

Dr. Baranyi Péter Ph.D., D.Sc.  
Doctor of the Hungarian Academy of Sciences, university professor

01.11.2023

[peter.baranyi@uni-corvinus.hu](mailto:peter.baranyi@uni-corvinus.hu) Date of birth 10/07/1970 | Nationality Hungarian

- He established the Cognitive Infocommunications concept around 2010. It is a scientific discipline today. It has annual IEEE Int. Conf. and a number of scientific journal special issues. It focuses on the new cognitive capabilities of the blended combination of human and informatics.
- He invented the TP model transformation that is a higher order singular value decomposition of continuous functions. It has crucial role in nonlinear control design theories and opens new way for optimisation.
- He is the inventor of the first 3D platform as a combination of 3D web, 3D browser, 3D appstore and 3D Cloud. His research group firstly discovered that users get 40-50% better effectiveness in 3D digital environments.

## SCIENTIFIC CARRIER

---

- 2009 University professor - Given by the president of the Hungarian republic.
- 2009 Member of the Informatics Committee of Hungarian Academy of Sciences
- 2006 Doctor of the Hungarian Academy of Science - Hungarian Academy of Sciences
- 2006 Member of the Hungarian Academy of Engineering
- 1999 PhD - Budapest University of Technology and Economics

## DEGREES

---

- 1993 – 1995 M.Sc. in Education - Budapest University of Technology
- 1989 – 1994 M.Sc. in Electrical Engineering - Budapest University of Technology

## PUBLICATIONS

---

Number of publications: ~500; (3 books, 103 journal papers);  
Citations: 5515-Scopus; 5950-MTMT; 8400-Google Scholar.  
H-index: 35-Scopus; 38-MTMT; 43-Google Scholar.

### International impact

He was invited around 100 occasions to hold plenary lectures at international conferences and presentations at various universities such as Norwegian University of Science and Technology, Trondheim, Norway // University of Hull, England // Research Institute of Manufacturing Information Technology, Gifu Prefecture, Japan // Chinese University of Hong Kong // Louisiana State University, U.S.A // University of New South Wales, Sydney, Australia. // Tokyo Metropolitan University, Japan // University of Tokyo, Japan // Tokyo Institute of Technology, Japan // Chuo University, Tokyo, Japan // Osaka Institute of Technology, Japan. // University of Ostrava Czech Republik.

## AWARDS

---

### International

- Kimura Award, Asian Control Association, 2019
- Canadian / International Constituency Group Young Investigator Award, 2006. Sigma Xi the Scientific Research Society
- SAMSUNG Young Scientist (1st prize), 2003. Samsung Advanced Institute of Technology.
- International Dennis Gábor Award. 2000. NOVOFER.
- STA Award, 2000. Japan Science and Techn. Corporation (JST), Dept. Int. Affairs

### National

- Publication Award 2016, Széchenyi István University
- Kozma László Memorial Award 2012, Budapest University of Technology and Economics
- Bolyai Award 2010. Hungarian Academy of Sciences
- Bolyai János postdoc, 2006. Hungarian Academy of Sciences
- Kemény János Award, 2005. Neumann János Computer Society
- Award of the Computer and Automation Research Institute of the Hungarian Academy of Sciences. 2005, 2007, 2013.
- Békésy György postdoc. 2006. Ministry of Education.
- The most outstanding Technological Innovator of the year - II. award. 2002. Foundation for Industrial Development.
- Huszty Dénes Memorial Award, 2002.
- Magyary Zoltán Postdoc. 2001, 2002. Foundation for the Higher Education and Research.
- Youth Prize of the Hungarian Academy of Sciences 2000.

### Engineering

- Innovation Award for the Development of the VirCA (Virtual Collaboration Arena) Platform (TIRC/13/05131), TÜV Rheinland
- FET'11 The European Future Technologies Conference and Exhibition, EXHIBIT third price (for distant control via Virtual Reality)
- Shanghai World Exhibition, MaxWhere Virtual Reality Operation System, 2016
- MaxWhere, best IoT innovation Award (European Startup Award) 2018
- MaxWhere, Winner of the EU Pioneers Hackathon Industry 4.0. 2018

### Education

- Master Teacher Gold Medal, National Student Association, 2009.
- Award from the Rector for the outstanding work at the Budapest University of Technology, 2009.
- Memorial Award for the National Student Research Activity, 2007.
- Pro Scientia Award for supervising students at the National Student Research Competition. 2005 and 2007
- Award for supervising students at the National Student Research Competition, 1999 and 1998.

### Publications

- Selected paper announced in Research Frontier at IEEE CIS Newsletter, Issue 111, April 2022 (1/2).
- Best Paper Award, 1999. Int. conf. Joint Eurofuse-Soft and Intelligent Computing.
- Best Paper Award, 2003. 1st International Workshop on Intelligent Solutions in Embedded Systems held in Vienna, Austria.
- Outstanding Paper Award, 2005. 6th Int. Symp. Adv. Intelligent Systems, Korea.
- Session Best Presentation Award, 2006. Joint 3rd Int. Conf. on Soft Computing and Intelligent Systems and 7th Int. Symp. Adv. Intelligent Systems, Tokyo
- Best Paper Award in Biomimetics Finalist, 2010 IEEE Int. Conf. on Robotics and Biomimetics, Tianjin, China.

## International Experience

---

IISL  
Japanese -  
Hungarian Lab  
2001

- Integrated Intelligent Systems Japanese-Hungarian Laboratory (IISL)  
He initiated and established the IISL.  
The MOU of the laboratory was signed in Vancouver , Canada in 2001.  
The members of the laboratory were: SOFTOPIA-t (research center of universities and research institutions), Gifu Research Institution, and further 6 Hungarian University departments. The lab organised R&D projects, researcher exchange and series of seminars.

ITM  
Norwegian-  
Hungarian  
2004

- Emerging Information Technology in Manufacturing (ITM)  
He initiated and established the ITM.  
Members are: Norwegian University of Science and Technology (NTNU), Narvik University College (NUC), Productive Programming Methods AS (PPM), Computer and Automation Research Institute (SZTAKI), Budapest University of Technology and Economics (BUTE).  
The laboratory was generating R&D projects, researcher exchange and series of seminars and supervised 2.4mEUR project that was addressed as the most outstanding project of the EGT area of EU.

Research  
positions  
abroad  
Total 4 years

- Dept. Engineering, University of Hull, Anglia, 2002-2003. 5 months.
- Gifu Research Institute of Manufacturing Information Technology, Information System Department, 2000-2001, Gifu, Japan, 1 year.
- Chinese University of Hong Kong, Dept. Mechanical and Automation Engineering, Hong Kong, 1996. 6 months.
- Chinese University of Hong Kong, Dept. Mechanical and Automation Engineering, Hong Kong, 1998. 4 months.
- University of New South Wales, Department of Information Engineering, School of Computer Science and Engineering, Sydney, Australia, 1997.
- Tokyo University, Harashima Hashimoto Lab, Tokió, Japán, 1999.
- Technical University of Duisburg, Németország, 1997. 3 months.
- CRNS LAAS Science Center, Toulouse, Franciaország, 1996. 3 months.
- Various universities in EU for 1-3 months.

## PROJECT LEADER

---

He won and lead the following projects:

- HUN-REN research lab. 150 mHUF 2021-2024.
- Széchenyi István University. FIEK - Virtual Reality, 300 mHUF. 2018-2020
- KTIA\_AIK\_12: "Virtual Reality based Cognitive Space for Immersive Media Spaces", 2013-2015, (KTIA\_AIK\_12-1-2013-0037), 194 MFt.
- EGT/Norwegian financial mechanism, EEA Grants, 2008-2011, 2,4 MEUR.
- NKTH-ERC IDEAS: „LPV models in TP model based control”, 2009-2014, 93MFt.
- TÁMOP: „New generation of the relation of the Human - Infomatics (ETOCOM)”, (TÁMOP-4.2.2/08/1/KMR-2008-0007) 2009-2011. 377mHUF
- NKTH NAP Program: „Cooperative Centre for analysing communication networks. (KCKHA005), 2008-2011. 180mHUFt.
- Further various smaller research projects: OTKA, FKFP, GVOP around 1999-.

## Post-Doc positions

---

2003. 09 – 2004. 06 Békésy György postdoc,  
Budapest University of Technology and Economics
2001. 09 – 2003. 08 Magyary Zoltán postdoc,  
Budapest University of Technology and Economics
- 2006-2009 Bolyai János postdoc,  
Computer and Automation Research Institute of the Hungarian Academy of  
Sciences