

PERSONAL INFORMATION



Gavrilaş Mihai

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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

1999 - present

**Professor**

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

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

Business or sector Higher education and research

1987 - 1990

**Substitute Assistant**

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

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

Business or sector Higher education and research

1985 - 1987

**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 **Field engineer**

Trustul de Antrepriza Generală Energomontaj Bucureşti, Brigada PIF Iaşi-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 Iaşi

- 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

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 6 people)
- good experience in project management - director in more than 10 grants and complex research projects with power industry partners – coordinating teams with more than 6 members) (2004-2016)
- 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 50 research projects, among which 6 national research grants, and 4 complex research projects financed by power industry.
- good knowledge of quality control procedures (currently I am member of the Quality Assurance Commission of the Electrical Engineering in Iasi).
- 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

- **12** books and book chapters in recognized publishing houses and university courses, of which **9** as first or single author.
- **44** papers published in ISI journals and other journals indexed by international databases, of which **18** as first author.
- **49** papers indexed in ISI Proceedings and other international databases, of which **21** as first author.
- **44** papers in journals recognized by CNCSIS, of which **20** as first author.
- **55** papers in proceedings of national and international scientific meetings, of which **31** as first author.
- **5** national grants and **38** research contracts with research institutes, companies, and operators, of which 23 as director.

**Significant publications**

- M. Gavrilaş, Artificial Intelligence and Applications in Power (in Romanian); Vol. I / II, Ed. Gh. Asachi / Politehniun, Iași, 2002 / 2005, 320/194 pag., ISBN 973-8292-21-2 / 973-621-116-9.
- M. Gavrilaş, Gh. Cârțină, V. Alexandrescu, Gh. Grigoraș, O. Ivanov, Load Modelling in Electricity Networks (in Romanian) - Vol. I / II, Ed. PIM / CERMI Iași, 2006 / 2008, 124 / 116 pag., ISBN 978-973-716-433-4 / 978-973-667-315-3.

## Publications

- M. Gavrilaş, Power system control and stability (in Romanian), Ed. Politehniuum Iași, 2011, 300 pag., ISBN 978-973-621-329-8.
- M. Gavrilaş, I. Rusu, G. Gavrilaş, 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. Gavrilaş, 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. Gavrilaş, 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. Gavrilaş, O. Ivanov, G. Gavrilaş, 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. Gavrilaş, O. Ivanov, B. Neagu, Gh. Grigoraş, 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.
- Stătivă, M. Gavrilaş, 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.
- M. Gavrilaş, O. Ivanov, G. Gavrilaş, REI equivalent design for electric power systems with genetic algorithms, *WSEAS Transactions on Circuits and System*, Vol. 7, Nr. 10, 2008, pag. 911-921, ISSN 1109-2734.
- R. Toma, M. Gavrilaş, The impact on voltage stability of the integration of renewable energy sources into the electricity grids, 2014 International Conference and Exposition on Electrical and Power Engineering (EPE 2014), Iasi, Romania, 16-18 Oct. 2014, Vol. 1, pag. 1051-1054, 10.1109/ICEPE. 2014.6970069.
- Al. Criukov, M. Gavrilaş, 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. Gavrilaş, P. Atanasoae, Optimal design of a hybrid distributed generation system, 49th International Universities Power Engineering Conference (IUPES 2014), Cluj-Napoca, Romania, 2-5 Sept. 2014, Vol. 1, pag. 1-6, ISBN 978-1-4799-6556-4.

## 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 și 2007, Brasil; ICNC (International Conference on Natural Computation) 2007 China; IEEE Africon 2007 Rep. Of Namibia; WESC 2006 Torino și 2008 Iași, OPTIM (International Conference on Optimization of Electrical and Electronic Equipment), 2010 Brasov; EPE 2004, 2006, 2008, 2010, 2012, 2014 Iași, 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, Iași, 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, București, 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