

# Prof. Dr. habil. Levente Adalbert Kovács

Rector, Full professor  
electrical engineer, biomedical engineer  
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<http://physcon.uni-obuda.hu/?q=en/>

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## 1. PERSONAL DATA

Date of birth: 12 of April 1977  
Place of birth: Resita, Romania

## 2. SCIENTIFIC DEGREES

- 2000 **MSc in electrical engineering**, "Politehnica" University of Timișoara, Faculty of Control Engineering and Computer Science, specialization: Automation and Industrial Informatics.
- 2001 **Postgradual training in Industrial Control**, "Politehnica" University of Timișoara, Automation and Industrial Informatics.
- 2011 **MSc in Biomedical Engineering**, Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics.
- 2008 **PhD**, Budapest University of Technology and Economics, Electric Engineering Doctoral School. Supervisor: Prof. Dr. Zoltán Benyó.  
PhD thesis title: *New principles and adequate control methods for insulin dosage in case of diabetes.*
- 2013 **habilitation**, Obuda University, title: *Model-based control algorithms for optimal therapy of high-impact diseases.*
- 2024 **DSc** (Doctor in science), Hungarian Academy of Sciences, Section of Engineering Sciences, Committee on Information Science, title: *Personalized physiological modeling and control by robust control methods.*

## 3. TEACHING ACTIVITY (2000-present)

- 2019 – Obuda University (OE), *rector / president.*
- 2016 – Obuda University (OE), *full professor.*
- 2018 – 2019 Obuda University (OE), *vice rector for education.*
- 2013 – 2018 OE John von Neumann Faculty of Informatics, *vice dean for education.*
- 2012 – 2016 Obuda University (OE), *associate professor.*
- 2011 – 2012 Budapest University of Technology and Economics (BME), *associate professor.*
- 2008 – 2011 Budapest University of Technology and Economics (BME), *senior lecturer.*
- 2005 – 2008 Budapest University of Technology and Economics (BME), *teacher assistant.*
- 2000 – 2006 "Politehnica" University of Timișoara (TME), *teacher assistant.*
- 2006 – 2007 "Politehnica" University of Timișoara (TME), *invited lecturer.*
- 2001 – 2004 Partium Christian University of Oradea (PKE), *part time teacher assistant.*

## 4. LECTURES

- In Hungarian: Systems and Control Theory (OE), Development management of medical devices (OE), Process Control (BME), Introduction to biomedical engineering (OE, BME), Biomedical process simulation (BME), Chemical and biomedical measurements (BME), Project Laboratory (BME), Computer architecture (PKE).
- In English: System- and Control Theory (ÓE), System Theory (ÓE), Control engineering (ÓE), Basics of Information Systems (OE), Intelligent Systems (OE), Analysis and Simulation of Physiological Control Systems (BME), Control Engineering (OE, BME), Biomedical Engineering (ÓE, BME).
- In Romanian: Process Control (TME), Control Theory (TME), Introduction in Control Theory (TME).

## 5. SPECIALTY

- Physiological Modeling and Control
- Modern Robust Control Theory
- Cyber-Medical Systems
- Biomedical Engineering

## 6. RESEARCH SUPERVISORY OVERVIEW

- Developing control engineering algorithms for taming cancer (2016-)
- Research and development of cybermedical systems (2016-)
- Development of a Hungarian artificial pancreas algorithm (2010-)
- Development and biostatistical evaluation of new control methods for optimal control of cancer (2011-)
- Control of peristaltic pumps in hemodialysis machines (2013-2015)
- Development of classical and modern control algorithms for effective telesurgical applications (2011-2104)
- Development of robust blood glucose control for ICU (2010-2012)
- Patient motion compensation in surgical robotics (2010-2012)
- Electromagnetic noise and error measurement, calibration and tool integration in surgical robotics (2010-2012)
- Development of robust control algorithms for insulin injection in case of type 1 diabetes mellitus (2007-2010)
- Development of new methods for the risk estimation of obese population (2007-2010)
- Design of NFC based mobile applications (2006-2009)
- Human factor in controlled vehicle systems (2004-2008)
- Medical information system for diagnosing and monitoring diabetes mellitus in children (2003-2004)
- Medical information system for diagnosing hearing disorder in children (2003-2005)
- Temperature control with industrial DeltaV system (2002-2004)
- Control of the Three Tank System (2001-2002)

## 7. DEFENDED PHD STUDENTS

- |      |                         |   |
|------|-------------------------|---|
| 2024 | Máté Siket              | (title: <i>Model-based investigation of physiological systems and signals</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.  |
| 2024 | Bence Czakó             | (title: <i>Development of model-based regulatory methods to facilitate the treatment of cancer diseases</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.  |
| 2023 | Péter Szalay            | (title: <i>Estimation and Robust Control of Nonlinear Diabetes Model</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.   |
| 2021 | Stefano-Niko Orzen      | (title: <i>Improvement of Real-Time Session Communications with the Creation of an Synchronization Algorithm that is Integrated in the OSI Model</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.                         |
| 2018 | József Klespitz         | (title: <i>Design of Processes Supporting the Development of Medical Devices</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.   |
| 2017 | György Eigner           | (title: <i>Closed-Loop Controller Design Possibilities for Nonlinear Physiological Systems</i> ), OE Applied Informatics and Applied Mathematics Doctoral School.   |
| 2015 | Johanna Sájevicsné Sápi | (title: <i>Controller-managed automated therapy and tumor growth model identification in the case of antiangiogenic therapy for most effective, individualized treatment</i> ), OE Applied Informatics and Applied Mathematics Doctoral School. |

## 8. PHD SUPERVISOR

- Róbert Román (2024-), full time PhD
  - Topic: Development and application of deep learning algorithms for diagnostic and therapeutic analysis of medical image data
- Yereke Kydyrbekov (2023-), East Kazakhstan Technical University
  - Topic: Sustainable energy consumption system for industrial premises using renewable energy sources based on machine learning
- Masoumeh Vali (2023-), full time PhD
  - Topic: Home Healthcare Problem Using Metaheuristic algorithm and Machine Learning
- Ioan-Marius Pisak-Lukáts (2022-), full time PhD
  - Topic: Development and optimization of decision support systems for medical diagnostic purposes
- Szabolcs Csaholczi (2020-), full time PhD
  - Topic: Development and application of deep-learning algorithms for medical imaging
- Katalin Ferencz (2020-), full time PhD
  - Topic: Evidence-based IIoT (Industrial Internet of Things). Distributed sensor data storage and processing for non-supervised outlier detection and predictive maintenance
- Béla Surányi (2020-), full time PhD
  - Topic: Development and application of deep learning algorithms for diagnostic and therapeutic analysis of medical image data
- Bauyrzhan Smakanov (2020-), East Kazakhstan Technical University
  - Téma: Intelligent video surveillance system to ensure safety
- Jelena Tasic (2019-), full time Stipendium Hungaricum program, PhD
  - Topic: Advanced Computer Aided Technologies related to Physiological Systems
- Ágnes Györfi (2018-), full time PhD
  - Topic: Automatic analysis of 3D medical images
- Péter Piros (2016-), full time PhD
  - Topic: Big Data applications with artificial intelligence methods
- Róbert Pethes (2015-), full-time PhD
  - Topic: Modeling infection propagation
- András György (2009-2010), full-time PhD
  - Topic: Control- and computer-based investigation of physiological processes
  - Interrupted after successful PhD admission to the Massachusetts Institute of Technology (MIT), Boston, USA

## 9. PHD REVIEWER ACTIVITY

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|---------------------------|--|
| ▪ Tan Xiaoyu              | 2019, National University Singapore , Singapore.           |
| ▪ Vanessa Moscard Garcia  | 2019, Univesitat Politecnica Valencia, Spain.              |
| ▪ Padmanabhan Regina      | 2018, Qatar University, Qatar.                             |
| ▪ Bernadett Ács           | 2018, Peter Pazmany Catholic University.                   |
| ▪ Márton Németh           | 2018, Budapest University of Technology and Economics.     |
| ▪ Alexandra Szöllősi      | 2018, Budapest University of Technology and Economics.     |
| ▪ Dongfei Fu              | 2016, Ghent University, Belgium.                           |
| ▪ Ho Yick Wai Yvonne      | 2016, National University Singapore, Singapore.            |
| ▪ Matthew Chua            | 2015, National University Singapore, Singapore.            |
| ▪ Dániel Vizer            | 2015, Budapest University of Technology and Economics.     |
| ▪ Liza Pelyhe             | 2015, Budapest University of Technology and Economics.     |
| ▪ Alexandru Codrean       | 2015, Politehnica University Timisoara, Romania.           |
| ▪ Yang Tao                | 2015, National University Singapore, Singapore.            |
| ▪ Lee Chun Siong          | 2015, National University Singapore, Singapore.            |
| ▪ Fatanah Mohamad Suhaimi | 2012, University of Canterbury, Christchurch, New Zealand. |
| ▪ József Kopják           | 2013, Széchenyi István University, Győr, Hungary.          |

## 10. PROJECTS INVOLVED

- TKP2021-NKTA-36 project „*Innovative and digital development and evaluation of cybermedical technologies*” (2022-2025), subproject leader, 480 000 000 Ft.
- 2019-1.3.1-KK-2019-00007 project „*Creating an innovation service center for diagnostic, therapeutic and research-based cybermedical systems development*” (2020-2024), coordinator, 1 899 297 017 Ft.
- EFOP 3.4.3-16-2016-00023 project „*University institutional development for quality and accessibility increase in higher education*” (2018-2020), scientific coordinator.
- Excellence Thematic Program 2020 – National Challenges project, “*The social and economic benefits of innovation: digitalization and the health industry*” subproject (2019-2021), researcher.
- EFOP 3.6.1-16-2016-00010 project „*Institutional development for intelligent specializations at Óbuda University*” (2017-2019), researcher.
- EFOP 3.6.2-16-2017-00015 project „*Hu-Maths-In – Hungarian Industrial and Innovative Mathematical Network activity*”, „*Evidence-based medicine by advanced mathematical modelling methods*” (2017-2019), subproject leader.
- H2020 MSCA-RISE project „*Dynamics*” („*Contributions to codimension  $k$  bifurcations in dynamical systems theory*”, No. 777911, 2018-2022), project manager for Óbuda University consortia partner, 1 012 500 EUR.
- ERC StG 2015 project “*Tamed Cancer*” (“*Personalized Cancer Therapy by Model-based Optimal Robust Control Algorithm*”, No. 679681, 2016-2021), principal investigator, 1 015 900 EUR.
- TÁMOP 4.2.2.D-15/1/KONV-2015-0002 project, “*Development of smart technologies for supporting high-tech industrial areas*” (2015), project manager and researcher.
- TÁMOP 4.2.2.A-11/1/KONV-2012-0073 project, „*Telemedicine Oriented Research in the Fields of Mathematics, Informatics and Medical Sciences*” (2012-2015), researcher.
- TÁMOP 4.1.1C-12/1/KONV-2012-0003 project „*Hungarian Online University*” (2013-2015), researcher.
- National Development Agency, GOP-2011-1.1.1 program, GOP-1.1.1-11-2012-0055 project, „*DIALOGIC – Mathematical model-based decision support system to improve diabetes health management*” (2012-2013), project manager for Óbuda University consortia partner, 664 998 225 Ft.
- National Development Agency, GOP-2011-1.1.1 program, GOP-1.1.1-11-2012-... project, „*ROBOT-X – Robot design kit development for educational, hobby and research and development purposes*” (2013-2014), researcher.
- “*Critical infrastructure defense research*”, New Széchenyi Plan (Project ID: TÁMOP-4.2.1/B-11/2/KMR-2011/0001) (2012-2013), researcher.
- Austrian-Hungarian Research and Educational Foundation, OMAA 82öu11 project, „*Symbolic Computation and Automated Reasoning for the Numeric Analysis of Diabetes Models*” (2011-2012), project co-leader, 2 462 000 Ft.
- “*Development of quality-oriented and harmonized R+D+I strategy and functional model at BME*” project, New Széchenyi Plan (Project ID: TÁMOP-4.2.1/B-09/1/KMR-2010-0002) (2010-2012), researcher.
- Hungarian National Scientific Research Foundation, OTKA 82066, “*Novel methods for the improvement of medical diagnostics*” (2010-2014), professional coordinator of one research task, 17 004 703 Ft.
- Hungarian National Scientific Research Foundation, OTKA 80316, “*Quality and safety improvements of image guided surgical procedures and nuclear medical imaging using advanced computer science*” (2010-2013), professional coordinator of two research tasks, 37 203 500 Ft.

- Hungarian National Scientific Research Foundation, OTKA T69055, “*Development of new measurement and control methods, and their bioinformatics applications, for early diagnosis and optimal treatment of metabolic diseases*” (2007-2010), professional coordinator, 10 785 000 Ft.
- Hungarian National Office for Research and Technology (NKTH), RET-04/2004, “*Electronic Vehicle and Vehicle Control*” (2004-2008), professional coordinator, 30 000 000 Ft.
- Hungarian National Office for Research and Technology (NKTH), TECH\_08-A2/2, “*DIAD\_NFC Independent Dynamic NFC Applications – Concept and implementation*” (2009-2012), researcher.
- EU 6th Framework IST project, “*StoLPaN - Store Logistics and Payment with NFC*” (2006-2009), researcher.
- Hungarian National Office for Research and Technology (NKTH), TeraTomo project, “*Developing teraflop capacity image reconstruction system built in tomography devices with different modality medical diagnostics*” (2009-2012), researcher.
- Hungarian National Scientific Research Foundation, OTKA T042990, “*Diagnostic-purpose Research of Biological Signals using System Theory*” (2002-2006), PhD student.
- Romanian National University Research Council (CNCSIS), 36681/ 3/ 2000, “*Investigating the development of new system stability analyzing methods of fuzzy control for energetic processes*” (2000-2002), researcher.
- Romanian National University Research Council (CNCSIS), 34977/ 35/ 2001, “*Investigating the development of robust control fuzzy system methods based on parameter sensitivity*” (2001-2003), researcher.
- Romanian National University Research Council (CNCSIS), 34977/ 34/ 2001, “*Investigating new stability methods for Takagi-Sugeno type fuzzy control systems*” (2001-2003), researcher.

## 11. PROFESSIONAL AFFILIATIONS AND CONTRIBUTIONS

### a. International and Hungarian Committees:

|  |           |
|--|-----------|
| IEEE SMC Board of Governors member   | 2024-     |
| Carpathian-basin Talent Research Foundation board chair  | 2024-     |
| Foundation for Hungarian Health Industry board member  | 2023-     |
| Hungarian Innovation Association board member  | 2023-     |
| Hungarian Rectors Conference board member  | 2022-     |
| Hungarian Space Mission Program board member   | 2022-     |
| Association for Computing Machinery (ACM) (1050919)  | 2022      |
| Hungarian Academy of Sciences, Engineering Sciences Section, Committee on Information Science member                                       | 2021-2023 |
| Hungarian Autonomous Systems National Laboratory, Advisory Board member  | 2020-     |
| Hungarian Artificial Intelligence National Laboratory, Advisory Board member   | 2021      |
| European Society for Mathematical and Theoretical Biology member   | 2019-     |
| Hungarian National Research, Development and Innovation Office, Informatics and Electrical Engineering professional group member           | 2018-2021 |
| János Neumann Computer science Society (NJSZT) member (94116)  | 2019-     |
| • Hungarian Fuzzy Society  | 2019-     |
| Szechenyi University Győr, Doctoral School of Multidisciplinary Engineering Sciences, Computer Engineering Sciences Doctoral Branch member | 2019-     |
| Hungarian Accreditation Committee expert   | 2018-     |

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| Hungarian Research Fund Informatics and Electrical Engineering committee member                                  | 2018-2021 |
| Corvinus University, Budapest, member of the Scientific Advisory Board   | 2018-2021 |
| IEEE Region 8 Nominations and Appointments Committee member  | 2020-2022 |
| IEEE Control System Society Hungary Chapter founder and chair  | 2018-     |
| Hungarian Academy of Engineering member  | 2018-     |
| IEEE SMC Society CyberMedical Systems Technical Committee chair  | 2016-     |
| IEEE SMC Hungary chapter chair   | 2015-     |
| IEEE Hungary Section board member  |           |
| <ul style="list-style-type: none"> <li>• Chair</li> </ul>  | 2017-2020 |
|  | 2022-2024 |
| <ul style="list-style-type: none"> <li>• Vice Chair</li> </ul>   | 2013-2016 |
| <ul style="list-style-type: none"> <li>• Membership Development officer</li> </ul>                               | 2010-2016 |
| IEEE membership (90492405)   |           |
| <ul style="list-style-type: none"> <li>• senior member</li> </ul>  | 2018-     |
| <ul style="list-style-type: none"> <li>• member</li> </ul>   | 2009-2017 |
| IEEE Societies membership  |           |
| <ul style="list-style-type: none"> <li>• Engineering in Medicine and Biology Society member</li> </ul>           | 2012-     |
| <ul style="list-style-type: none"> <li>• Systems, Man, and Cybernetics Society member</li> </ul>                 | 2013-     |
| <ul style="list-style-type: none"> <li>• Control System Society member</li> </ul>                                | 2013-     |
| <ul style="list-style-type: none"> <li>• Robotics &amp; Automation Society member</li> </ul>                     | 2018-     |
| National Institute of Pharmacy and Nutrition, Directorate for Device Testing and Clinical Engineering consultant | 2015-2018 |
| Obuda University Physiological Controls Research Center founder and leader                                       | 2013-     |
| Obuda University Habilitation and Doctoral School member   | 2014-     |
| Obuda University, Applied Informatics and Applied Mathematics Interdisciplinary Doctoral School board member     | 2014-     |
| Obuda University, president of Senate  | 2019-     |
| Obuda University, member of Senate   | 2018-     |
| Obuda University, John von Neumann Faculty of Informatics, faculty council member                                | 2015-2020 |
| Obuda University, Ethical Committee member   | 2014-2016 |
| IFAC member  |           |
| <ul style="list-style-type: none"> <li>• TC 8.2 “Biological and Medical Systems” member</li> </ul>               | 2010-     |
| <ul style="list-style-type: none"> <li>• TC 9.4 “Advanced Control Education” member</li> </ul>                   | 2017-     |
| Hungarian Diabetes Association member (13201)  | 2010-     |
| Hungarian Artificial Pancreas working group leader   | 2010-     |
| Hungarian Academy of Science, Section of Engineering Sciences, corresponding member (18768)                      |           |
| <ul style="list-style-type: none"> <li>• Committee on Automation and Computer Science</li> </ul>                 | 2008-2014 |
| <ul style="list-style-type: none"> <li>• Committee on Computer Engineering</li> </ul>                            | 2015-     |
| MATE (Measuring Technology, Automation and Computer ScienceEngineering Society):                                 |           |
| <ul style="list-style-type: none"> <li>• member</li> </ul>   |           |

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|--|------------------------|
| • Control Theory section, member of management board (9007)                      | 2007-2016<br>2007-2012 |
| SRAIT (Romanian Society of Control Engineering and Technical Informatics) member | 2000-2006              |
| EMT (Transylvanian Technical Society) member                                     | 2000-2002              |

## b. Reviewer activities

Reviewer of International conferences:

- 12th IFAC Symposium on Biological and Medical Systems (IFAC BMS) 2024.
- 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2023).
- IFAC Advances in Control Education (IFAC ACE) 2022.
- 2022 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2022).
- 11th IFAC Symposium on Biological and Medical Systems (IFAC BMS) 2021.
- 2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2021).
- 17th IFAC Symposium on Information Control Problems in Manufacturing (INCOM), 2021.
- 60th IEEE Conference on Decision and Control (CDC) 2021.
- 2021 American Control Conference (ACC), 2021.
- 2020 European Control Conference (ECC), 2020.
- 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020).
- EFMI STC2020: Integrated Citizen centered digital health and social care
- 19th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET), 2020.
- IFAC World Congress 2011, 2014, 2017, 2020, 2023.
- 2019 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2019).
- 12th IFAC Symposium on Advances in Control Education (IFAC ACE 2019), 2019.
- 2019 American Control Conference (ACC), 2019.
- 18th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET), 2019.
- 2019 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2019), 2019.
- Pannonian Conference on Advances in Information Technology (PCIT), 2019.
- 57th IEEE Conference on Decision and Control (CDC) 2018.
- 2018 IEEE International Conference on Systems, Man, and Cybernetics (SMC2018), 2018.
- 17th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET), 2018.
- 9th IFAC Symposium on Robust Control Design (ROCOND'18) and 2nd IFAC Workshop on Linear Parameter Varying Systems (LPVS'18), 2018.
- 10th IFAC Symposium on Biological and Medical Systems (IFAC BMS) 2018.
- 2nd IEEE Conference on Control Technology and Applications (IEEE CCTA) 2018.
- 3rd IFAC Conference on Advances in Proportional-Integral-Derivative Control (IFAC PID) 2018.
- 56th IEEE Conference on Decision and Control (CDC) 2017.
- 16th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET) 2017.
- 12th IEEE Conference on Industrial Electronics and Applications (ICIEA) 2017.
- 2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2016).
- 2015 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2015).
- 10th Asian Control Conference (ASCC) 2015.
- IEEE International Conference on System Science and, Engineering (ICSSE) 2015.
- 2014 International Conference on Fuzzy Theory and Its Applications (iFUZZY) 2014.
- 14th IEEE International Conference on Robotics and Automation (ICRA) 2014.
- IEEE International Work Conference on Bio-inspired Intelligence (IWOB) 2014.
- IEEE Mediterranean Conference on Control and Automation (MED) 2013-.
- 16th IFAC Symposium on System Identification (SYSID) 2012.
- IFAC World Congress 2011, 2014, 2017.

- IFAC symposium on Biological and Medical Systems, 2009, 2012, 2015.
- 5th European Conference of the International Federation for Medical and Biological Engineering (EMBEC) 2011.
- IEEE International Symposium on Computational Intelligence and Informatics (CINTI), 2013-.
- IEEE International Symposium on Intelligent Systems and Informatics (SISY) 2013-.
- IEEE International Symposium on Logistics and Industrial Informatics (LINDI) 2013-.
- IEEE International Conference on Intelligent Engineering Systems (INES) 2013-.
- IEEE International Symposium on Applied Machine Intelligence and Informatics (SAMI) 2011-.
- IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI) 2011-.
- IEEE International Joint Conferences on Computational Cybernetics and Technical Informatics (ICCC-CONTI) 2010-.
- 9th International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD) 2010.
- IEEE Engineering in Medicine and Biology Conference (EMBC) 2009-.
- International Symposium on Bio- and Medical Informatics (BMIC) 2008-2016.
- IFAC Symposium on Robust Control Design (ROCOND) 2006.
- International Conference on Recent Achievements in Mechatronics, Automation, Computer Science and Robotics (MACRo) 2011.

Reviewer of International journals:

- Acta Astronautica
- Acta Polytechnica Hungarica
- Ain Shams Engineering Journal
- Applied Soft Computing
- Asian Journal of Control
- Biomedical Engineering Online
- Biomedical Signal Processing and Control
- Computer Methods and Programs in Biomedicine
- Computer Methods in Biomechanics and Biomedical Engineering
- Control Engineering Practice
- European Journal of Control
- Hindawi Journal of Industrial Engineering
- Hindawi Mathematical Problems in Engineering
- Hindawi Computational and Mathematical Methods in Medicine
- IEEE Transactions on Automation Science and Engineering
- IEEE Transactions on Automatic Control
- IEEE Transactions on Biomedical Engineering
- IEEE Transactions on Fuzzy Systems
- IEEE Transactions on Mechatronics
- IET Healthcare Technology Letter
- International Journal of Biomedical Engineering and Technology
- International Journal of Robust and Nonlinear Control
- Journal of Control
- Journal of Control Science and Engineering
- Journal of Diabetes Science and Technology
- Journal of Healthcare Engineering
- Journal of Medical and Biological Engineering
- Journal of Theoretical Biology
- Knowledge-Based Systems
- Measurement Science and Technology
- Optimal Control Applications and Methods
- Open Medical Informatics Journal
- Periodica Polytechnica, Electrical Engineering

- PLOS ONE
- Polish Archives of Internal Medicine
- Serbian Journal on Electrical Engineering
- Springer Medical & Biological Engineering & Computing
- The International Journal of Medical Robotics and Computer Assisted Surgery

Journal editorial board member / track chair

- Scientia et Securitas (2023-)
- IEEE SMC Magazine (2022-)
- Infocommunications Journal (2015-)
- MDPI Machines (2020-)
- MDPI Mathematics (2021-)
- System Theory, Control and Computing Journal (2020-)
- NBP Journal of Criminalistic and Law (2020-2021)
- MDPI Engineering Mathematics (2021-)
- IEEE SMC Magazine (2020-)
- Partium University Review (2022-)
- Acta Universitatis Sapientiae, Series Electrical and Mechanical Engineering (2020-)
- Acta Polytechnica Hungarica (2012-2019)
- International Journal of Diabetes & Clinical Diagnosis (2015-2018)

Editor-in-chief

- Acta Polytechnica Hungarica (2020-)

Special issue organizer

- “*Development, evaluation and management of innovative digital medical devices*”, Acta Polytechnica Hungarica (IF: 1.8), 2024.
- “*XAI Technology in Medical Decision Making*”, MDPI Applied Sciences (IF: 2.7), 2024.
- “*AI Technology in Medical Image Analysis*”, MDPI Applied Sciences (IF: 2.7), 2024.
- “*Fractional-Order PID Control: Modeling and Applications*”, MDPI Fractal and Fractional (IF: 3.577), 2023.
- “*Selected Papers from the 15th International Symposium on Applied Computational Intelligence and Informatics (SACI 2021)*”, MDPI Robotics, 2022.
- “*Modelling and Control in Healthcare and Biology*”, MDPI Mathematics (IF: 2.258), 2022.

Grant reviewer

- H2020 Future and Emerging Technologies (FET).
- Industrial Research Fund, K.U. Leuven, Belgium.
- NKTH Baross Gábor Program Hungary – Regional Innovative Developments.
- National Office for Research and Technology Hungary.
- Romanian National Authority for Scientific Research and Information.

**c. Conference organization**

- Advisory Board:
  - CcS 2020 – International Symposium on Community-centric Systems, Tokyo, Japan.
- General / Honorary Chair:
  - ISAP 2024 – 22nd International Conference on Intelligent Systems Applications to Power Systems, Budapest, Hungary.
  - UPoN 2024 – 9th International Conference on Unsolved Problems on Noise, Budapest, Hungary.
  - SACI 2024 – 18th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
  - ICCS 2024 – 12th IEEE International Conference on Computational Cybernetics and Cyber-Medical Systems, Hanoi, Vietnam.
  - SAMI 2024 – 22nd IEEE International Symposium on Applied Machine Intelligence and Informatics, Stara Lesna, Slovakia.
  - NTAD 2023 – New Trends in Aviation Development International Scientific Conference, Stary Smokovec, Slovakia, 2023.

- CINTI 2023– 23th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.
- SISY 2023 – 21th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- INES 2023 – 27rd IEEE International Conference on Intelligent Engineering Systems, Nairobi, Kenya.
- SACI 2023 – 17th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- ICCC 2023 – 11th IEEE International Conference on Computational Cybernetics and Cyber-Medical Systems, Cancun, Mexico.
- SAMI 2023 – 21th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herlany, Slovakia.
- CINTI 2022– 22th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.
- SISY 2022 – 20th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- INES 2022 – 26rd IEEE International Conference on Intelligent Engineering Systems, Crete, Greece.
- ICCC 2022 – 10th IEEE International Conference on Computational Cybernetics and Cyber-Medical Systems, Reykjavik, Iceland.
- SACI 2022 – 16th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- SAMI 2022 – 20th IEEE International Symposium on Applied Machine Intelligence and Informatics, Poprad, Slovakia.
- CINTI 2021– 21th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.
- SISY 2021 – 19th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- INES 2021 – 25rd IEEE International Conference on Intelligent Engineering Systems, Budapest, Hungary.
- SACI 2021 – 15th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- SAMI 2021 – 19th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herlany, Slovakia.
- CINTI 2020 – 20th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.
- SISY 2020 – 18th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- INES 2020 – 24rd IEEE International Conference on Intelligent Engineering Systems, Reykjavik, Iceland.
- SACI 2020 – 14th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- SAMI 2020 – 18th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herlany, Slovakia.
- CINTI-MACRo 2019 – Joint 19th IEEE International Symposium on Computational Intelligence and Informatics & 7th International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, Szeged, Hungary.
- SISY 2019 – 17th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- SACI 2019 – 13th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- INES 2019 – 23rd IEEE International Conference on Intelligent Engineering Systems, Gödöllő, Budapest.
- SAMI 2019 – 17th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herlany, Slovakia.
- Societal Automation Conference 2019, Krakow, Poland.
- CINTI 2018 – 18th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.

- SISY 2018 – 16th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- INES 2018 – 220th IEEE International Conference on Intelligent Engineering Systems, Las Palmas, Spain.
- SACI 2018 – 12th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- SAMI 2018 – 16th IEEE International Symposium on Applied Machine Intelligence and Informatics, Herlany, Slovakia.
- NC30 – IEEE 30th Jubilee Neumann Colloquium, Budapest, Hungary, 2017.
- INES 2017 – 21th IEEE International Conference on Intelligent Engineering Systems, Larnaca, Cyprus.
- SISY 2017 – 15th IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia.
- Steering Committee:
  - VTCA 2019 – Third International Conference on Smart Vehicular Technology, Transportation, Communication and Applications, Arad, Romania, 2019.
  - ECC 2019 – Sixth Euro-China Conference on Intelligent Data Analysis and Applications, Arad, Romania, 2019.
- Local Organizing Committee / Technical Organizing Committee:
  - SMC 2025 – IEEE International Conference on Systems, Man, and Cybernetics, Vienna, Austria.
  - GPMC 2019 – 1st IEEE International Conference on Griding and Polytope Based Modeling and Control, Budapest, Hungary – International Organizing Committee chair.
  - INES 2018 – 20th IEEE International Conference on Intelligent Engineering Systems, Las Palmas, Spain – TPC Chair.
  - INES 2017 – 19th IEEE International Conference on Intelligent Engineering Systems, Larnaca, Cyprus – TPC Chair.
  - SMC 2016 – IEEE International Conference on Systems, Man, and Cybernetics, Budapest, Hungary – Local Arrangements Chair.
  - INES 2016 – 19th IEEE International Conference on Intelligent Engineering Systems, Budapest, Hungary – TPC Chair.
  - EAI International Conference on Mobile Medical Multimedia Technologies, Applications and Services 2016, Budapest, Hungary – TPC Co-Chair.
  - CINTI 2015 – 16th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary – TPC Chair.
  - INES 2015 – 19th IEEE International Conference on Intelligent Engineering Systems, Bratislava, Slovakia – TPC Chair.
  - CINTI 2014 – 15th IEEE International Symposium on Computational Intelligence and Informatics, Budapest, Hungary – TPC Chair.
  - INES 2014 – 18th IEEE International Conference on Intelligent Engineering Systems, Tihany, Hungary – TPC Chair.
  - IFAC BMS 2012 – 8th IFAC Symposium on Biological and Medical Systems, Budapest, Hungary – editor.
  - EMBEC 2011 – 5th European Conference of the International Federation for Medical and Biological Engineering, Budapest – LOC member.
  - 10 years of Biomedical Engineering education in Hungary, Budapest, Hungary, July 20-21, 2005 – LOC member.
  - International Scientific Student Conference of Hungarian Students, Timisoara, Romania, 2000 – General Chair.
  - International Scientific Student Conference of Hungarian Students, Timisoara, Romania, 1999 – General Chair.
- International Programme Committee member:
  - IFAC PID'24 – 4th IFAC Advances in Proportional-Integral-Derivative Control conference, Almeria, Spain, 2024.
  - DEPCOS 2024 – 18th International Conference on Dependability of Computer Systems, Brunow, Poland., 2024.
  - ICETA 2023 – International Conference on Emerging eLearning Technologies and Applications, Stary Smokovec, High Tatras, Slovakia, 2023.

- PC 2023 – 24rd International Conference on Process Control, Strbske Pleso, Slovakia, 2023.
- ICSTCC 2022 – 26th International Conference on System Theory, Control and Computing, Sinaia, Romania, 2022.
- ICETA 2022 – International Conference on Emerging eLearning Technologies and Applications, Stary Smokovec, High Tatras, Slovakia, 2022.
- ACODS 2022 – 7th International Conference on Advances in Control and Optimization Of Dynamical Systems, Silchar, India, 2022.
- PC 2021 – 23rd International Conference on Process Control, Strbske Pleso, Slovakia, 2021.
- ICETA 2021 – International Conference on Emerging eLearning Technologies and Applications, Stary Smokovec, High Tatras, Slovakia, 2021.
- ICSTCC 2020 – 23rd International Conference on System Theory, Control and Computing, Sinaia, Romania, 2020.
- ICETA 2020 – International Conference on Emerging eLearning Technologies and Applications, Stary Smokovec, High Tatras, Slovakia, 2020.
- SOCCER 2020 – Symposium on Control, Communication and Embedded System for Robotics, Silchar, India, 2020.
- ICSTCC 2020 – 24th International Conference on System Theory, Control and Computing, Sinaia, Romania, 2020.
- IFAC ACE 2019 – 12th IFAC Symposium on Advances in Control Education, Philadelphia, USA, 2019.
- ICSTCC 2019 – 23rd International Conference on System Theory, Control and Computing, Sinaia, Romania, 2019.
- ICCS 2019 – 20th International Carpathian Control Conference, Krakow, Poland, 2019.
- PCIT 2019 – Pannonian Conference on Advances in Information Technology, Veszprém, Hungary, 2019.
- IFAC PID 2018 – 3rd IFAC Conference on Advances in Proportional-Integral-Derivative Control, Ghent, Belgium, 2018.
- ICETA 2018 – International Conference on Emerging eLearning Technologies and Applications, Stary Smokovec, High Tatras, Slovakia, 2018.
- SMC 2017 – IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada – Poster Session Chair.
- IEEE SMC 2017 – 2017 IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada, 2017.
- 14th International Conference Informatics, Poprad, Slovakia, 2017.
- BMS 2015 – 9th IFAC Symposium on Biological and Medical Systems, Berlin, Germany, 2015.
- CogInfoCom 2015 – 6th IEEE Conference on Cognitive Infocommunications, Győr, Hungary, 2015.
- ICACOMIT 2015 – International Conference on Automation, Cognitive Science, Optics, Micro Electro-Mechanical System, and Information Technology, Bandung, Indonesia, 2015.
- ENCY 2015 – First European Biomedical Engineering Conference for Young Investigators, IPC member, Budapest, Hungary, 2015.
- IFAC WC 2014 – 19th World Congress of the International Federation of Automatic Control, IPC Technical Associated Editor, Cape Town, South Africa, 2014.
- INES – IEEE International Conference on Intelligent Engineering Systems, 2012-.
- SACI – IEEE International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania, 2011-.
- SAMI – IEEE International Symposium on Applied Machine Intelligence and Informatics, Smolenice, Slovakia, 2011-.
- SYSI – IEEE International Symposium on Intelligent Systems and Informatics, Subotica, Serbia, 2010-.
- CHUSER – IEEE Colloquium on Humanities, Science and Engineering Research, 2012-2016.
- LINDI – IEEE International Symposium on Logistics and Industrial Informatics, 2012.

- MACRo– International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, Targu-Mures, Romania, 2010.
- ICC-CONTI – IEEE International Joint Conferences on Computational Cybernetics and Technical Informatics, Timisoara, Romania, 2010.
- SSC 2010 – 8th Student Science Conference, Budapest.
- Budamed’08, Hungarian Biomedical Conference, Budapest, Hungary, 2008.
- Special / Invited Session Organizer:
  - “*Computational and Medical Cybernetics*”, IEEE SMC 2023 – 2023 IEEE International Conference on Systems, Man, and Cybernetics Conference, Maui, Hawaii, USA.
  - “*Computational and Medical Cybernetics*”, IEEE SMC 2022 – 2022 IEEE International Conference on Systems, Man, and Cybernetics Conference, Prague, Czech Republic.
  - “*Transdisciplinary approaches in emerging engineering problems*” IEEE AQTR 2022 – IEEE International Conference on Automation, Quality and Testing, Robotics, Cluj-Napoca, Romania.
  - “*Recent Developments of Engineering Supported Biomedical Sciences*” IEEE CINTI 2021 – 21th International Symposium on Computational Intelligence and Informatics, Budapest, Hungary.
  - “*Recent Developments of Engineering Supported Biomedical Sciences*” IEEE SACI 2021 – 15th IEEE International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
  - “*Computational and Medical Cybernetics*” IEEE SMC 2020 – IEEE International Conference on Systems, Man, and Cybernetics, Toronto, Canada.
  - “*Cyber-Medical Systems*” IEEE SOSE 2020 – IEEE System of Systems Engineering Conference, Budapest, Hungary.
  - “*Cyber-Medical Systems*” IEEE SMC 2019 – IEEE International Conference on Systems, Man, and Cybernetics, Bari, Italy.
  - “*Computational and Medical Cybernetics*” IEEE SMC 2018 – IEEE International Conference on Systems, Man, and Cybernetics, Miyazaki, Japan.
  - “*PID control for Biosystems*” IFAC PID 2018 – 3rd IFAC Conference on Advances in Proportional-Integral-Derivative Control, Ghent, Belgium.
  - “*Modern control methodologies and modeling techniques*” IEEE AQTR 2018 – International Conference on Automation, Quality and Testing, Robotics, Cluj-Napoca, Romania.
  - “*Individualization and optimization of therapies*” IEEE CDC 2017 – 56th IEEE Conference on Decision and Control, Melbourne, Australia.
  - “*Recent advances in biomedical engineering and robotics*” IEEE INES 2017 – 19th IEEE International Conference on Intelligent Engineering Systems, Larnaca, Cyprus.
  - “*Drug Assist Devices for Personalised Healthcare*” IEEE SMC 2017 - IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada.
  - “*Computational and Medical Cybernetics*” IEEE SMC 2017 - IEEE International Conference on Systems, Man, and Cybernetics, Banff, Canada.
  - “*Control and data-driven modelling in biomedicine*” Open Invited Track, IFAC World Congress 2017, Toulouse, France.
  - “*Tensor Product Applications*” IEEE SMC 2016 - IEEE International Conference on Systems, Man, and Cybernetics, Budapest, Hungary.
  - “*Model-based Healthcare I-II*” IEEE SMC 2016 - IEEE International Conference on Systems, Man, and Cybernetics, Budapest, Hungary.
  - “*Women in Engineering*” Workshop, IEEE SMC 2016 - IEEE International Conference on Systems, Man, and Cybernetics, Budapest, Hungary.
  - “*Tensor Product Applications*” IEEE SMC 2015 - IEEE International Conference on Systems, Man, and Cybernetics, Hong Kong.
  - “*Intelligent Healthcare*” IEEE SMC 2015 - IEEE International Conference on Systems, Man, and Cybernetics, Hong Kong.
  - “*Model-based healthcare*”, IEEE SMC 2014 - IEEE International Conference on Systems, Man, and Cybernetics, San Diego, USA.

- “Recent nonlinear control methodologies in medical and biological systems with special focus on anesthesia and diabetes”, IFAC WC 2014 – 19th World Congress of the International Federation of Automatic Control, Cape Town, South Africa.
- “Nonlinear and robust methods for identification and control of biological and medical systems”, IFAC BMS 2012 – 8th IFAC Symposium on Biological and Medical Systems, Budapest.
- “Recent Advances in Biomedical Engineering”, MACRo 2011 – International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, Targu-Mures, Romania.
- “Special Session on Biomedical Engineering”, SACI 2009 – 5th International Symposium on Applied Computational Intelligence and Informatics, Timisoara, Romania.
- “Special Session on Biomedical Engineering”, CONTI 04 – 6th International Conference on Technical Informatics, Timisoara, Romania.

#### **d. Invited speaker**

- Western Michigan University, Kalamazoo, USA, 2024.04.17, *invited speaker*.
- French Institute, Budapest, Hungary, 2022.02.24, *invited speaker*.
- Strathmore University, Nairobi, Kenya, 2021.06.23, *invited speaker*.
- University of Massachusetts Amherst, Amherst, USA, 2020.01.13, *invited speaker*.
- Stanford University, Stanford, USA, 2020.01.14, *invited speaker*.
- NASA Jet Propulsion Laboratory, Pasadena, USA, 2020.01.17, *invited speaker*.
- Hungarian Academy of Sciences, Budapest, Hungary, 2019.05.22, *invited speaker*.
- Celebration of the Hungarian Science, Timisoara, Romania, 2018.11.16, *invited speaker*.
- Celebration of the Hungarian Science, Obuda University, 2018.11.05, *invited speaker*.
- University of Brescia, Brescia, Italy, 2018.10.29, *invited speaker*.
- Gwangju Institute of Science and Technology, Gwangju, South-Korea, 2018.10.02, *invited speaker*.
- Deakin University and IEEE SMC Australia Chapter, 2017.12.12, *invited speaker*.
- National University of Singapore and IEEE Singapore EMBS & SMC, 2017.12.04, *invited speaker*.
- Hungarian Diabetes Association’s 10<sup>th</sup> jubilee Eastern Hungarian Symposium, 2017.10.07, *invited speaker*.
- Óbuda University, 10-year jubilee of the European Research Council’s ERC Starting and Advanced Grant program, 2017.03.03, *invited speaker*.
- Universidad Nacional del Litoral, Santa Fe, Argentina, 2016.11.30, *invited speaker*.
- Óbuda University, University Research and Innovation Center (EKIK) day, 2016.09.22, *invited speaker*.
- Hungarian Academy of Sciences, ERC day, 2016.09.16, *invited speaker*.
- IEEE Ottawa IM, EMB, CI/SMC, CompSoc Chapters, 2016.07.28, *invited speaker*.
- IEEE Singapore EMBS & A\*STAR, 2016.06.06, *invited speaker*.
- Óbuda University Biomaterials Institute opening, 2015.11.12, *invited speaker*.
- IEEE Singapore EMBS, 2015.10.12, *invited speaker*.
- Ghent University, Belgium, International Summer School on Multivariable Control, July 2015, *invited speaker*.
- Young Health Informatics Scientists Organization’s Meeting, Budapest, Hungary, December 2014, *invited speaker*.
- Ghent University, Belgium, International Summer School on Multivariable Control, July 2014, *invited speaker*.
- IEEE Singapore EMBS, 2014.06.01, *invited speaker*.

- Óbuda University, University Research and Innovation Center (EKIK) opening, Budapest, Hungary, 2013.11.19, *invited speaker*.
- Óbuda University Biotech-lab opening, Budapest, Hungary, 2013.11.19, *invited speaker*.
- Institute of Systems Analysis and Computer Science "A. Ruberti" (IASI-CNR), Rome, Italy, 2012 10.22, *invited speaker*.

#### **e. Plenary talks**

- ICHST 2023 – First International Conference on Health Science and Technology, Hanoi, Vietnam, December 2023.
- IWAIA 2023 – 2023 International Workshop on Artificial Intelligence and Applications, Doha, Qatar, December 2023.
- IEEE SMC 2023 – 2023 IEEE International Conference on Systems, Man, and Cybernetics Conference, Maui, Hawaii, USA, October 2023.
- World Congress on Medical Physics and Biomedical Engineering 2022 (IUPESM WC2022), Singapore, June 2022.
- IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2022), Cluj-Napoca, Romania, May 2022.
- 5. Partium conference 2022, Oradea, Romania, May 2022.
- International Workshop on Artificial Intelligence and Applications 2022 (IWAIA 2022), Doha, Qatar, February 2022.
- 7th International Conference on Advances in Control & Optimization of Dynamical Systems (ACODS 2022), Silchar, India, February 2022.
- 11th IFAC Symposium on Biological and Medical Systems (BMS2021), Ghent, Belgium, September 2021.
- Mathematical Modelling and Control for Healthcare and Biomedical Systems (MCHBS 2021), Rome, Italy, September 2021.
- XXVIII Congress of the Hungarian Diabetes Association (MDT 2020), Budapest, Hungary, December 2020.
- 9th International Workshop on Soft Computing Applications (SOFA2020), Arad, Romania, November 2020.
- 43th National Conference for Mathematics, Physics and Informatics lecturers (MAFIOK), Dunaújváros, Hungary, August 2019.
- 18th Scientific Symposium of the John von Neumann University, Kecskemét, Hungary, November 2018.
- 6th International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics (MACRo 2017), Targu Mures, Romania, October 2017.
- 15th IEEE International Symposium on Intelligent Systems and Informatics (SISY 2017), Subotica, Serbia, September 2017.
- 20th IEEE Jubilee International Conference on Intelligent Engineering Systems (INES 2016), Budapest, Hungary, June 2016.
- 11th IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI 2016), Timisoara, Romania, May 2016.
- First European Biomedical Engineering Conference for Young Investigators (ENCY 2015), Budapest, Hungary, May 2015.
- 11<sup>th</sup> IEEE International Symposium on Applied Machine Intelligence and Informatics (SAMI 2013), Herlany, Slovakia, January 2013.

#### **f. Public activities**

- Kando Sport Association president, 2023-.
- John von Neumann 120 commemorative year, board of trustees member, 2023.
- National Student Competition, Computer Science Section, Co-chair, Obuda University, 2019.
- IEEE Region 8 2017 Congress, La Valetta, Malta, 2019.03.15-16.

- IEEE Region 8 2018 Congress, Bgrade, Serbia, 2018.10.20-21.
- founder of IEEE Hungary Section Women in Engineering Affinity Group, 2018.
- founder of IEEE Hungary Section's Rudolf Kalman award, 2017.
- IEEE Hungary Section 30<sup>th</sup> jubilee anniversary organizer, 2017.11.23.
- IEEE Region 8 2017 Congress, Stockholm, Sweden, 2017.03.24-26.
- IEEE POCO 2016 – Annual Panel of Conference Organizers, Montreal, Quebec, Canada, 2016.07.28-30.
- IEEE POCO 2012 – 7th Annual Panel of Conference Organizers, Budapest, Hungary, 2012. 07. 19-21.
- ERASMUS bilateral agreement for higher education:
  - OE (HU) – Simon Fraser University (CAN) (2021-2023);
  - OE (HU) – Gwangju University (SKOR) (2021-2023);
  - OE (HU) – Biskra University (ALG) (2020-2022);
  - OE (HU) – Gwangju University (SKOR) (2017-2019);
  - OE (HU) – Biskra University (ALG) (2017-2019);
  - OE(HU) – Ghent University Belgium (B) (2017-2021);
  - OE(HU) – Antwerpen University Belgium (B) (2016-2021);
  - OE(HU) – University of Cyprus (CY) (2016-2018, 2019-2021);
  - OE(HU) – Sapientia–Hungarian University of Transylvania (RO) (2016-2018);
  - OE(HU) – National University Singapore (SG) (2016-2018);
  - OE (HU) – Universitatea Tehnica Cluj Napoca (RO) (2016-2017);
  - BME (HU) – Universitatea Politehnica Timisoara (RO) (2010-2013).
- TECHNÉ (Hungarian University Teachers Society form Timisoara) founder and vice-president (2002-2004).
- CEEPUS coordinator, H-140, (2002).
- BME, Biomedical Engineering Education web-page editor (2003-2007).

#### **g. Awards, trainings**

- Stanford top 2% scientist, 2023.
- OTDT Gold badge, Hungarian Scientific Youth Council, 2023.
- Dennis Gabor award, Novofer Foundation, 2022.
- Stanford top 2% scientist, 2022.
- ProUrbe award, city of Zsámbék, Hungary, 2021.
- Stanford top 2% scientist, 2021.
- IEEE Outstanding Chapter Award, IEEE Control Systems Society Hungary Chapter, 2021.
- IEEE Outstanding Section Membership Recruitment and Retention Performance, Hungary Section, 2021.
- Geza Hetenyi award, Hungarian Diabetes Association, 2021.
- Public Servant of the Year, Obuda University, Student Union of Obuda University, 2021.
- IEEE Hungary Section Excellence Award, 2020.
- Researcher of the year, Obuda University, 2018.
- EMMI minister award for outstanding research activity, 2018.
- IEEE Outstanding Chapter Award, IEEE SMC Hungary Chapter, 2018.
- IEEE Outstanding Section Membership Retention Performance, Gold Award, 2018.
- IFAC PID 2018 best paper award on biosystems, 2018.
- Dean's award, Obuda University, John von Neumann Faculty of Informatics, 2016.
- Institute award, Obuda University, John von Neumann Faculty of Informatics, Biomatics Institute, 2016.

- János Bolyai Research Fellowship certificate of merit for outstanding research, Hungarian Academy of Sciences, 2016.
- IEEE SMC 2016 best paper nominee (best 5 out of 1506 papers), 2016.
- 20th jubilee IEEE INES conference Budapest, Hungary, certificate of merit for outstanding contributions 1997-2016.
- John von Neumann publication award, Obuda University, 2016.
- Antal Bejczy Student Publication Award as supervisor, International Bejczy Day, Budapest, 2016.
- **ERC StG laureate 2015.**
- XXIII National Student Conference, Engineering Section, certificate of merit for review work, Budapest, 2016.
- Researcher of the year, Obuda University, 2014.
- Dean's award, Obuda University, John von Neumann Faculty of Informatics, 2013.
- János Bolyai Research Fellowship, Hungarian Academy of Sciences, 2012-2015.
- IEEE Hungary Section 25th anniversary award, 2012.
- MATE award (60th jubilee), 2012.
- R+D project knowledge, New Széchenyi plan program, BME, 2012.
- MATE diploma prize, IIIrd prize, 2011.
- BME rector's award for student conference and scientific work coordination, 2009.
- Hungarian Pro Scientia diploma for scientific work coordination, 2009.
- Sanofi-Aventis/ Chinoin science award memorial certificate, 2009.
- SRAIT (Romanian Society of Control Engineering and Technical Informatics) diploma for best graduate 2000.

#### **h. Doctor Honoris Causa, honorary professor**

- "Politehnica" University of Timișoara, Romania, Doctor Honoris Causa, 2022. 05. 26.
- Technical University of Kosice, Slovakia, Doctor Honoris Causa, 2022. 06. 28.
- Sapientia Hungarian University of Transylvania, honorary professor, 2022. 10. 01.
- Tashkent Institute of Chemical Technology, honorary professor, 2023. 04. 27.
- Partium Christian University, Romania, Doctor Honoris Causa, 2023. 05. 11.

#### **i. Visiting research**

- Gwangju Institute of Science and Technology, Gwangju, South-Korea, 17-23 June, 2023.
- Da Nang University, Vietnam, 24 February – 4 March, 2023.
- Queen's University, Kingston, Canada, August 17-23, 2022.
- University Monterrey, Mexico, February 4-14, 2022.
- Strathmore University, Nairobi, Kenya, June 22-26, 2021.
- Tel-Aviv University, Tel-Aviv, Israel, July 7-13, 2019.
- Mohamed Khider University, Biskra, Algeria, June 26 - July 1, 2019.
- Tsinghua University, Department of Mechanical Engineering, Beijing, China, November 29-December 7, 2018.
- University of Brescia, Brescia, Italy, 29-31 October, 2018.
- National University of Singapore, Department of Mechanical Engineering, Singapore, 10-13 October, 2018.
- Gwangju Institute of Science and Technology, Gwangju, South-Korea (Erasmus mobility), 1-5 October, 2018.
- Harvard University, John A. Paulson Schools of Engineering and Applied Sciences, Cambridge, Massachusetts, USA, 6-8 August, 2018.

- Sapientia Hungarian University from Transylvania, Targu Mures, Romania, 25-30 October, 2017.
- Harbin Institute of Technology, Harbin, China, 5-13 January, 2017.
- Universidad Nacional del Litoral, Santa Fe, Argentina (Erasmus mobility), 28 November – 3 December, 2016.
- Technical University of Cluj-Napoca, Cluj-Napoca, Romania (Erasmus mobility), 20 May – 16 May, 2016.
- National University of Singapore, Department of Mechanical Engineering, Singapore, 12-17 October, 2015.
- Tsinghua University, Department of Mechanical Engineering, Beijing, China, March 23-29, 2015.
- National University of Singapore, Department of Mechanical Engineering, Singapore, June – September 2014 (3 months).
- Ghent University, SYSTeMS research group, Belgium, April 3-8, 2014.
- Nanyang Technological University, School of Mechanical & Aerospace Engineering, Singapore, November 20-29, 2011.
- Delft Center for System and Control, Netherlands, Delft, November 20-27, 2008.
- Research Institute for Symbolic Computation (RISC) Linz fellowship, May, 2006.
- Tempus fellowship – Amira GmbH, Duisburg, Germany, February, 2001 (1 month).

## 12. FOREIGN LANGUAGES

- **English** intermediate (FCE diploma);
- **German** beginner;
- **Romanian** native.

## 13. PUBLICATION LIST (MTMT)

[https://m2.mtmt.hu/api/publication?groupBy=publishedYear&cond=authors%3Bin%3B10001992&cond=category.mtid%3B1&ty\\_on=1&ty\\_on\\_check=1&st\\_on=1&st\\_on\\_check=1&url\\_on=1&url\\_on\\_check=1&cite\\_type=2&sort=publishedYear%2Cdesc&sort=firstAuthor%2Casc&size=1000&page=1&labelLang=eng](https://m2.mtmt.hu/api/publication?groupBy=publishedYear&cond=authors%3Bin%3B10001992&cond=category.mtid%3B1&ty_on=1&ty_on_check=1&st_on=1&st_on_check=1&url_on=1&url_on_check=1&cite_type=2&sort=publishedYear%2Cdesc&sort=firstAuthor%2Casc&size=1000&page=1&labelLang=eng)

**Prof. Dr. habil. Levente Adalbert Kovács**

**Budapest, 08 April 2024.**