

CURRICULUM VITAE

BÁLINT NÉMETH





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PERSONAL DATA

Date of birth: 02.04.1981.
Nationality: Hungarian
Married with child

EDUCATION

- 2004-2007 
Budapest University of Technology and Economics (BME)
Faculty of Electrical Engineering and Informatics Ph.D. student
- 1999-2004 
Budapest University of Technology and Economics
Faculty of Electrical Engineering and Informatics
Majoring in Electrical Engineering, Field of Electrical Power Systems, Field of Electrical Informatics

PROFESSIONAL EXPERIENCES

- 2009- 
OVIT ZRt. (National Power Line Company)
Developmental advisor
- 2007- 
Budapest University of Technology and Economics (BME)
Faculty of Electrical Engineering and Informatics
Department of Electric Power Engineering, **Lecturer**
Head of High Voltage Laboratory
- 2007-2009 
OVIT ZRt. (National Power Line Company)
Diagnostics Specialist
Project Manager of KarMen
- 2004- 
SHOCK Technologies Ltd.

Expert, Independent Scientific Consultant: Electromagnetic Compatibility, Industrial Electrostatics, Lightning, Electromagnetic Field Problems, Biological Effects of Electromagnetic Fields, Overvoltage and Environmental Protection, Live Line Maintenance

2006- BME Department of Electric Power Engineering
Research and Development Project Manager
Lightning protection, Dielectric insulation, transformer diagnostics (DGA, Cu₂S, RVM, on-line), asset management, insulating materials, Electromagnetic Compatibility EMC/ESD, EMP, EMI, Live Line Maintenance

SCIENTIFIC AND PROFESSIONAL ACTIVITY

- ◆ 2003: Analysis of the main processes leading to high-voltage lines' faults through the three years fault statistics, Scientific Student Circle (TDK), II. Place
- ◆ 2004: The Regional and Time Distribution of Data Registered in Hungary between 1999-2003 by the SAFIR Lightning Observation System, 'Elektrotechnika' journal, 10/2004, pp.: 285-288
- ◆ 2004: Analysis of the main processes leading to power blackouts, 'Elektrotechnika' journal, 7-8/2004, pp.: 207-209
- ◆ 2004: General Characterization of the Lightnings in the Carpat-basin (Authors: Bálint Németh, Sándor Szonda MVM Rt., Ferenc Wantuch OMSZ), *QUATERLY JOURNAL OF THE HUNGARIAN METEOROLOGICAL SERVICE*, 11/2004
- ◆ 2004: A presentation on Scientific Conference of Presidents & Secretaries of Local Sub-Organizations of Hungarian Electrotechnical Association in Pécs, 23-24.04.2004.
- ◆ 2004: Analysis of the main processes leading to high-voltage lines' faults through the four years fault statistics, a presentation on National Scientific Conference of Hungarian Electrotechnical Association in Visegrád, Hungary, 25-27.08.2004.
- ◆ 2004: Analysis of the main processes leading to power blackouts, V. ENELKO International Conference in Kolozsvár, Romania, 8-10.10.2004.
- ◆ 2004: Analysis of the main processes leading to high-voltage lines' faults through the four years fault statistics, XV. Lightning Protection Conference in Budapest, 02.11.2004.
- ◆ 2005: The dependence of the expectable number of transmission line faults on the degree of the compactness, Authors: Bálint Németh, Péter Handl, 'Elektrotechnika' journal, 3/2005
- ◆ 2005: How to Use Lightning Detection in the Examination of Power Line Faults?, 'The 3rd International Scientific Symposium ELEKTROENERGETIKA 2005 in Stará Lesná (Slovakia), 21-23.09.2005, ISBN 80-8073-305-8 Authors: Bálint Németh, Attila Gulyás
- ◆ 2005: New Preventive Methods in the Lightning Protection of Power Lines and Systems, PSC 2005 International Scientific Conference in Timisoara, Romania, 3-4.11.2005, ISSN 1582-7194, Authors: Bálint Németh, Attila Gulyás, István Berta Dr.
- ◆ 2005: Preventive methods in modern lightning protection, XVI. Lightning Protection Conference in Budapest, Authors: Bálint Németh, Attila Gulyás
- ◆ 2005: Primary, secondary and preventive lightning protection, Electro-Tech International Conference in Budapest, 14-18.11.2005, Authors: Bálint Németh, Attila Gulyás
- ◆ 2006: Advanced ESP modeling in air pollution control, World Energy Engineers Congress, Washington (USA), 13-25.09.2006. Authors: Bálint Németh, Tamás Iváncsy

- ◆ 2006: Application of Preventive Measures in Lightning Protection, 28th International Conference on Lightning Protection, Japan, Kanazawa, 18-22.09.2006, Authors: Bálint Németh, Attila Gulyás, Sándor Szonda, Dr. István Berta
- ◆ 2006: Lightning Protection of Wind Generators, Energy Saving and Renewable Energy Hungarian-Korean Joint Seminar, Budapest, Hungary, 11-12.10.2006, Authors: Bálint Németh, Dr. Norbert Szedenik, Attila Gulyás, Dr. Tibor Horváth
- ◆ 2007: Advanced risk analysis of systems endangered by ESD, IOP Institute of Physics, Electrostatics 2007 International Conference, Oxford, England, 25-29.03.2007, Authors: Dr. István Kiss, Bálint Németh, Dr. Norbert Szedenik, Attila Gulyás, Dr. István Berta
- ◆ Kiss I., Németh B., Szedenik N., Gulyás A., Berta I.: Advanced risk analysis of systems endangered by ESD, Journal of Physics (Institute of Physics), Electrostatics 2007, 2007. 03. 25-29, Oxford, UK 2008 J. Phys.: Conf. Ser. 142 012033 (4pp) doi: 10.1088/1742-6596/142/1/012033
- ◆ 2007: Efficiency of lightning detection systems in preventive lightning protection, International Youth Conference On Energetics 2007, Budapest, 30.05-01.06.2007 Authors: Bálint Németh, Attila Gulyás, Dr. István Kiss, Dr. István Berta
- ◆ 2007: Increasing Safety in Live Line Maintenance Applying Preventive Lightning Protection, 13th International Conference on Atmospheric Electricity, Peking (China), 13-17.08.2007, Authors: Bálint Németh, Attila Gulyás, Dr. István Berta
- ◆ 2007: Importance of Forecasting in Preventive Lightning Protection, 13th International Conference on Atmospheric Electricity, Peking (China), 13-17.08.2007, Authors: Attila Gulyás, Bálint Németh, Dr. István Kiss
- ◆ 2007: Practical Use of Preventive Lightning Protection, 15th International Symposium on High Voltage Engineering, Ljubljana (Slovenia), 27-31.08.2007., Authors: Bálint Németh, Attila Gulyás, Dr. István Kiss, Dr. István Berta
- ◆ 2008: Investigating Copper Sulphide Deposition in Hungarian Transformer Oils, Hungarian Diagnostics Conference 2008, Egerszalók (Hungary), 23-25. 04. 2008, Authors: Szilvia Laboncz, Bálint Németh
- ◆ 2008: The cost effective lightning protection for live line workers, 9th International Conference on Live Maintenance, Torun (Poland) 4-6.06.2007, Authors: Bálint Németh, Dr. István Kiss, Dr. István Berta
- ◆ 2008: Copper Sulphide in Insulation of Power Transformers, 'Elektrotechnika' journal, 7-8/2008, pp.: 18-21., 2008, Authors: Szilvia Laboncz, Bálint Németh, Gusztáv Csépes
- ◆ 2008: Preventive lightning protection for live line workers, IEEE International Symposium on Electrical Insulation, Vancouver (Canada), 8-11.06.2008., Authors: Bálint Németh, Dr. István Kiss, Dr. István Berta
- ◆ 2008: Complex diagnostic methods for lifetime extension of power transformers, IEEE International Symposium on Electrical Insulation, Vancouver (Canada), 8-11.06.2008., Authors: Bálint Németh, Tibor Benyó, Dr. Gábor Woynárovich, Gusztáv Csépes
- ◆ 2008: Complex Examination of a Cable Terminal Failure, IEEE International Symposium on Electrical Insulation, Vancouver (Canada), 8-11.06.2008., Authors: Zoltán Ádám Tamus, Bálint Németh, István Kiss, Richárd Cselkó, István Berta
- ◆ 2008: Effect of Voltage Stress on Diagnostic Parameters of Low Voltage Cables, IEEE International Symposium on Electrical Insulation, Vancouver (Canada), 8-11.06.2008., Authors: Zoltán Ádám Tamus, Bálint Németh, István Berta

- ◆ 2008: Lightning protection of open air mass performances, 29th International Conference on Lightning Protection, 23-26.06.2008, Uppsala (Sweden), Authors: Bálint Németh, Dr. István Kiss, Dr. István Berta
- ◆ 2008: Complex diagnostic methods and on-site HV tests of power transformers, DISEE 2008, Stara Lesna (Slovakia), 17-19.09.2008 Authors: Bálint Németh, Attila Vámos, András Jáger, István Kispál
- ◆ 2008: Oil Corrosion and Cu₂S Deposition in Power Transformers, DISEE 2008, Stara Lesna (Slovakia), 17-19.09.2008 Authors: Szilvia Laboncz, Bálint Németh, Gusztáv Csépes
- ◆ 2009: Construction, Operation and Maintenance of the Hungarian 750, 400 and 220 kV Grid among Open Market Environment, Incorporating Live Working into a Variety of Maintenance and Troubleshooting Methods, CITTES 2009, 22-24.04.2009, Buenos Aires (Argentina), Authors: Aladár Kimpián, Bálint Németh, Dr. István Berta
- ◆ 2009: Condition Monitoring of Power Transformers using DGA and Fuzzy Logic, 2009 IEEE ELECTRICAL INSULATION CONFERENCE, 31.05-03.06.2009., Montreal (Canada), Authors: Bálint Németh, Szilvia Laboncz, Dr. István Kiss; ISBN 978-1-4244-3916-1
- ◆ 2009: Németh B., Kiss I.: Application of fuzzy logic based expert system in preventive lightning protection, 11th International Conference on Electrostatics 2009, JOURNAL OF ELECTROSTATICS, Volume 67, Issues 2-3, May 2009, pp. 477-481
- ◆ Gulyás A., Németh B., Kiss I., Berta I. Introducing dynamic protection methods into the SCOUT system. International Youth Conference on Energetics 2009. Budapest, Magyarország, 2009.06.04-2009.06.06. pp. 1-5. Paper 5B1.
- ◆ 2010: Németh B. Laboncz Sz., Kiss I., Csepes G.: Transformer Condition Analyzing Expert System Using Fuzzy Neural System, IEEE International Symposium on Electrical Insulation, San Diego, 6-10 June 2010, ISBN: 978-1-4244-6300-8
- ◆ 2010: A. Gulyás, J. Mäkelä, B. Németh, V. Cooray, I. Kiss, I. Berta: LOCAL DETECTORS IN PREVENTIVE LIGHTNING PROTECTION, 30th International Conference on Lightning Protection, Cagliari –Italy,
- ◆ 2011: Németh B., Csépes G., Vörös Cs.: Applicability of the Dielectric Response Methods of Diagnostics of Power Transformers, IEEE IEEE ELECTRICAL INSULATION CONFERENCE, 2011.06.05-2011.05.08, Annapolis (USA-MD), ISBN: 978-1-4577-0276-1
- ◆ 2011: Németh B, Kimpián A., Berta I., Meixner J.: Dr. Béla Csikós LLM Education Center in Hungary, 10th ICOLIM, 31.05-02. 06. 2011, Zagreb – Croatia
- ◆ 2011: Tamus Z. Á., Németh B., Kimpián A., Kiss I., Berta I.: Examination of time-varying magnetic fields exposure of live line workers, 17th ISH, 22-26.08.2011, Hannover- Germany
- ◆ 2011: Németh B, Vörös, C., Cselkó, R., Göcsei, G.: New method for improving the reliability of dissolved gas analysis, Conference on Electrical Insulation and Dielectric Phenomena, CEIDP. Cancún, Mexikó, 2011.10.16. pp. 296-301. Paper 6232655.
- ◆ 2012: A. Gulyás, I. Kiss, B. Németh, I. Berta: Issues of risk in non-permanent lightning protection methods, ICLP 2012, Vienna Austria, 2-7.09.2012.
- ◆ 2012: G. Csépes, B. Németh, Cs. Vörös: Practicable Expert System for the Improved Interpretation of Dielectric Response Diagnostic Methods of Power Transformers, CIGRÉ Paris Session 2012, France, 27-31.08.2012

- ◆ 2012: C. Vörös, B. Németh, S. Szabo, I. Berta: Diagnostic Evaluation Of Power Transformers By An Expert System, IEEE ISEI 2012, Puerto Rico, 10-13.06.2012, ISBN: 978-1-4673-0486-3
- ◆ 2012: KEYNOTE: G. Gocsei, B. Nemeth, Z.A. Tamas, I. Kiss,: Face Protection Investigation Against Electric Field On Live Line Workers, IEEE ISEI 2012, Puerto Rico, 10-13.06.2012, IEEE, pp. 535-539.(ISBN: 978-1-4673-0486-3)
- ◆ 2012: G. Csepes, B. Németh, B. Mészáros, I Kispál: QUASI-INTELLIGENT OFF- AND ON-LINE TRANSFORMER MONITORING – HUNGARIAN EXPERIENCES WITH TraMoniS SYSTEM, CAVTAT – Cigré Croatia, 16-19.05.2012.
- ◆ 2012: Németh B, Göcsei G, Kiss I, Tamas Z Á: Vezetőképes öltözetek villamos paramétereinek vizsgálata, ELEKTROTECHNIKA 105:(10) pp. 15-19. (2012)
- ◆ 2013: B. Németh, G. Göcsei: Investigation of different conductive clothing's shielding efficiency, CITTES 2013, Concordia – Argentina, May 2013
- ◆ 2013: B. Németh, G. Göcsei, D. Tarcsa: Extra low frequency electric and magnetic fields during live-line maintenance, IEEE EIC 2013, 2-5 June 2013, Ottawa – Canada, #172, ISBN Number 978-1-4673-4739-6,
- ◆ 2013: Cs. Vörös, B. Németh, G. Csépes, I. Berta: Investigation of complex, in-homogenous insulation system with multiple time constant by recovery voltage measurement (RVM), IEEE EIC 2013, 2-5 June 2013, Ottawa – Canada, #173, ISBN Number 978-1-4673-4739-6

ACTIVITIES / MEMBERSHIPS

- ◆ 2003 - 2007: *President* of Budapest University of Technology and Economics' Student Association of Energy
- ◆ 2007 - : *Honorary President* of Budapest University of Technology and Economics' Student Association of Energy
- ◆ 2004 - 2006 : *President* of Hungarian Electrical Association's Junior Committee
- ◆ 2005 - : *President* of Association of Energy Engineers Hungarian Student Chapter
- ◆ 2007, 2008, 2009: Hungarian Power Companies Ltd. ***Young Researcher Fellowship***
- ◆ 2008: Hungarian Energy Management Scientific Association: ***Energy Management Award***
- ◆ 2008: International Conference on Lightning Protection: ***Young Scientist Award***, Uppsala Sweden
- ◆ 2009-: *Vice-President* of Association of Energy Engineers Hungarian Chapter
- ◆ 2009-2010: *President* of IEEE Hungarian Student Branch
- ◆ 2010-: *IEEE Gold Appointed Member*
- ◆ 2009-: *Cigré WG A2-40 member (Copper sulphide long-term mitigation and risk assessment) member*
- ◆ 2010-: *Cigré WG A2-43 member (Transformer bushings reliability) member*
- ◆ 2010-: *Cigré WG D1 D1-39 member (Methods for Diagnostic/Failure Data Collection and Analysis)*
- ◆ 2011-: *Cigré D1/A2.47 member (New frontiers of Dissolved Gas Analysis (DGA) interpretation for power transformers and their accessories),*
- ◆ 2013-: *Cigré A2 (Transformers) SC regular member*
- ◆ 2012-2013: *Chair of LOC Electrostatics 2013*
- ◆ 2012-2014: *Member of LOC ICOLIM 2014*
- ◆ 2013: *CITTES 2013 conference (South American live line maintenance conference): **Best paper and presentation Award**, Concordia - Argentina*
- ◆ Hungarian Electrotechnical Association member (2002 -)
- ◆ Hungarian Energy Management Scientific Association member (2002 -)
- ◆ Hungarian Energetic Association member (2003 -)
- ◆ BME Student Association of Energy member (2002 -)

- ◆ Association of Energy Engineers member (2005-)
- ◆ IEEE: IAS, PES, DEIS member (2008-)

LANGUAGE SKILLS



Hungarian: native



English: advanced oral national proficiency examination, intermediate complex examination



French: Intermediate national proficiency examinations, fluency

SKILLS / ABILITIES

- ◆ Professional vocation, dynamism and persistence
- ◆ Outstanding analytical ability, Computer skills: Ms Windows, Ms Office, Internet, E-mail, programming languages: Pascal, Matlab, EMTP simulator, Fuzzy logic
- ◆ Good interpersonal skills, good communication skills, open personality, honesty
- ◆ Driving license, category 'B' (since 1998), Driving license for craft boat (since 2007)

Hobbies: travelling, skiing, ice-hockey, tennis, dancing