

## BRIEF CURRICULUM VITAE



### **Dr Zoltán Gál**

Date of birth: 2nd of June 1996

Citizenship: Hungarian

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### *Positions*

- 2023 - professor  
University of Debrecen, Faculty of Informatics, Department of Information Systems and Networks, 4028 Debrecen, Kassai str. 26.
- 2018 - associate professor  
University of Debrecen, Faculty of Informatics, Department of Information Systems and Networks, 4028 Debrecen, Kassai str. 26.
- 2016 - 2018 assistant professor  
University of Debrecen, Faculty of Informatics, Department of Information Systems and Networks, 4028 Debrecen, Kassai út 26.
- 2015 - head  
University of Debrecen Chancellery, Supercomputer (HPC) Center, Kassai str. 26, 4028 Debrecen
- 2006 - 2015 director  
University of Debrecen TEK, Center of Information Technology, Egyetem sqr. 1, 4032 Debrecen
- 2001 - 2005 director  
University of Debrecen, Center of Information Technology, Egyetem sqr. 1, 4032 Debrecen
- 1993 - 2000 head of department  
Lajos Kossuth University, Information Technology Service Center, Egyetem sqr. 1, 4032 Debrecen
- 1991 - 1993 computer scientist  
Lajos Kossuth University, Information Technology Service Center, Egyetem sqr. 1, 4032 Debrecen

### *Studies, further training*

- 19.05.2021 – Acquiring instructor-level skills and authorization for a related university  
24.06.2021 subject: Cisco Certified Internet of Things (IoT), Internet of Things - Connecting Things  
HTTP Alapítvány, Csörsz str. 45, 1123 Budapest
- 19.05.2021 – Acquiring instructor-level skills and authorization for a related university  
19.08.2021 subject: Cisco Certified Internet of Things (IoT), Internet of Things – Big Data  
HTTP Alapítvány, Csörsz str. 45, 1123 Budapest
- 01.07.2021 – Acquiring instructor-level skills and authorization for a related university  
15.08.2021 subject: Cisco Certified Network Professional (CCNP), Switching and Routing  
HTTP Alapítvány, Csörsz str. 45, 1123 Budapest

19.05.2021 – Acquiring instructor-level skills and authorization for a related university  
19.08.2021 subject: Cisco Certified Network Professional (CCNP), IT networks  
HTTP Alapítvány, Csörsz str. 45, 1123 Budapest

30.06.2018 Habilitation, IT sciences  
Faculty of Informatics, University of Debrecen, Kassai str. 26, 4028 Debrecen

30.06.2010 PhD degree, Informatics  
Faculty of Informatics, University of Debrecen, Kassai str. 26, 4028 Debrecen

01.10.2006 – Acquiring instructor-level skills and authorization for a related university  
28.02.2010 subject: Cisco Certified Network Professional (CCNP), IT networks  
Óbuda University, Bécsi str. 96/B , 1034 Budapest

01.09.1999 – Acquiring instructor-level skills and authorization for a related university  
28.02.2006 subject: Cisco Certified Network Associate (CCNA), IT networks  
Óbuda University, Bécsi str. 96/B, 1034 Budapest

01.09.1994 – PhD training (absolatory), news technology, IT, electronics  
30.06.1997 Budapest University of Technology and Economics, Faculty of Electrical  
Engineering and Informatics, Műegyetem rkp. 3-9., 1111 Budapest

15.09.1985 – MSc. certified IT and electrical engineer (IT, electronics, hardware, software)  
29.06.1990 "Politehnica" Technical University of Timisoara, Faculty of Automation and  
Computers, Bulevardul Vasile Parvan, 2., 300223 Timisoara

*Subjects taught in Hungarian and English at the University of Debrecen (1991 – 2022)*

Computer architectures (HU, 30 semesters)  
Programming of Cisco network devices (HU, 26 semesters)  
Cisco Advanced Switching and Routing (HU, 11 semesters)  
High-speed local and urban networks (HU, 13 semesters)  
New trends in hardware development (HU, 1 semester)  
IP-based communication networks and systems (HU, 1 semester)  
Multimedia networks (HU, 1 semester)  
Computer network architectures (HU, 10 semesters)  
Introduction to new network communication technologies (HU, 5 semesters)  
Internet of Things systems and technologies (HU, 6 semesters)  
Management of data network systems (HU, 4 semesters)  
Advanced switching and routing 1 (CCNP1) (EN, 5 semesters)  
Advanced switching and routing 2 (CCNP2) (EN, 4 semesters)  
High Speed Local and Metropolitan Area Networks (EN, 6 semesters)  
Network architectures and protocols (EN, 11 semesters)  
Introduction the new network technologies (EN, 5 semesters)  
Internet of Things systems and technologies (EN, 5 semesters)  
Management of Data Network Systems (EN, 5 semesters)

*Research topics*

Real-time communication (RTC) on wireless broadband  
networks (WiBB)  
Multimedia Communication (MMC) and Quality of Service (QoS)  
Statistical Analysis of High Speed Packet Switching (HSPS)  
Sensor Networks (SN), Internet of Things (IoT)

Distributed Computer Systems (DCS)  
Parallel Computer Architectures (PCA)  
Parallel Computing (PC)

*Information technology scientific projects*

- 2022 - TKP2021-NKTA (UDBD-Health supported by BigData technology development and operation of a data warehouse), Supercomputer (HPC) research group leader
- 2018 - 2021 20248-3/2018/FEKUTSTRAT (BIG DATA: Medical data processing area), Supercomputer (HPC) research group leader
- 2012 - 2014 TÁMOP-4.2.2.C-11/1/KONV-2012-0001 (FIRST: Future Internet research from theory to applications), Internet of Things (IoT) subject area leader
- 2012 - 2014 TÁMOP-4.2.2.C-11/1/KONV-2012-0010 (HPC-NVL: Supercomputer, the National Virtual Laboratory), University of Debrecen consortium partner manager
- 2011 - 2013 TÁMOP-4.1.2.A/1-11/1-2011-0063 (Multiprocessor systems in engineering practice – book writing), project member (book writer)

*Information technology system projects*

- 2017 - 2019 InnoHPC H2020 EU international supercomputing service for TransDanube Program countries, expert member
- 2010 - Supervision of the supercomputer system of the University of Debrecen, technical leader
- 2011 - 2014 HURO/1101 international IT project with the Technical University of Timisoara (20 Gb/s institutional firewall, 200 WiFi APs, IP streaming), technical manager of the University of Debrecen consortium leader
- 2010 - 2012 HURO/0901/265/1.2.3 international ICT project: University of Debrecen and the University of Oradea (outdoor and indoor WiFi system, 250 AP; institutional multimedia and streaming studio), technical manager of the University of Debrecen consortium leader
- 2009 - 2010 Development of the supercomputer (HPC) center of the University of Debrecen (data center room, HPC procurement), technical coordinator
- 2009 - 2012 HURO/0802/012\_AF international ICT project: University of Debrecen and University of Oradea (VPN; indoor WiFi, 150 AP; over Internet internal and inter-institutional telephone system), technical manager University of Debrecen consortium leader
- 2004 - 2008 University of Debrecen institutional internal VoIP/IP telephone system design and implementation, technical expert
- 2006 - 2007 HEFOP 4.1.2 University of Debrecen GE / 10 GE network design and development, technical expert
- 2001 - 2005 Design and development of the optical and galvanic network of the University of Debrecen, technical expert
- 2001 - 2004 Design and development of Debrecen Communication and Internet eXchange (DCIX), mastermind and designer
- 1997 - 1999 Design and development of the ATM backbone network of Debrecen University Association, technical expert
- 1994 - 1998 Fiber Distributed Data Interface (FDDI) and optical city network of Universitas Debrecen, operation and technical executive

- 1992 - 1999 Planning, Internet integration and operation of Lajos Kossuth University local network, technical expert
- 1991 - 1992 Development of Lajos Kossuth University BITNET/EARN/Internet mail system, technical executive

*Language skills*

First language Hungarian

Other languages

English  
Romanian  
French

Comprehension	Speaking		Writing	
	Listening	Reading		Conversation
C1	C1	C1	C1	C1
C2	C2	C2	C2	C2
A1	A1	A1	A1	-

*Membership in national professional organizations*

- 2022 - National Supercomputer (HPC) Competence Center, Professional representative of the University of Debrecen
- 2018 - IEEE Hungary Joint Chapter of Industrial Electronics and Robotics & Automation Societies, member
- 2015 - Hungarian Academy of Sciences Public Board Technical Sciences Department, member
- 2005 - 2014 HUNGARNET, board member
- 2005 - 2016 National Information Infrastructure Development Program (NIIFP) Ethics Committee, member
- 2002 - 2016 National Institute for Information Infrastructure Development (NIIFIP) Networkshop Conference, Program Committee, member
- 2001 - 2016 National Information Infrastructure Development Program (NIIFP), Technical Council, member

*Memberships in international professional organizations*

- 2017 - 2018 European Committee EuroHPC Program, Hungarian representative
- 2015 - Institute of Electrical and Electronic Engineering (IEEE), Internet of Things (IoT) Society, member
- 2013 - 2014 Internet of Things European Research Cluster (IERC), Hungarian representative
- 1999 - Cisco Network Academy Program registered CCNA/CCNP instructor
- 1997 - Institute of Electrical and Electronic Engineering (IEEE), Communication Society, member

*Publication activity*

- Number of scientific publications: 21
- ICT conference presentations: 146
- Book, chapter of book: 5
- Független hivatkozások száma: 156

URL of MTMT database:

<https://vm.mtmt.hu/www/index.php?AuthorID=10031874>

URL of Research Gate: [https://www.researchgate.net/profile/Zoltan\\_Gal](https://www.researchgate.net/profile/Zoltan_Gal)

URL of Google Scholar:

[https://scholar.google.hu/citations?user=AUb7\\_8EAAAAJ&hl](https://scholar.google.hu/citations?user=AUb7_8EAAAAJ&hl)

URL of iDEa Academic Profiles of the University of Debrecen:

<https://tudoster.idea.unideb.hu/hu/tudomany/ZGAL>

*Public activity*

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|-------------|--|
| 2001 - 2005 | Rector's Council of the University of Debrecen, member   |
| 2001 - 2005 | University Council of the University of Debrecen, member |
| 2001 - 2005 | University of Debrecen IT Committee, co-chairman         |

*Professional awards*

- |      |  |
|------|--|
| 2024 | László Kalmár award of the John von Neumann Association  |
| 2023 | CNAP NetAcad award   |
| 2022 | HUNGARNET Association award  |
| 2021 | Certificate of recognition from the OTDK (National Scientific Student Conference) Informatics Science Review Committee |
| 2021 | University of Debrecen Faculty of Informatics award  |
| 2013 | Certificate of appreciation from the President of the University Faculties of the University of Debrecen               |
| 2013 | Acknowledgment certificate of Transylvanian Hungarian Technical and Scientific Society                                 |
| 2009 | Hungarian Communication and Information Science Association "Pollák-Virág" award                                       |
| 1997 | Certificate from the Debrecen Committee of the Hungarian Academy of Sciences   |

Date: 8<sup>th</sup> March 2024

Dr. Gál Zoltán