



M Ű E G Y E T E M 1 7 8 2

BME - VIK

DEPARTMENT OF

TELECOMMUNICATIONS AND MEDIA INFORMATICS

BUSINESS INFORMATICS MSc IN ENGLISH

ANALYTICAL BUSINESS INTELLIGENCE SPECIALISATION

WHY BUSINESS INFORMATICS?

STUDY IN ENGLISH

SCOPE OF STUDIES

SPECIALISATION COURSES

PROJECT LABORATORY / DIPLOMA WORK

RELATED PHD PROGRAMME

INDUSTRIAL PARTNERS

INFORMATION ABOUT THE DEPARTMENT



TMIT

DEPARTMENT OF
TELECOMMUNICATIONS
AND MEDIA INFORMATICS

Besides excelling at engineering and natural sciences, and providing degrees in engineering recognised world-wide, BME also has a renowned school of economics. Our industry partners confirm that there is an increasing call for experts with an MSc degree in Business Informatics with specialisation in Analytical Business Intelligence. Multinational companies are striving to establish European education centres which meet their need for highly skilled human resources to support their regional operations.



We intend to build a high quality, internationally recognised MSc program in order to attract some of the best students from all over the world. In today's globalized world, students will have more and more opportunities to spend time abroad either working, studying or both. Completing the program in English would certainly increase the career opportunities of the students.

The MSc degree in Business Informatics with specialisation in Analytical Business Intelligence (MSc in ABI) is a professional degree designed to give students a thorough understanding of the field: the tools and methods of advanced analytics used in business life. It focuses on practice and theory with the goal to provide knowledge that is directly useful in industry positions. It is an integrated, interdisciplinary curriculum consisting of courses developed exclusively for business and industrial applications such as data mining, forecasting, optimization, text and media analytics, databases, data visualization, data privacy and security, and customer analytics. Students gain hands-on experience with the complex tools in actual industry use today.



Specialisation Coordinator:

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The subjects of Business Informatics with specialisation in Analytical Business Intelligence are related to a discipline combining information technology (IT) and informatics as well as business and management concepts. Graduates will be applicable for positions like **information manager, systems analyst, systems designer, project manager, business solutions developer, information system (IS) specialist or consultant** in areas like enterprise resource planning, supply chain management, customer relationship management, or knowledge management. **There are five subjects in the specialisation:**

CUSTOMER ANALYTICS

The course deals with the theoretical aspects and high-level practical knowledge of customer analytics for building customer focused solutions based on customer profitability and relationship management. Students will have a foundation in data mining principles for customer analytics problems; understand an end-to-end customer analytics solution development and implementation process from both a business and analytics perspective.

RISK ANALYSIS AND MANAGEMENT

The course is concerned with the identification, assessment and analysis of different forms of enterprise risk (assessing practical risks and losses). It also focuses on the techniques and strategies of handling, avoiding or mitigating risks.

BUSINESS AND FINANCIAL ANALYTICS

Focus: investment finance. Specific topics include security pricing, risk and return, portfolio theory and derivatives. At the end of the course students will have the skills to tackle real world analytics problems businesses in the investment and credit market frequently face.

TREND ANALYSIS AND VISUALIZATION

The course deals with principles and applications of ARIMA models for time series, mapping thematic models for forecasting issues and their applications, foresight analysis, understanding the role of visualisation and its advantages in data representation.

MEDIA AND TEXT MINING

The course is concerned with introducing the students to the identification, assessment and analysis of intelligent information search and multimedia retrieval systems. It also focuses on content handling techniques, where content may be text, media, or both.



TOPICS OF THE WORKS INCLUDE (BUT ARE NOT LIMITED TO):

- Different types of business analytics: risk analysis, customer analytics, financial analytics.
- Business strategies for the future: forecast, foresight.
- Solutions: market basket analysis, social network, enterprise content categorization.
- Analytic methods for marketing: recommendation systems, social media analysis.

SAMPLE STUDENT ASSIGNMENTS:

- Sentiment analysis and text mining
- Dashboards and other visualisation based reporting
- Forecasts in the book market
- Data mining
- Knowledge management
- Optimisation of industrial problems

RELATED PHD PROGRAMME

MSc studies can be continued as part of our PhD programme, where students may research different topics, e.g., data mining of time series, portfolio optimisation, text mining or credit scoring.

The companies are striving to establish education centres which meet their need for highly skilled human resources. For example, SAS Institute (Statistical Analysis System) company is the major supplier of new generation business intelligence products worldwide. It has a US based education centre in North Carolina State University, where an Institute for Advanced Analytics has been established. Due to cooperation between SAS and BME a similar agreement has been signed between the two institutions making BME a regional education centre. Another request for the English program comes from Morgan Stanley which has R&D centres for analytics and IT in Budapest with international staff.



Winners at the Scientific Student Conference, '19



ACM Sigcomm, Beijing, 2019



IEEE Cloud - Milán, 2019



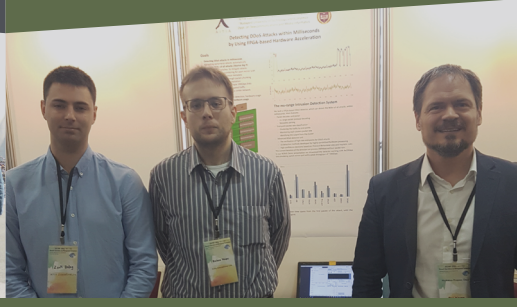
IEEE Infocom - Honolulu, 2018



Interspeech - Graz, 2019



IEEE NOMS conference, Taipei, 2018





Head of Department:

Pál Varga, PhD
Associate Professor



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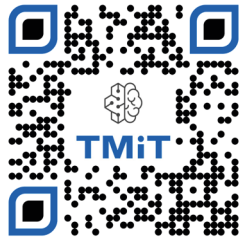
DEPARTMENT OF TELECOMMUNICATIONS AND MEDIA INFORMATICS

DEEP LEARNING

INTERNET ARCHITEKTÚRA ÉS SZOLGÁLTATÁSOK

A TUDOMÁNYOS MEGKÖZELÍTÉSTŐL A GYAKORLATI ALKALMAZÁSIG

SPECIALIZÁCIÓVÁLASZTÓ NYÍLT NAP:
2022.05.09. HÉTFŐ, 16:00-18:00, IB 210



MESTERSÉGES INTELLIGENCIA



BIG DATA

TMIT INTERNET OF THINGS VERSENY

5G

ADATTUDOMÁNY, ADATELEMZÉS



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