

PERSONAL INFORMATION

Gavrilaş Mihai



Str. G. Ibrăileanu, nr. 6, bl. 7, sc. A, ap.2, 700512, Iași, România

+40232 278683, int. 1181 +40723 625279

mgavril@tuiasi.ro

<http://mihai-gavrilas.ieeia.tuiasi.ro/>

Sex Masculin | Date of birth 06/02/1959 | Nationality Română

JOB APPLIED FOR POSITION

Consiliul Național de Atestare a Titlurilor și Certificatelor Universitare, Comisia de Inginerie Energetică

WORK EXPERIENCE

2012 - 2016
2016 - present

CNATDCU – “Power Engineering” Committee - member
CNATDCU – “Power Engineering” Committee - president

- Human resources quality, evaluation of doctoral and habilitation thesis, elaboration of the minimum criteria system for conferring the habilitation certificate and didactic titles for higher education.

Business or sector Higher education and research

2016 - present

Head of “Power Engineering” Department

POWER SYSTEM Department at „Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania (www.tuiasi.ro)

- Management for higher education and research in power engineering.

Business or sector Higher education and research

1999 - present

Professor

„Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania (www.tuiasi.ro)

- Higher education and research in power engineering; reading courses such as: „Power Systems”, „Power Transmission and Distribution”, „Systems with Artificial Intelligence”, „Power System Control and Stability”, „Electricity Markets: Management and Regulation”

Business or sector Higher education and research

1995 - 1999

Associate Professor

„Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania (www.tuiasi.ro)

- Higher education and research in power engineering; reading courses such as: „Numerical Methods in Power Systems”, „Power Transmission and Distribution”, „Intelligent Systems for Power Systems Modelling”,

Business or sector Higher education and research

1991 - 1995

Assistant Professor

„Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania (www.tuiasi.ro)

- Higher education and research in power engineering; reading courses such as: „Numerical Methods in Power Systems”, „Power Transmission and Distribution”, „Computer Applications for Electrical Networks Design and Operation”

Business or sector Higher education and research

1990 - 1991

Assistant

„Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania (www.tuiasi.ro)

- Higher education and research in power engineering; laboratory for „Electrical Networks”, „Power Transmission and Distribution”, „Computer Programming”

- 1987 - 1990 **Business or sector** Higher education and research
Substitute Assistant
 „Gheorghe Asachi” Technical University of Iasi, 51 D. Mangeron Blvd., Iasi, 700050, Romania
www.tuiasi.ro
- Higher education and research in power engineering; laboratory for „Electrical Drives” „Electrical Networks”, „ Power Transmission and Distribution”
- 1985 - 1987 **Business or sector** Higher education and research
Design engineer
 Institute for Studies and Power Engineering (last name Termoproiect), 145 Pacurari Str., Floor 1, Iasi, 700107, Romania
- Design for electric networks, power substations and power plants.
- 1984 - 1985 **Business or sector** Energy
Field engineer
 Trustul de Antrepriza Generală Energomontaj București, Brigada PIF Iași-Holboca, Calea Dorobantilor nr. 103-105, Bucharest, 010561, Romania
- Power plants and power substations construction.
- Business or sector** Energy

EDUCATION AND TRAINING

- 2006 **Postgraduate diploma in Energy Audits**
 „Gheorghe Asachi” Technical University of Iasi
- Energy management systems for industrial customers and electric utilities.
- Oct – Dec 2001 **Specialization in "Electricity Markets"**
 Kingston University, United Kingdom
- Electricity trading, energy planning, energy markets
- Nov 1994 – Feb 1995 **Specialization in "Artificial Intelligence"**
 University of Orleans, France
- Artificial Intelligence techniques – Artificial Neural Networks.
- 1989 - 1994 **Doctor of Philosophy in Electrical engineering**
 „Gheorghe Asachi” Technical University of Iasi
- PHd thesis: Electric transmission lines with higher transmission capacity – structural and operational optimization
- 1979 - 1984 **Master in Electrical engineering**
 „Gheorghe Asachi” Technical University of Iasi
- Electrical Engineering, Power Systems Engineering
- 1970 - 1978 **High school Diploma**
 National Collage „Costache Negruzzi” din Iași
- High School

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2- Proficient user	C2- Proficient user	C1- Proficient user	C2- Proficient user	C2- Proficient user

	French	C1- Proficient user	C2- Proficient user	B2- Independent user	B2- Independent user	C1- Proficient user
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Communication skills Good competences in teamwork gained through my experience related to leading or participating in national and international research teams.
 Good abilities to adapt to multicultural environments gained through my educational and work experience abroad (France, United Kingdom, Italy, and Spain).
 Good communication skills gained through my experience as an educator.

Organisational / managerial skills

- leadership (currently, I am responsible for a team of 18 people)
- good experience in project management - director in more than 15 grants and complex research projects with power industry partners – coordinating teams with more than 6 members) (2004-2020)
- good experience in organizing activities in quality assurance in higher education; ARACIS expert - over 10 missions for the evaluation of different study programs (2006-2008) and an institutional assessment mission (2007).
- member of the Engineering Sciences Committee – CNCSIS (2005-2009).
- Executive Director of the research centre IDENERG - Energy Distribution Engineering, recognized by CNCSIS (2001 - 2009)
- member of the National Register of Expert Evaluators for evaluation and financing of scientific and educational programs.

Job-related skills

- Good command of using modern technologies in education. I am reading courses and working with students in the following technical directions: Power Systems, Computational Intelligence Applications in Power, Energy Markets.
- good command of professional knowledge in areas of scientific research: Energy Efficiency, Renewable Electricity, Dispersed Generation, Energy Management and Load Response Programs, Power Systems Observability and Controllability.
- I was manager or member of the research team in over 55 research projects, among which 11 national research grants, and 5 complex research projects financed by power industry.
- skills in evaluating scientific research projects within national research and development programs coordinated by CNCSIS, ANCS, UEFISCDI etc.

Computer skills

- Good command of MS Office Tools (Word, Excel, Power Point, Access).
- Good command of database management systems (SQL, Access),
- Good command of programming languages (Matlab, Delphi),
- Good command for specialized software applications for power systems analysis (EDSA, DigSILENT, Neplan).

Driving licence ▪ I hold a category B driving licence.

ADDITIONAL INFORMATION

Publications

- **14** books and book chapters in recognized publishing houses and university courses, of which **11** as first or single author.
- **33** papers published in ISI journals and other journals indexed by international databases, of which **12** as first author.
- **73** papers indexed in ISI Proceedings and other international databases, of which **21** as first author.
- **46** papers in journals recognized by CNCSIS, of which **21** as first author.
- **55** papers in proceedings of national and international scientific meetings, of which **31** as first author.
- **10** national grants and **41** research contracts with research institutes, companies, and operators, of which 26 as director.

Publications

Significant publications

- M. Gavrilas, Artificial Intelligence and Applications in Power (in Romanian); Vol. I / II, Ed. Gh. Asachi / Politehniun, Iasi, 2002 / 2005, 320/194 pag., ISBN 973-8292-21-2 / 973-621-116-9.
- M. Gavrilas, Gh. Cârţină, V. Alexandrescu, Gh. Grigoras, O. Ivanov, Load Modelling in Electricity Networks (in Romanian) - Vol. I / II, Ed. PIM / CERMI Iasi, 2006 / 2008, 124 / 116 pag., ISBN 978-973-716-433-4 / 978-973-667-315-3.
- M. Gavrilas, B.C. Neagu, Enhanced metaheuristic search algorithms - Applications in the management of electricity distribution systems, Lambert Academic Publishing, Riga, Latvia, 2020, 140 pag., ISBN: 978-620-2-51263-3

Publications

Significant publications

- M. Gavrilas, I. Rusu, G. Gavrilas, O. Ivanov, Synchronized Phasor Measurements for State Estimation, Revue Roumaine des Sciences Techniques-Serie Electrotechnique et Energetique, Vol. 54, Nr. 4, 2009, pag. 335-344, ISSN 0035-4066.
- M. Gavrilas, Power system control and stability (in Romanian), Ed. Politehniun Iasi, 2011, 300 pag., ISBN 978-973-621-329-8.
- M. Gavrilas, V. Stahie, Cascade hydropower plants optimization with Honey Bee Mating Optimization algorithm, International Review of Electrical Engineering, Vol. 6, Nr. 5, 2011, pag. 2456-2466, ISSN 1827-6660, 1827-6679.
- I. Coroamă, G. Chicco, M. Gavrilas, A. Russo, Distribution system optimisation with intra-day network reconfiguration and demand reduction procurement, Electric Power Systems Research, Nr. 98, 2013, pag. 29-38, ISSN 0378-7796.
- M. Gavrilas, O. Ivanov, G. Gavrilas, Electricity load forecasting based on a mixed statistical-neural-computational intelligence approach, 12th Symposium on Neural Network Applications in Electrical Engineering (NEUREL), Belgrade, Serbia, 25-27 Nov. 2014, Vol. 1, pag. 61-66.
- B. Vicol, M. Gavrilas, O. Ivanov, B. Neagu, Gh. Grigoras, Synchrophasor measurement method for overhead line parameters estimation in MV distribution networks, 16th International Conference on Harmonics and Quality of Power (ICHQP), Bucharest, Romania, 25-28 May 2014, vol. 1, pag. 862-865, ISBN 978-1-4673-6487-4.
- Stăvilă, M. Gavrilas, O. Ivanov, Optimal Power System Stabilizer design using multiple wide-area input signals , 14th International Conference on Environment and Electrical Engineering (EEEIC 2014), Krakow, Poland, 10-12 May 2014, Vol. 1, pag. 34-39, ISBN 978-1-4799-4660-0.
- Al. Kriukov, M. Gavrilas, Smart energy management in distribution networks with increasing number of electric vehicles, 2014 International Conference and Exposition on Electrical and Power Engineering (EPE 2014), Iasi, Romania, 16-18 Oct. 2014, Vol. 1, pag. 1039-1044, 10.1109/ICEPE. 2014.6970067.
- E. Hopulele, M. Gavrilas, P. Atanasoae, Optimal design of a hybrid distributed generation system, 49th International Universities Power Engineering Conference (IUPEC 2014), Cluj-Napoca, Romania, 2-5 Sept. 2014, Vol. 1, pag. 1-6, ISBN 978-1-4799-6556-4.
- Banerjee A., Gavrilas M., Ivanov O., Chattopadhyay S., Reliability improvement and the importance of power consumption optimization in wireless sensor networks, Proc. Of 9th International Symposium on Advanced Topics in Electrical Engineering, ATEE 2015, 7-9 May 2015, Bucharest, Romania, pp. 735-740, ISSN: 2068-7966 (WoS Proceedings).
- Radu Toma, Mihai Gavrilas, Study on Voltage Dynamics in Power Grids with Renewable Energy Sources Integration, Proceedings of 2016 International Conference and Exposition on Electrical and Power Engineering, 20-22 October 2016, Iasi, Romania, ISBN 978-1-5090-6128-0, pp. 760-765 (WoS Proceedings).
- Avishek Banerjee, Mihai Gavrilas, Gheorghe Grigoras, Samiran Chattopadhyay, A Fuzzy Hybrid Approach for Reliability Optimization Problem in Power Distribution Systems, Proceedings of 2016 International Conference and Exposition on Electrical and Power Engineering, 20-22 October 2016, Iasi, Romania, ISBN 978-1-5090-6128-0, pp. 809-814 (WoS Proceedings).
- Neagu Bogdan Constantin, Ivanov Ovidiu, Gavrilas Mihai - Voltage profile improvement in distribution networks using the whale optimization algorithm, 9th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Targoviste, Romania, 29 June-1 July 2017, ISBN:978-1-5090-6458-8, ISSN: 2378-7147, Accession Number: WOS:000425865900081 (WoS Proceedings).
- Gavrilas M., Neagu B.C., Pentiuc R., Hopulele E., Overview on Distributed Generation Integration in Distribution Systems, Proceedings of 2018 International Conference and Exposition on Electrical and Power Engineering (EPE 2018), Iasi, Romania, 18-19 Oct. 2018, pp. 1063-1069, WOS:000458752200208 (WoS Proceedings).

Publications

Significant publications

- Neagu B. C., Gavrilaş M., Pentiu R.D., Hopulele E., Optimal Placement of Energy Storage Systems in Microgrids Using a PSO Based Approach, IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), September 29 to October 2, 2019, Bucureşti, Romania, pp. 1-6 (WoS Proceedings).
- Grigoras G, Gavrilaş M., Neagu B.C., Ivanov O., Triştiu I., Bulac C., An Efficient Method to Optimal Phase Load Balancing in Low Voltage Distribution Network, 9th International Conference on Energy and Environment – CIEM2019, Timisoara, Romania, 17 – 18 octombrie, 2019, pp. 1-6 (WoS Proceedings).
- Ivanov, O.; Neagu, B.-C.; Grigoras, G.; Gavrilas, M. Optimal Capacitor Bank Allocation in Electricity Distribution Networks Using Metaheuristic Algorithms. *Energies*, 2019, 12, 4239. doi: 10.3390/en12224239 (IF=2,707) (revistă WoS).
- Neagu, B.-C.; Ivanov, O.; Grigoras, G.; Gavrilas, M. A New Vision on the Prosumers Energy Surplus Trading Considering Smart Peer-to-Peer Contracts. *Mathematics*, 2020, 8, 235. doi: 10.3390/math8020235 (IF=1,105) (revistă WoS).
- Grigoras, G, Neagu, B. C., Gavrilas, M., Tristi u, I., Bulac, C. (2020). Optimal Phase Load Balancing in Low Voltage Distribution Networks Using a Smart Meter Data-Based Algorithm. *Mathematics*, 2020, doi: 10.3390/math739205 (IF=1,105) (revistă WoS).

Presentations

- Plenary speaker at 9-th WSEAS Electric Power Systems, High Voltages, Electric Machines – POWER ,09, October 17–19, 2009, Genova, Italia.
- Visiting professor: lectures on „Power system stability” –Transilvania University of Braşov, May 2010, May 2011, June 2013.
- Plenary speaker at 11th WSEAS International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering (MMACTEE '10), October 21-23, 2010, Timisoara, Romania.

Projects

- PNCDI II project - Partnerships Program: Intelligent prediction and control of congestion in transmission and high voltage distribution systems; project no. 22126 / 01.10.2008 ([director](#)).
- CNCSIS project: New artificial intelligence techniques and models to develop load studies for efficiently use electricity under electricity market. Grant CNCSIS code 241, subject 13/2006, 26/2007 ([director](#)).
- Complex research project "Gh. Asachi" Technical University of Iasi - E.ON Moldova Distribution: Location of power sources in 110 kV and MV networks from the district of SC E.ON Moldova Distribution S.A. based on the minimum energy loss and consumer-source proximity criterion and study of reactive power compensation to optimize voltage level in 110 kV networks of SC E.ON Moldova Distribution SA, Research contract no. 7405 P / 26.10.2007 ([director](#)).
- Dynamic loading of overhead lines by online assessment of transmission capacity, Research contract no. 912P / 03.07.2012, Transelectrica S.A. Transmission Branch Bacau ([director](#))

Conferences

- Member in the International Program Committee of conferences such as: ECCTD (European Conference on Circuit Theory and Design) 2005 Ireland; ISDA (International Conference on Intelligent System Design and Applications) 2006,China şi 2007, Brasil; ICNC (International Conference on Natural Computation) 2007 China; IEEE Africon 2007 Rep. Of Namibia; WESC 2006 Torino şi 2008 Iaşi, OPTIM (International Conference on Optimization of Electrical and Electronic Equipment), 2010 Brasov; EPE 2004, 2006, 2008, 2010, 2012, 2014 Iaşi, SIELMEN (International Conference on Electromechanical and Power Systems) 2007, Chisinau.
- Conference Chairman: 6-th World Energy System Conference, July 10-12, 2006, Torino, Italia; 7-th World Energy System Conference, June 30 – July 2, 2008, Iaşi, Romania; 9-th Symposium on Neural Network Applications in Electrical Engineering September 25–27, 2008, Belgrade, Serbia; 2009 IEEE PowerTech Conference, June 28–July 2, 2009, Bucureşti, Romania; 9-th WSEAS Electric Power Systems, High Voltages, Electric Machines – POWER ,09, October 17–19, 2009, Genova, Italia; 12th International Conference on Optimization of Electrical and Electronic Equipment, May 2010, Brasov, Romania.

Honours and awards

- IEEE Senior Member since 2013

Memberships

- Member of Power and Energy Society, Institute of Electrical and Electronics Engineers
- Member of Computational Intelligence Society, Institute of Electrical and Electronics Engineers
- Member of Systems, Man and Cybernetics Society, Institute of Electrical and Electronics Engineers