MŰEGYETEM 1782

BME - VIK

DEPARTMENT OF TELECOMMUNICATIONS AND MEDIA INFORMATICS

COMPUTER SCIENCE ENGINEERING MSC

INTERNET ARCHITECTURE AND SERVICES SPECIALIZATION

- WHAT IS IT ABOUT?
- WHY TO CHOOSE?
- SPECIALIZATION COURSES AND HEAD OF SPECIALIZATION
- SPECIALIZATION LABORATORY
- SECONDARY SPECIALIZATION RECOMMENDER
- PROJECT LABORATORY AND THESIS TOPICS
- INDUSTRIAL PARTNERS
- RELATED PHD PROGRAM

DEPARTMENT OF TELECOMMUNICATIONS AND MEDIA INFORMATICS

What is it about?

The Internet is the most extensive technological creation on Earth, the common platform for almost all IT applications. It is a network having a significant impact on all areas of our lives: serving data centers, cloud services, and connecting and managing billions of human and machine endpoints.

Why to choose?

Students of the specialization can become Internet architects.

YOU WILL UNDERSTAND THE STRUCTURE AND OPERATION OF THE INTERNET ...
... that is, you will have deep expertise in the most defining technical field of our time.

YOU WILL SEE THE PROCESSES OF THE WORLD OF THE INTERNET IN A TREND-LIKE WAY, IN CONTEXT...
... learn about the communication requirements of high-speed vehicle networks or a sensor network with limited resources.

YOU WILL ALSO BE FAMILIAR WITH THE ECONOMIC AND SOCIAL ASPECTS OF THE INTERNET ...
... that is, your worldview will be more complete with respect to the Internet as a global system.

YOU WILL PLAY A CREATIVE ROLE IN THE DEVELOPMENT AND TESTING OF COMPLEX (SOFTWARE) SYSTEMS / SERVICES ...
... that is, you don't just code and debug at BSc level.

YOU WILL BE ABLE TO DESIGN COMPLEX IT SYSTEMS ...
... that is, you'll be able to think at the system level.

YOU WILL BE SUITABLE FOR LEADERSHIP TASKS ...
... that is, you will progress quickly in your workplace thanks to your MSc degree.

Head of Specialization:

Attila Vidács, PhD

Associate Professor
BME-VIK-TMIT
vidacs.attila@vik.bme.hu

INTERNET ECOSYSTEM AND EVOLUTION - Zalán Heszberger

„For IT professionals today, the Internet is the environment in which they work, a thorough knowledge of how it works is inevitable."

CLOUD NETWORKING - Markosz Malios

„We look into the cloud and learn about the wide range of technologies from which this complex IT system is built, focusing on the prominent role of the network."

AGILE NETWORK SERVICE DEPLOYMENT - Gusztáv Adamis

„Familiarize yourself with the latest application development methodology used in the industry!"

INTERNET SERVICES AND APPLICATIONS - Attila Vidács

„You'll be able to create web applications and services - not just in theory!"

MODELING FOR ENGINEERS-FROM THEORY TO PRACTICE - Péter Babarczi

„Be an internet designer! We'll show you how to convert what you have learned in theory into dollars."

INFOCOMMUNICATIONS SERVICES LABORATORY 1 - SÁNDOR SZABÓ (HIT)

„To see things heard in lectures, known in theory, in practice, is one of the beautiful moments of being an engineer; our students can often experience this in the lab."

INFOCOMMUNICATIONS SERVICES LABORATORY 2 - BALÁZS SONKOLY

„To find out, the lectures made sense and you weren't fooled, we try (almost) everything in the lab."

OUR KEY TOPICS WHERE YOU CAN GAIN SPECIFIC PRACTICAL KNOWLEDGE:

- Cloud solutions; real cloud systems
- Development, testing and management of Internet services
- Network implications of Big Data systems and technologies
- Internet routing methods in practice
- Virtualization of virtual networks and network functions
- Software-Defined Networking (SDN)
- Content Centric Networking (CCN)
- Peer-to-Peer systems

DATA AND MEDIA INFORMATICS SECONDARY SPECIALIZATION

Managing the explosively growing amount of data and multimedia content poses great challenges for data analysis and media IT systems design and development professionals. The minor specializes in complex data, text, and media analysis training.

EXCERPTS FROM OUR TOPICS:

Designing and analyzing the Internet of the future; Effective compression of routing tables; Implementing new protocols and algorithms for the Internet of the future for its effective operation; Network services are automatic configuration using SDN technologies; Evolution of large networks; On YouTube examination of the method of data transmission; Examining software defined networks (SDN) - OpenFlow. Internet of Things (IoT), Smart City applications. Context-aware services.

Industrial Partners

AVAYA
vodafone
NOKIA
Group 4 Securicor
AITIA
KFKI
A MAGYAR TELEKOM CSOPORT TAGJA
hp
JUNIPER NETWORKS
ERICSSON
antenna HUNGÁRIA
telenor
invitech SOLUTIONS INVITEL CSOPORT
MTA SZTAKI
T··Systems·
bay
ORACLE

Related PhD Program

DEVELOP YOURSELF FURTHER – DO NOT STOP WHERE OTHERS DO

If you would like to develop yourself further after obtaining your engineering MSc degree, and you are interested in research as well, think about joining our **PhD program**.

HSN Lab offers you an internationally competitive PhD program, with an outstanding success rate. Since the creation of the lab in 1992 **we have witnessed more than 100 PhD defenses**, with the majority of the employees of Ericsson Research Hungary having obtained their PhD in our lab.

The Future Internet Joint Research Group and the Network Softwarization Joint Research Group of **BME and the Hungarian Academy of Sciences** (MTA) are both operating at our department.

Head of Department:

Pál Varga, PhD

Associate Professor
BME - VIK
Department of Telecommunications and Media Informatics

From the scientific approach to the practical applications

INTERNET ARCHITECTURE AND SERVICES

SMART CITY

DEEP LEARNING

ARTIFICIAL INTELLIGENCE

5G

BIG DATA

TMIT Internet of Things Contest

DATA SCIENCE, DATA ANALYSIS

facebook.com/bmetmit

www.tmit.bme.hu

youtube.com/user/bmetmit

www.tmit.bme.hu/specializaciok

1117 Budapest, Magyar tudósok krt. 2. „I" Informatics Building,, B.220