

# Tamás Ferenci

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E-MAIL ADDRESS [tamas.ferenci@medstat.hu](mailto:tamas.ferenci@medstat.hu)

DATE AND PLACE OF BIRTH Győr, 23 September 1985

NATIONALITY Hungarian

RESEARCH INTERESTS Biostatistics, critical evaluation of medical studies, statistics, development of teaching material, applied regression, multivariate statistics, machine learnings, econometrics

EDUCATION **Óbuda University**, Budapest, Hungary

PhD, John von Neumann Faculty of Informatics, February 2013 – June 2013

- *Summa cum laude* doctoral (PhD) degree (OE-D-011/2013)
- Title of dissertation: *Two Applications of Biostatistics in the Analysis of Pathophysiological Processes*
- Full time training, with state scholarship (entry result: 100.0%)
- Doctoral topic: *Biostatistical analysis and computer-supported investigation of pathophysiological processes*
- Doctoral advisor: Dr. Levente Kovács

**Budapest University of Technology and Economics**, Budapest, Hungary

PhD, Faculty of Electrical Engineering and Informatics, September 2010 – January 2013

- Full time training, with state scholarship (entry result: 100.0%)
- Doctoral topic: *Biostatistical analysis and computer-supported investigation of pathophysiological processes*
- Doctoral advisor: Dr. Levente Kovács

Applied Mathematics MSc, Faculty of Natural Sciences, September 2010 – June 2013

- University diploma with *honours* (BME-3804/2013)
- Title of university thesis: *The use of Fleishman distribution in the empirical investigation of statistical tests*
- University thesis advisor: Dr. Jenő Reiczigel, Dr. Márton Balázs
- Specialization: stochastics

Biomedical Engineering MSc, Faculty of Electrical Engineering and Informatics, February 2007 – February 2010

- University diploma with *honours* (BME-1248/2010)
- Title of university thesis: *Biostatistical modeling of the parameters of Hungarian children to investigate the effects of obesity* (in Hungarian)
- University thesis advisor: Dr. Levente Kovács

Technical Informatics MSc, Faculty of Electrical Engineering and Informatics, September 2004 – June 2009

- University diploma with *honours* (321/2009)
- Title of university thesis: *Biostatistical analysis of the parameters of Hungarian children related to obesity* (in Hungarian)
- University thesis advisors: Dr. Levente Kovács
- Specialization: Artificial intelligence (integrated intelligent systems)
- Further (voluntarily completed) specialization: Biomedical technology (subspecialization, electrical engineering program)

## Corvinus University of Budapest, Budapest, Hungary

Logistical Management MSc, Faculty of Business Administration, February 2011 – February 2013

- University diploma with good qualification (GTK/M-044/2013)
- Title of university thesis: *Metaheuristics in logistics* (in Hungarian)
- University thesis advisor: Dr. Imre Dobos

Business and Management BA, Faculty of Business Administration, September 2006 – December 2009

- University diploma with *honours* (GTK/B-96/2010)
- Title of university thesis: *Quantitative inventory management models, and their solution with genetic algorithms*
- University thesis advisor: Dr. Imre Dobos
- Specialization: Theory of Management
- Further (voluntarily completed) specialization: Applied statistics (subspecialization, economics program)
- Further (voluntarily completed) specialization: Health economics and technology assessment (subspecialization, economics program)

## Aquincum Institute of Technology, Budapest, Hungary

As a scholarship winner from Budapest University of Technology and Economics, February 2011 – June 2011

- Data Mining, Part 1. (Grade A pass)
- Data Mining, Part 2. (Grade A pass)

## Fazekas Mihály Secondary School, Budapest, Hungary

Secondary school, September 2000 – June 2004

- High-school graduation with *excellent* qualification (B-6/2004)
- Specialization: specialized natural sciences-technical class

TEACHING  
EXPERIENCE

### Senior lecturer

December 2014 –

Physiological Controls Group,  
John von Neumann Faculty of Informatics,  
Óbuda University

- Courses:
  - Introduction to Biomedical Engineering (NIRBE1SVNC, in Hungarian)
    - Participation in delivering lectures (elective course), developing teaching material
  - Biomedical Engineering (NAIBE1SEND)
    - Participation in delivering lectures (elective course), developing teaching material in English
  - Multivariate statistical methods (NAMTS1AAEM)
    - Participation in delivering lectures, practices (for applied mathematics (MSc) students)
  - Queuing Theory (NIRTK1MANM, NIRTKI11TNM, in Hungarian), Security of Information Systems (NIRIB1MANM, in Hungarian), Information Theory and Coding (NAMIK1CANM, in Hungarian)
    - Delivering lectures, practices, developing teaching material etc. in Hungarian
  - Electronics (NAIEL0SEND), Digital Technology (NAIDT0SEND), Information Theory and Coding (NAMIK1CENM), Digital Systems (NAIDR0SEND)
    - Delivering lectures, practices, developing teaching material etc. in English

**Assistant lecturer**

September 2013 – November 2014

Physiological Controls Group,  
John von Neumann Faculty of Informatics,  
Óbuda University

- Courses:
  - Introduction to Biomedical Engineering (NIRBE1SVNC, in Hungarian)
    - Participation in delivering lectures (elective course), developing teaching material
  - Biomedical Engineering (NAIBE1SEND)
    - Participation in delivering lectures (elective course), developing teaching material in English
  - Queuing Theory (NIRTK1MANM, NIRTKI11TNM, in Hungarian), Security of Information Systems (NIRIB1MANM, in Hungarian), Information Theory and Coding (NAMIK1CANM, in Hungarian), Digital Technology (NAIDT0SAND, in Hungarian)
    - Delivering lectures, practices, developing teaching material etc. in Hungarian
  - Electronics (NAIEL0SEND), Digital Technology (NAIDT0SEND), Information Theory and Coding (NAMIK1CENM), Digital Systems (NAIDR0SEND)
    - Delivering lectures, practices, developing teaching material etc. in English

**Visiting lecturer**

September 2010 –

Department of Statistics,  
Faculty of Economics,  
Corvinus University of Budapest

- Courses:
  - Econometrics (4MK24NAK01M, in Hungarian)
    - Delivering lectures (for Finance MSc students), developing teaching material
  - Introduction to Econometrics (4ST14NAK06B, in Hungarian)
    - Delivering lectures, practices (for applied economics BSc students), developing teaching material
  - Introduction to Econometrics (4ST11NAK11B, in Hungarian)
    - Delivering lectures, practices (for business and management BA students), developing teaching material
  - Survey methods (4ST14EAK18M, in Hungarian)
    - Delivering lectures (for international economy and management MA students), developing teaching material

**Visiting lecturer**

September 2014 –

Mathematical Institute,  
Budapest University of Technology and Economics

- Course
  - Mathematics L3c – Mathematical statistics (BMETE90AX19)
    - Delivering lecture, practice (for chemical engineering BSc students)
  - Statistics and Design of Experiment (BMETE92MC20)
    - Delivering lecture, practice (for cognitive sciences MSc students), developing teaching material

**Demonstrator**

September 2009 – June 2010

Department of Statistics,  
Faculty of Economics,  
Corvinus University of Budapest

- Courses:
  - Introduction to Econometrics (4ST11NAK14B, in Hungarian)
    - Delivering lecture (for economics MSc students)

- [Statistics II](#). (4ST14NAK05B, in Hungarian)
  - Delivering practice (for applied economics BA and finance accounting BA students)

**Demonstrator** September 2005 – June 2006

Department of Automation and Applied Informatics,  
Faculty of Electrical Engineering and Informatics,  
Budapest University of Technology and Economics

- Oktatott tárgyak
  - Basics of Programming (C++) (BMEVIEE1240, in Hungarian)
  - Delivering practice (for electrical engineering and informatics students)

COURSES IN  
COLLEGES FOR  
ADVANCED STUDIES

- University of Miskolc, Hantos Elemér College for Advanced Studies (Stochastic time series analysis)
- Széchenyi István College for Advanced Studies (Stochastic time series analysis)
- Corvinus University of Budapest, Society of Young Autonomous Economists (Advanced econometrics)
- Budapest University of Technology and Economics, Liska Tibor College for Advanced Studies (Cross-sectional econometrics)
- Corvinus University of Budapest, College for Advanced Financial Studies (Introduction to econometrics)

PUBLICATIONS

Publication list in [MTMT publication database](#)

MOST IMPORTANT  
PUBLICATIONS

Ferenci Tamás: About vaccines – based on facts (in Hungarian). Medicina Publishing House, 2014. 375 p.

Kolossváry E, Ferenci T, Kováts T, Kovács L, Járai Z, Menyhei G, Farkas K. Trends in Major Lower Limb Amputation Related to Peripheral Arterial Disease in Hungary: A Nationwide Study (2004-2012). *Eur J Vasc Endovasc Surg.* 2015 Jul;50(1):78-85.

Ferenci T, Benyó B, Kovács L, Fisk L, Shaw GM, Chase JG. Daily evolution of insulin sensitivity variability with respect to diagnosis in the critically ill. *PLoS One.* 2013;8(2):e57119.

Ferenci T, Körner A, Kovács L. The interrelationship of HbA1c and real-time continuous glucose monitoring in children with type 1 diabetes. *Diabetes Res Clin Pract.* 2015 Apr;108(1):38-44.

Tamás Ferenci, Balázs Kotosz: Using Massively Parallel Processing in the Testing of the Robustness of Statistical Tests with Monte Carlo Simulation. In: *Proceedings of the Challenges for Analysis of the Economy, the Businesses, and Social Progress International Scientific Conference*, ISBN 978-963-06-9558-9, pp. 1343-1366.

THESIS ADVISOR  
ACTIVITIES

- *University diploma*: Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics; Corvinus University of Budapest, Faculty of Business Administration; Óbuda University, John von Neumann Faculty of Informatics
- *Students' Scientific Association*: Corvinus University of Budapest, Faculty of Business Administration: 2 papers (university 3<sup>rd</sup> place and national 1<sup>th</sup> place, university 1<sup>th</sup> place)

REVIEWING  
ACTIVITIES

- *University diploma*: Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics

- *Students' Scientific Association*: Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics; Óbuda University, John von Neumann Faculty of Informatics
- *Conference*: ICCC, CINTI
- *Journal*: Computer Methods and Programs in Biomedicine, Acta Polytechnica Hungarica

#### AWARDS

John von Neumann Faculty of Informatics,  
Óbuda University

- John von Neumann Publication Award, 2015 ("in recognition of his outstanding publication activity")

Scientific Committee of the 191<sup>th</sup> Conference on Vaccines

- Nyerges Gábor Award, 2013 ("in recognition of his outstanding work on vaccines")

Clinical Biostatistical Society

- Young Biostatistician of the Year, 2011

Department of Statistics,  
Faculty of Economics,  
Corvinus University of Budapest

- Mundruczó György Award, 2010 ("in recognition of his outstanding professional activity and activity as a demonstrator at the Department of Statistics")

Hungarian Central Statistics Office,  
Hungarian Statistical Society,  
Statistical Committee of the Hungarian Academy of Sciences

- Competition at the World Statistics Day (university diploma category): 1<sup>th</sup> place, 2010

Conference of the Students' Scientific Association

- National 1<sup>th</sup> place (2011, Economics Section)
- University 1<sup>th</sup> place (2009, Corvinus University of Budapest, Statistics and Econometrics Section)
- University 2<sup>nd</sup> place (2009, Budapest University of Technology and Economics, Biomedical Engineering and Signal Processing Section)
- Paper accepted for presentation (2009, 2010, Semmelweis University)

#### OTHER AWARDS

- *Kalmár László Applied Informatics Competition*: national 1<sup>th</sup> place, 2003
- *„Nyelvünkben élünk” Hungarian communication competition*: national 1<sup>th</sup> place, 1999
- *Bod Péter Library Science Competition*: national 3<sup>rd</sup> place, 2000
- *Verseny 2000 Informatics Competition*: best presentation award, 2000
- *„Édes anyanyelvünk” communication competition*: outstanding performance in the national final, 2002
- *Szilárd Leó Nuclear Competition*: progress into national final, 2003

#### PROFESSIONAL QUALIFICATIONS

ECDL (European Computer Driving Licence)

- 2000, HU-199907290052003

Microsoft Certified Professional, MCP

- 2001, MCP 70-210 (retired: 2008. március)

Emergency medical technician

- 2009, Málta Ambulance Service, Budapest

- LANGUAGES
- English**, advanced level
- Advanced level, type A (spoken), state recognized language certificate (228681), 2002
  - Advanced level, type B (written), state recognized language certificate (213813), 2002
  - Pitman Qualifications English for Speakers of Other Languages, First Class Pass, 2002
  - Pitman Qualifications Spoken English for Speakers of Other Languages, First Class Pass, 2002, with City & Guilds Medal international award
- German**, advanced level
- Advanced level, type C (spoken and written), state recognized language certificate (228681), 2002 (348631), 2003
  - Zentrale Mittelstufenprüfung, Goethe Institut, Budapest, 2003
- MEMBERSHIPS
- Hungarian Statistical Society (Branch of Statistics Education)
  - Hungarian Clinical Biostatistical Society
  - Hungarian Diabetes Society
- TECHNICAL SKILLS
- Statistical program packages**
- R (with script development experience), SPSS, Stata (with script development experience)
- Econometrical program packages**
- gretl (with script development experience)
- Data mining environments**
- RapidMiner, weka, Clementine, Oracle DM, SAS
- Engineering program packages**
- Matlab
- Programming languages**
- C, C++, Java, CUDA
- Document preparation and typesetting programs**
- $\text{\LaTeX}$
- HOBBIES, OTHER INTERESTS
- Long-distance running (best half-marathon time: 1:40:53, best marathon time: 3:56:42), hiking, emergency medicine, submarine warfare.