

# Márton Ispány Curriculum Vitae

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Google Scholar: <https://scholar.google.hu/citations?user=mFbHqDYAAAAJ&hl=hu&oi=ao>

## Education

**Habilitation**, University of Debrecen, 2006

*Unstable, nonlinear, and non-stationary stochastic processes, in Hungarian*

**Ph.D. in Statistics**, University of Debrecen (Kossuth Lajos Tudományegyetem), 1997

*Discrete time nonlinear stochastic processes on Hilbert spaces, in Hungarian*

**M.Sc in Mathematics**, University of Debrecen (Kossuth Lajos Tudományegyetem), 1989

*Bilinear time series, in Hungarian*

## Fields of interest

Integer valued time series: INAR models, unstable processes and unit root testing, outliers and missing data, seasonality, nonlinear models

Branching processes: limit theorems, asymptotic behavior of CLS and other estimators, critical processes, multitype Galton–Watson processes with immigration

Smart city and urban computing: traffic modeling and analysis, data mining algorithms, sport informatics, software developing methods

Statistical modeling: dimension reduction techniques (PCA), contaminated statistical models, mixture index of fit, EM algorithm, generalized additive models

Applied statistics: mortality models in demography, comparative health research, respiratory diseases and air pollution in environmetrics

## Languages

Hungarian (mother tongue)

English (fluent)

Russian (sufficient)

## Professional Experience

**Head of Department**, Department of Information Technology, Faculty of Informatics, University of Debrecen, 2013–

**Associate Professor**, Department of Information Technology, Faculty of Informatics, University of Debrecen, 2007–

**Assistant Professor**, Department of Applied Mathematics and Probability Theory, University of Debrecen, 1996–2006

**Instructor**, Department of Applied Mathematics and Probability Theory, University of Debrecen, 1991–1996

**Technical Assistant**, Centre of Informatics and Computer Science, University of Debrecen, 1989–1991

## Scholarships

**Foundation for Hungarian Sciences**, K&H scholarship, 1995

**Foundation for Hungarian Higher Education and Research**, (later Magyary Zoltán scholarship), 1997

**Bolyai János Scholarship**, Hungarian Academy of Sciences, 1999–2002

**Tempus**, Chalmers University in Gothenburg, Sweden (T. Norberg), 1996

Department of Mathematics, University of Nijmegen (M.C.A. van Zuijlen), visits in 1999–2006

WHO/HQ, Geneva, Swiss (S. Chatterji, E. Verdes), 2006, 2011

Universidade Federal do Espirito Santo (UFES), Vitoria, Brazil (V. A. Reisen) 2014, 2015, 2016

## Awards, Honors

Pollák-Virág Award of Scientific Association for Infocommunications, 2012

Alexits György Award of Hungarian Academy of Sciences, 2004

Farkas Award for Young Statisticians and Applied Mathematicians (Hungarian Mathematical Society), 1999

## Membership and boards

Public Body of Hungarian Academy of Sciences

Hungarian Society for Bioinformatics

Hungarian Actuarial Society

## Regular refereeing services

Annals of Statistics  
Statistics and Probability Letters  
Statistical Inference for Stochastic Processes  
Metrika  
Telecommunication Systems  
Infocommunications Journal  
European Journal of Control  
Annales Computatorica  
Acta Universitatis Szegediensis  
Publicationes Mathematicae, Debrecen

## Grants and Sponsored Programs

**OTKA-F032060/2000**, 2000-2004  
Hungarian National Science Foundation, Nonlinear time series and regression models, project leader

**TÁMOP-4.1.2-08/1/A-2009-0046**, 2010-2012  
East-Hungarian Informatics Curriculum Storehouse, professional manager

**TÁMOP 4.1.2.A/1-11/1-2011-0103**, 2012-2014  
Gyúres Béla Informatics Curriculum Storehouse, project manager

**TÁMOP 4.2.2.C/1/KONV-2012-0001**, Future Internet Research, Services and Technology, Future Internet for Smart City Applications subproject, 2012-2014, project manager

**TÁMOP 4.2.2.C/1/KONV-2012-0001**, Future Internet Research, Services and Technology, Launching training and postgraduate courses for IT experts subproject, 2012-2014, project manager

**GOP-1.2.1-11-2012-0005**, 2012-2014  
SziMe3D-3D technological innovation in tourism, education and sport

## Teaching

INDK501 Adatbázisrendszerek (Database systems)  
INMV360 Adatbányászat (Data mining)  
INMV361 Adatbányászati alkalmazások (Data mining applications)  
INMV324 Információs rendszerek integrációja (Integration of information systems)  
INMV322 Információs rendszerek a gyakorlatban (Information systems in practice)  
INMK150 Adat- és rendszermodellek (Data and system models)  
INCVP51 Üzleti intelligencia a gyakorlatban (Business intelligence in practice)  
INCV151 Statisztika számítógéppel (Statistics with computers)

T\_I3603 Komputerstatistika (Computerstatistics)  
KT30540 SAS Üzleti Intelligencia (SAS Business intelligence)  
KT10240 Többváltozós statisztikai módszerek (Multivariate statistical methods)  
INMK130 Alkalmazott statisztika (Applied statistics)  
KTA10072 Statisztika II. (Statistics II)  
PTML25 Statisztikus tanuló algoritmusok (Statistical learning algorithms)  
T\_PM1312 Idősoranalízis (Time series analysis)  
T\_MST1301 Valószínűségszámítás és statisztika (Probability theory and statistics)  
T\_PM1489 Az adatbányászat újabb módszerei (New methods in data mining)  
T\_PM1318 Markov láncok alkalmazásai (Markov chain applications)  
KT50290 Optimumszámítás és ökonometria (Optimization in econometrics)  
T\_M2507 Sztohasztikus folyamatok (Stochastic processes)  
T\_PM1311 Válogatott fejezetek az idősorelemzésből (Selected fields of time series analysis)  
Információelmélet (Information theory)  
Numerikus analízis (Numerical analysis)  
Operációkutatás (Operation research)

### Lecture notes

Baran, S., Fazekas, I., Glevitzky, B., Iglói, E., Ispány, M., Kalmár, I., Nagy, M., Tar, L., Verdes, E., *Introduction to mathematical statistics*, KLTE, Debrecen, 1996, in hungarian.  
Tan, P.N., Steinbach, M., Kumar, V., *Introduction to Data Mining*, Panem Könyvek, Budapest 2012, hungarian translator and editor  
Ispány, M., *Introduction to Data Mining*, slides, 2011, 500 pages (Támop-4.1.2)  
Fülöp A., Gonda L., Ispány M., Jeszenszky P., Szathmáry L., *Case Studies in Data Mining*, 2014, 1000 pages (Támop-4.1.2)  
Ispány, M., *Computerstatistics*, lecture notes, 1997

### Other services

Medical Organizer, Medical insurance modul, student advisor, DEOEC Faculty of Medicine, 2007–2009  
Computer Science BSc, student advisor, Faculty of Informatics, University of Debrecen, 2013–  
Computer Science MSc, Information systems modul, student advisor, Faculty of Informatics, University of Debrecen  
Business Informatics MSc, Business informatics modul, student advisor, Faculty of Informatics, University of Debrecen  
Vice Dean (Student Affairs), 1 of September, 2012 – 30 of June, 2013  
**OTDK:** 1 dissertation with honor of jury

**PhD advisor:** 5 students with 1 succesful defence

**Refereeing of PhD thesis:** 5 times for ELTE IK, DE IK, BME VIK

**Referee for:** National Quality Program (TÁMOP 4.2.4.), Eötvös Lóránd and Apáczai Csere János grants, OTKA, GINOP applications at NKFIH

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