



# Budapest University of Technology and Economics





## ***Research Activities***

The Budapest University of Technology and Economics regards the further strengthening of the research nature of the university, and the broadening and wider application of scientific knowledge, as missions which are inseparable from its teaching activities. The success of this idea is well illustrated by the fact that the university occupies first place among higher education institutions according to Ministry of Education assessments conducted in line with strict norms of evaluation, and has done so for a number of years consecutively. The relatively high number of applications for special programmes, both within Hungary and abroad, and the financial resources which they provide every year - even though these are not unlimited - provide the necessary minimum financial conditions for the continuation of the university's research work which it cannot guarantee from other sources.

It is particularly significant that our researchers have been able to actively and successfully engage in the preparation work required for the international coordination which is an essential part of the EU's 5th and 6th Framework Programmes. These programmes have a duration of 3 years and operate in the same way as international consortia. The BUTE's teams of researchers generally participate in the programmes as consortium members, although the university is currently project leader in the case of two thematic programmes.

The other positive effect of international programmes is an ever-broadening scientific cooperation which has its roots deep in the past but which has only actively become part of everyday life in the university during recent years.

## ***Connections with Industry***

The Budapest University of Technology and Economics has a considerable tradition of cooperation with industry in terms of Research and Development. These connections have helped the university's R & D units to make worthwhile use of the knowledge accumulated by the university community, and to expand the practical knowledge which is indispensable in technical fields. It is the university's firm intention to increase the practical application of its marketable intellectual assets by actively seeking potential customers.

An increasing number of large Hungarian and multinational companies are concluding contracts of several years' duration with the university, and in some cases are establishing well-equipped laboratories on the campus which not only enable the research stipulated in the contract to be completed but also allow those outstanding students who have begun doctoral programmes to pursue their own research.

## ***International Connections***

The past few years have seen a further strengthening of the university's international connections. The recognition accorded to the institution is attested to by the fact that programmes arranged by international organisations have become a regular part of the university's life. Since 2001, the university has been a member of the governing body of the CESAEEER organisation, which is made up of the 45 elite European institutions involved in the training of engineers.

The university has contractual arrangements with more than 120 universities in 39 countries. Among its European partners, mention should be made of the technical universities of Karlsruhe, Munich, Vienna, Graz, Delft and Krakow; Heriot-Watt University, which funds the English-language MBA course; ETH Zurich, and the University of Bologna. In the case of universities in the USA, the emphasis is on individual departments, instructors and researchers cooperating on joint programmes, rather than the kinds of arrangements which are usual between European universities. Prominent among our Far-Eastern connections are the BUTE's English-medium teaching department to be established in Hanoi in 2003, and an agreement with one of the most prestigious private universities in Japan, the University of Waseda.

BUTE has also established partnerships with 142 universities in 17 countries as part of the Socrates / Erasmus programme to encourage student and teacher mobility.





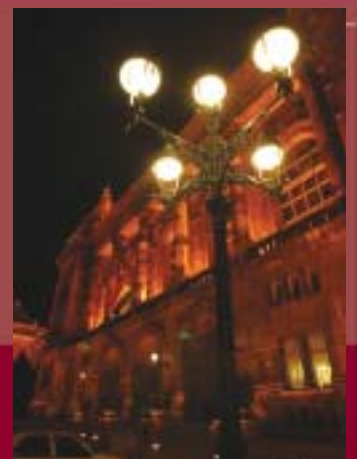
## ***Educational Provision***

The Budapest University of Technology and Economics (BUTE) enjoys an excellent reputation both in Hungary and abroad and has, throughout the more than two hundred years of its existence, retained close links with the economy. We see it as our task to provide a high standard of education, specialist training, research and technical development at every level which rests on a firm foundation of basic training. The result of our efforts is that we have long occupied a leading position in the training of Hungary's engineers and in her technical development. Central to our objectives for the future is the securing of our reputation for both teaching and research & development.

Paying heed to the requirements both of tradition and of expectations, our vision of the university's future is as an active, prestigious centre of learning in Europe, in which the teaching is characterised by variety in terms of content (covering the fields of technology, the natural sciences and economics), level and language. The development of new, quality connections within the university and among its students is continuing, and a high standard of educational provision for our large number of students is maintained alongside specialist training and further education activities, together with the extensive development of information and communications technology. The flexible education structure makes possible simultaneous participation in educational competition and networked cooperation projects.

The Budapest University of Technology and Economics currently teaches more than 23,000 students in 8 faculties, 19 university departments, 13 doctorate schools and 1 masters' school, and offers further specialist training in more than 40 fields. The teaching takes place in five languages, and the degrees awarded fulfil the basic accreditation criteria of European engineering set by the FEANI association. The university has begun preparations for the conversion to the two-tier degree structure known as the Bologna process.

A number of courses taught at BUTE have been classified as "excellent" by the Hungarian Accreditation Committee.



# Courses in Contemporary

## Faculty of Civil Engineering

1782



[www.bme.hu](http://www.bme.hu)

Dean's Office: Building K, 1st floor, rm. 16

Tel.: 463-3531

E-mail: [epitohivatal@mail.bme.hu](mailto:epitohivatal@mail.bme.hu)

### Core Subjects:

#### Civil Engineering

- Building Construction
- Engineering and Architecture
- Bridges and Structures
- Construction Management
- Geotechnics
- Transportation Infrastructures
- Hydraulic Engineering
- Urban Engineering
- Environmental Engineering

#### Surveying and Geographic Information System

- Geodetics in the Construction Industry
- Land Informatics
- Geodetical Basic Networks

### Specialist Courses:

- The Construction Industry and the Law
- Land Informatics
- Geotechnics
- Property Consultancy
- Transportation Engineering
- Structural Engineering
- Hydraulic Engineering

### Doctorate Schools:

- Civil Engineering Sciences
- Earth Sciences



## Faculty of Mechanical Engineering

1871



[www.gepesz.bme.hu](http://www.gepesz.bme.hu)

Dean's Office: Building K, 1st floor, rm. 14

Tel.: 463-3541

E-mail: [gepeszd@mail.bme.hu](mailto:gepeszd@mail.bme.hu)



### Core Subjects:

#### Mechanical Engineering (university level)

- Machine Design, Precision Engineering/Optics, Agricultural Machine Design, Mechanical Electronics, Product Design, Heat Engines, Energy, Building Engineering, Chemical and Food Engineering, Machine Manufacturing Technology, Materials Technology, Polymer Engineering, Robot Technology, Mechatronics, Engineering Informatics, Applied Mechanics, Manufacturing Automation, Environmental Technology, Medical Technology, Fluid Mechanics, Environmental Technology Management, Integrated Engineering.

#### Mechanical Engineering (college level)

- Environmental Technology
- Mechatronics
- Chemical and Food Industry
- Manufacturing Technology & Informatics

#### Energetic Engineering (university/college level)

- Industrial Product and Design Engineering (university level)
- Energetic Engineering Assistants
- Chemical Industry Mechanical Engineering Assistants

### Specialist Courses:

- Welding
- Technology Management
- Energy Management (college level)

### Doctorate Schools:

- Mechanical Engineering Sciences

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## Faculty of Architecture

1873



[www.epitesz.bme.hu](http://www.epitesz.bme.hu)

Dean's Office: Building K, 1st floor, rm. 10/a

Tel.: 463-3521

E-mail: [dekanihivatal@eszk.bme.hu](mailto:dekanihivatal@eszk.bme.hu)

### *Core Subjects:*

#### Architecture

Studies in Architecture  
Structural Studies  
Urbanistics  
Architectural Design  
Urban Design  
Structural Design  
Architectural Management



### *Specialist Courses:*

Building Insulation  
Protection of Historic Buildings  
Rehabilitation Engineering  
Colour Dynamics  
Town Planning and Urban Design  
Construction Engineer - Economist

### *Doctorate Schools:*

Science of Architecture  
Building Sciences



## Faculty of Chemical Engineering

1873



[www.ch.bme.hu](http://www.ch.bme.hu)

Dean's Office: Building K, 1st floor, rm. 9/b

Tel.: 463-3571

E-mail: [dekan@mail.bme.hu](mailto:dekan@mail.bme.hu)

### *Core Subjects:*

#### Bioengineering

Applied Biotechnology  
Health Care  
Food Analysis and Food Technology  
Environmental Protection

#### Chemical Engineering

Analytical and Structural Chemistry  
General Chemical Industry and Process Engineering  
Pharmaceutical Industry  
Studies in Plastics, Textiles and Materials

#### Environmental Engineering

Environmental Technology  
Environmental Management

### *Specialist Courses:*

Analytical Chemistry  
Food Analysis  
Corrosion  
Environmental Protection  
Pharmaceutical Industry

### *Doctorate Schools:*

Studies in Chemistry  
Studies in Chemical Engineering



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## Faculty of Electrical Engineering and Informatics

1949



[www.vdk.bme.hu](http://www.vdk.bme.hu)

Dean's Office: Building V1, ground floor

Tel.: 463-3581

E-mail: [vikdhvez@vdk.bme.hu](mailto:vikdhvez@vdk.bme.hu)

### Core Subjects:

#### Informatics

- Techniques and Tools in Informatics
- Systems Development
- Informatics Infrastructure Design
- Network Design
- Mobile Computer Technology
- IP-based Telecommunications
- Infocommunications Services
- Information Technology of Autonomous Systems
- Integrated Intelligent Systems
- Commercial Informatics
- Integrated Corporate Management Systems

#### Electrical Engineering

- Embedded Information Systems
- Energy Conversion Systems
- Information Technology
- Control Engineering and Robotics Informatics
- Microsystems and Module Circuits
- Technology of Computer Systems and Applications
- Telecommunications and Telematics
- Electrical Energy Systems
- Informatics for Economics



### Specialist Courses:

- Development and Manufacture of Light Sources
- Informatics of Control Engineering
- Electrical Machines and Propulsion

### Doctorate Schools:

- Studies in Electrical Engineering
- Studies in Informatics

## Faculty of Transportation Engineering

1951



[www.kozlek.bme.hu](http://www.kozlek.bme.hu)

Dean's Office: Building Z, 3rd floor, rm. 310

Tel.: 463-3551

E-mail: [felv@kma.bme.hu](mailto:felv@kma.bme.hu)

### Core Subjects:

#### Transportation Engineering

- Road Transportation
- Rail Transportation
- Water Transportation
- Air Transportation
- Industrial and Delivery Logistics

#### Mechanical Engineering

- Automotive Engineering
- Rail Vehicle Engineering
- Naval Architect Engineering
- Aircraft Engineering
- Materials Handling Machines and Manufacturing Logistic
- Building Machinery and Building Processes
- Vehicle Manufacturing and Repair

### Doctorate Schools:

- Studies in Transport Science
- Multidisciplinary Studies (Vehicles and Mobile Machines)



### Specialist Courses:

- Material Transport
- Building Mechanisation
- Vehicle Manufacture Design
- Vehicle Technology Management
- Vehicle Servicing and Maintenance
- Transport Management
- Transport Technology as a Profession
- Labour Safety
- Technical Diagnostics
- Operational Logistics

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## Faculty of Natural Sciences

1987



[www.ttk.bme.hu](http://www.ttk.bme.hu)

Dean's Office: Building K, 1st floor, rm. 56

Tel.: 463-3561

E-mail: [ttk-dekani@ttdh.bme.hu](mailto:ttk-dekani@ttdh.bme.hu)

### Core Subjects:

#### Mathematics

Algebra and its Applications  
Analysis and its Applications  
Operations Research and Applications  
Stochastics

#### Engineering and Physics

Materials Science  
Physics of Condensed Materials  
Nuclear Technology  
Optics



### Specialist Courses:

Reactor Technology

### Doctorate Schools:

Studies in Mathematics and Computer Science  
Studies in Physics

## Faculty of Economics and Social Sciences

1998



[www.gtk.bme.hu](http://www.gtk.bme.hu)

Dean's Office: Building K, 1st floor, rm. 58

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E-mail: [gtk-dekani@gtdh.bme.hu](mailto:gtk-dekani@gtdh.bme.hu)



### Specialist Courses

Informatics for Banking  
Master of Business Administration  
Management  
Quality Management  
Specialist Translation and Interpreting  
Industrial & Organisation Psychology  
Training School Managers  
Finance, Tax, Duty, Customs  
Business Law  
Media Planner  
Environmental Managers  
Economics of Administration

### Core Subjects:

#### Engineering Management

EU Studies  
Information Management  
Environment Management  
Quality and Technology Management  
Product Management  
Finance Management

#### Professional Training in Technology

#### Economics Management

Organisation & Control of Production; Logistics  
Telecommunications & Telematics  
Regional Development and The Development of Settlements  
Foreign Economics  
Management of Energy Sources and the Environment  
Taxation and Social Security

#### Technical Education

#### Assistant Management of Logistics and Technology

### Doctorate Schools:

Studies in Management and Organisations  
History of Technology, Engineering and Science  
Methodology of Technical Education

**Rector's Office**

Building 'K', 1st floor, rm. 2  
 tel.: (36-1) 463-2221  
 fax: (36-1) 463-2220

**Department of Education**

Building 'K', 1st floor, rm. 7  
 tel.: (36-1) 463-2261  
 fax: (36-1) 463-2260

**Department of Research and International Relations**

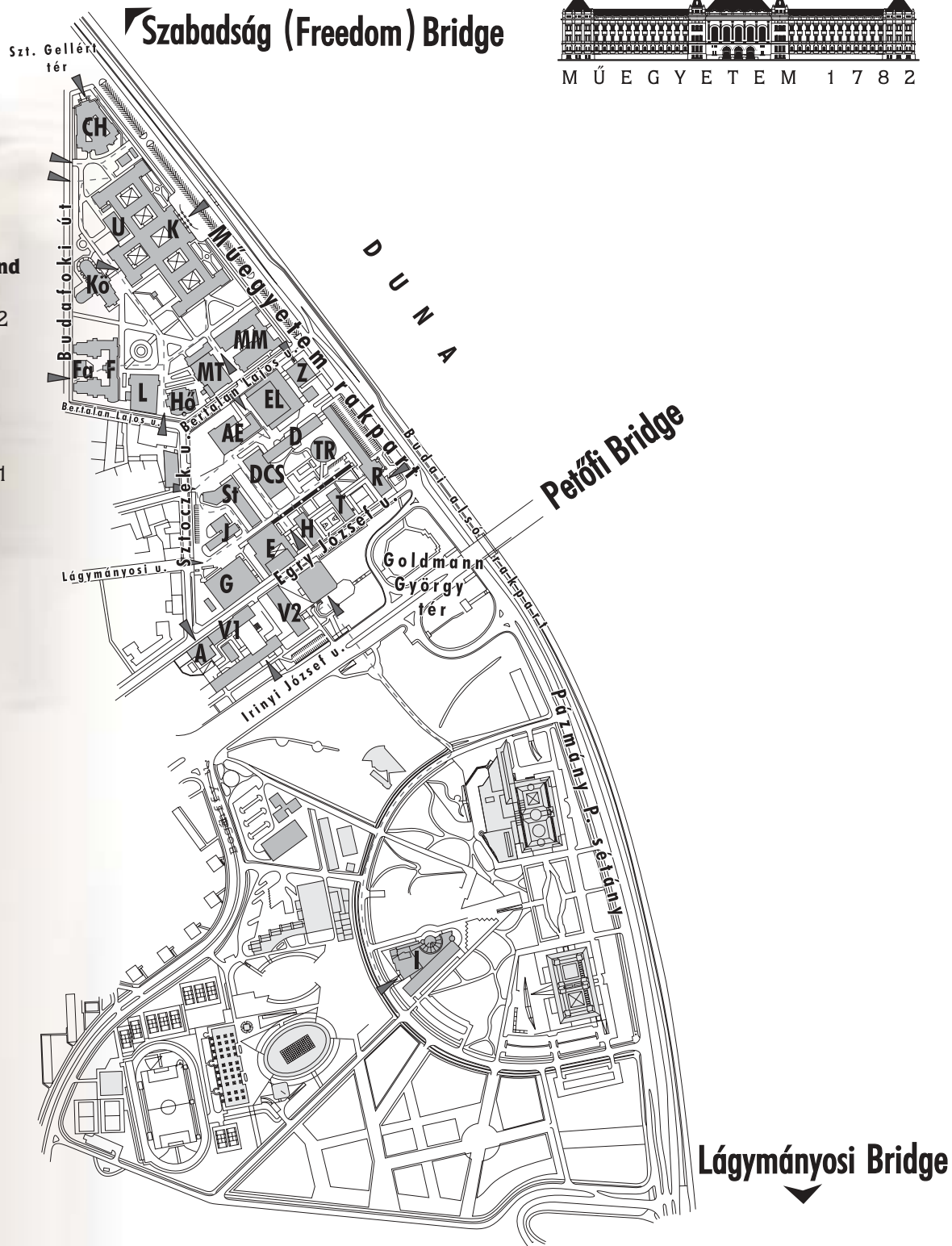
Building 'K', 1st floor, rm. 42  
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**Department of Strategic Affairs**

Building 'K', 1st floor, rm. 61  
 tel.: (36-1) 463-2281  
 fax: (36-1) 463-2280

**General Economic and Technical Directorate**

Building 'A', 5th floor  
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 fax: (36-1) 463-3330



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