Professional CV

Szabolcs Gyimóthy PhD, dr. Habil, DSc
MSc electrical engineering
associate professor
head of department

Budapest University of Technology and Economics
Faculty of Electrical Engineering and Informatics
Department of Broadband Infocommunications
and Electromagnetic Theory

Positions

- BME Dept. of Broadband Infocommunications and Electromagnetic Theory
  - associate professor, head of department 2021-
  - associate professor 2006-
  - assistant professor 2004-2006
  - teaching assistant 2003-2004
- BME Dept. of Electromagnetic Theory
  - teaching assistant 1997-2003

Qualification

- Doctor of Science 2021
  Hungarian Academy of Sciences
- Habilitation 2014
  Faculty of Electrical Engineering and Informatics, BME
- PhD 2004
  Faculty of Electrical Engineering and Informatics, BME
- MSc Electrical Engineering 1994
  Faculty of Electrical Engineering and Informatics, BME

Languages

Reliable English and German

Research fields

- Computational electromagnetics, inverse problems and non-destructive testing, material modeling (hysteresis, homogenization), wireless power transfer

Teaching activity

- Giving lectures and seminars in Hungarian, English and German language, in the following topics: networks, signals and systems; electromagnetic fields; numerical simulation of electromagnetic fields; relativistic electrodynamics; wireless power transfer.
- Working out and coordinating subjects, teaching materials, etc.
- Supervising MSc and BSc thesis works; working in Scientific Students' Associations
- Supervising PhD students (currently one is supervised, one obtained the degree, and one absolved without degree)

Publication

- 122 scientific publications, of which 49 appeared in reviewed journals having IF; among them 1 D1-ranked, 14 Q1-ranked and 14 Q2-ranked articles
- 376 independent citations, the h-index for independent citations is 10
- The full list of publications is available in the MTMT repository via https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=authors10041274

Scholarships

- Université Paris Sud 11, France (visiting professor, 1 month) 2007
- Fukuyama University, Japan (3 months) 2000-2007
- Bolyai János Scholarship of the Hungarian Academy of Sciences 2004-2006

Professional public activities

- Membership in domestic organizations: Council of the Faculty of Electrical Engineering and Informatics, Committee on Electrical Engineering of the Hungarian Academy of Sciences
- Membership in international organizations: International Compumag Society, Management Committee of EU COST Action IC1301 "WiPE", Management Committee of EU COST Action CA18223 "SyMat"
- International conferences: ENDE 2000 (LOC member), COMPUMAG 2013 (TPC co-chair), ENDE 2020 (TPC chair)
- Journal reviews: IEEE Transaction on Magnetics, COMPEL

Prizes

- "Excellent lecturer of the Faculty", gold degree 2017
- "Outstanding teacher of the Faculty" (Students' Representation) 2013
- Dean's Commendation for "Excellent Work for the Faculty" 2011
- "The best teacher" (Students' Representation) 2000
- "Pro Scientia" gold medal (National Scientific Students' Associations) 1993

Research projects

- OTKA 132974 Massive data structures for describing the physics of millimeter-wave scattering (senior researcher) 2020-
- OTKA 111987 Optimization of a magnetic hysteresis measurement-based nondestructive inspection method and its application in materials science 2014-2018
- OTKA 105996 Surrogate modeling for the solution of electromagnetic inverse problems (senior researcher) 2012-2015
- French-Hungarian Bilateral S&T Coop., FR 1/2008 Application of optimized database of experiments and statistical data fitting methods for electromagnetic non-destructive testing (project coordinator) 2009-2010
- OTKA T-049389 Investigation of Electromagnetic Field Problems on Large Scale (researcher) 2005-2008
- GVOP-3.1.1.-2004-05-0452/3.0 Electromagnetic Reading System of Laser Marked Logistic Bar Codes (researcher) 2005-2007
- OTKA T-035264 Detection of the degradation of structural materials by electromagnetic nondestructive methods (participant) 2001-2004
- OTKA F-030570 Pulsed eddy current testing method based on a new measurement principle (principal investigator) 1999-2002
- OTKA T-023559 Novel magnetic field measurement principle in eddy-current material testing (participant) 1997-2000
- EU INCO COPERNICUS ERBIC-15-CT-960703 Magnetic Non-destructive Testing (participant) 1997-2000

16 May 2022