<td></td>
<td></td>
<td>Signals and</td>
</tr>
</tbody>
</table>
Your life is changed
Be careful

• New city, new country, new classmates, without family...
• You have to manage your life (accommodation, residence permit, offices, living cost, ...)
• Secondary school => university
  - Difficult subject, hard assessments
  - There is no continuous monitoring
  - misunderstood freedom
    If you do not start learning at the beginning
    ⇒ You will have too much tasks at the end of the semester
    ⇒ You can not fulfil the subjects
    ⇒ You can not register for further subjects in the next semester (because of the pre-requisites)
    ⇒ ...

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BME Villamosmérnöki és Informatikai Kar
Focus on your study!

- There is no way to grant exemptions from the
  - pre-requisite rules
  - conditions for admission to the BSc specializations
  - conditions for admission to thesis defense session

- The number of credit points to be accumulated, the grade point average to achieve, the number of recaps are controlled. Failing to satisfy those rules, you are dismissed from your studies.
  - twice the programme duration
  - min. 20 credits / the latest 3 active semesters
  - BSc: cumulated GPA of min. 2.25 at the end of the 4th active semester
  - max. 6 exams/subject

- Plagiarism and cheating: zero tolerance!
  - At least fail of the subject in the given semester (both copying and copied students)
Tuition fee

• If you have no scholarship...

<table>
<thead>
<tr>
<th></th>
<th>For non-EU citizens</th>
<th>For EU citizens</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc program</td>
<td>3200EUR/semester</td>
<td>2250EUR/semester</td>
</tr>
</tbody>
</table>

• Stipendium Hungaricum Scholarship
  – max. 2 semesters extension
  – min. 36 credits / the latest 2 active semesters (decision of the Tempus foundation)

• Delay in the study program
  – Time, money, etc.
  – Residence permit...
Credit transfer

- You can transfer your previously obtained credits to BME.

Requirement/Rules:
  - The transferred subject needs to match with the BME subject at least in 70%.
  - The deadline is the 4th week of each semester.

Process:
  - Submit the E024 request in the Neptun system
  - Submit your transcript as well.
  - Submit the official description (in English!) of the transferred subject as well.
  - You will get the FINAL decision in 2-5 days. (No more negotiations later!)
Student life ⇔ Study
Thank you for your attention !