

PERSONAL INFORMATION



Adrian Traian PLESCA

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Sex M | Date of birth 16/04/1972 | Nationality Romanian

WORK EXPERIENCE

from 2015 – to present

**Professor**

Gheorghe Asachi Technical University of Iasi

Str. Prof.dr.doc. Dimitrie Mangeron, 21-23, 700050 Iasi (Romania)

Research: Member of the research team of industrial research contracts. The research subjects: new type of load switch-disconnector for medium voltage; new alloys/materials for M-effect of high breaking capacity fuses; thermal transfer analysis of power electrical equipment.

Teaching: Special Electrical Apparatus, Switching Techniques, Modelling and Simulation of Electrical Apparatus (undergraduate and master specialization)

**Business or sector** Academic and scientific activity

from 2009 – to 2015

**Associate-professor**

Gheorghe Asachi Technical University of Iasi

Str. Prof.dr.doc. Dimitrie Mangeron, 21-23, 700050 Iasi (Romania)

Research: Director of two national research grants and two bilateral grants (China) and member of the research team of 6 grants and research contracts. The research subjects: new types of on-load tap-changers, special fuses; testing devices for low voltage electrical apparatus.

Teaching: Special Electrical Apparatus, Modelling and Simulation of Electrical Apparatus (undergraduate and master specialization)

**Business or sector** Academic and scientific activity

from 2003 – to 2009

**Lecturer**

Gheorghe Asachi Technical University of Iasi

Str. Prof.dr.doc. Dimitrie Mangeron, 21-23, 700050 Iasi (Romania)

Research: Director of a national research grant and member of the research team of 6 grants and research contracts. The research subjects: new types of on-load tap-changers, testing devices for low voltage electrical apparatus.

Teaching: Special Electrical Apparatus, Transient Conditions of Electrical Apparatus, Manufacturing Technology of Electrical Apparatus

**Business or sector** Academic and scientific activity

from 1999 – to 2003

**Assistant-professor**

Gheorghe Asachi Technical University of Iasi

Str. Prof.dr.doc. Dimitrie Mangeron, 21-23, 700050 Iasi (Romania)

Research: Member of the research team of 4 grants and research contracts. The research subjects: testing devices for low voltage electrical apparatus, monitoring and diagnose of electrical equipment

Practical laboratory applications: Electrical Apparatus, Transient Conditions of Electrical Apparatus, Manufacturing Technology of Electrical Apparatus

**Business or sector** Academic and scientific activity

from 1996 – to 1999

**Instructor**

Gheorghe Asachi Technical University of Iasi

Str. Prof.dr.doc. Dimitrie Mangeron, 21-23, 700050 Iasi (Romania)

Research: Member of the research team of 2 grants and research contracts. The research subjects: monitoring and diagnose of electrical equipment, protection of power semiconductor installations.  
 Practical laboratory applications: Electrical Apparatus, Manufacturing Technology of Electrical Apparatus

Business or sector Academic and scientific activity

**EDUCATION AND TRAINING**

from 2015 – to present

**PhD Supervisor in Electrical Engineering**

Gheorghe Asachi Technical University of Iasi (Romania)

Habilitation Thesis: Thermal analysis of power electronic and electrical assemblies

from 2003 – to 2005

**Postdoctoral fellowship type Marie Curie Industry Host Fellowship in the framework of FP5**

Green Power Solutions, Genoa (Italy)

- 3D modelling and simulation of power semiconductor devices, power assemblies; testing of heat sinks in natural and/or forced cooling; test benches to check the thermal contact at power semiconductor assemblies

from 1/04/2000 – to 1/10/2000

**Fellowship within Tempus Jep Program**

Politecnico di Torino, Turin (Italy)

Modelling and simulation of power semiconductor devices, power rectifiers; analysis of current harmonics of power rectifiers; testing of electric fuses

from 1996 – to 2001

**PhD Degree in Electrical Engineering**

ISCED 6

Gheorghe Asachi Technical University of Iasi (Romania)

- Special electrical apparatus; industrial automation; modelling and simulation of electrical apparatus

from 1995 – to 1996

**Master's Degree in Electrical Engineering**

ISCED 6

Gheorghe Asachi Technical University of Iasi (Romania)

- Special electrical apparatus; Finite element method; Special electrical machines; Theory of the electromagnetic field; Vector control of electrical drives

from 1990 – to 1995

**Engineer diploma in Electrical Engineering**

ISCED 5

Gheorghe Asachi Technical University of Iasi (Romania)

- Special mathematics; Physics; Theory of electric circuits; Theory of the electromagnetic field; Theory of the mechanics; Electrical apparatus; Electrical machines; Electrical drives; Programming of the computers; Microprocessors; Computers' control of the industrial processes

from 1986 – to 1990

**High school diploma**

ISCED 3

Dimitrie Cantemir High School, Iasi (Romania)

- Mathematics; Physics; Chemistry; History; Geography; Romanian language and literature; Technical knowledge; English; French; Sport; Drawing

**PERSONAL SKILLS**

Mother tongue(s)

Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
French	B1	B1	A2	A2	B1
Italian	C1	C2	C1	B2	B2
English	C1	C2	C1	C2	C2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
 Common European Framework of Reference for Languages

- Communication skills**
- Readiness of speech (teaching activities performed with students from different years of study);
  - Teamwork skills (research projects that involved the participation of a large number of members from various institutions and companies);
  - Adaptability to different cultural backgrounds (experience gained during the fellowships/research activities and international conferences);
  - Timeliness and efficiency in carrying out different types of tasks (various internal department activities, upgrading laboratories).

- Organisational / managerial skills**
- Coordinator of the programme Alewijnse Training Center Romania (Dutch funding programme), specialized training in the field of power electrical equipment (study group of 24 persons);
  - Supervisor of undergraduate and dissertation projects;
  - Member of the graduation Bachelor Committee (specialization of Electrical Systems);
  - Member of the graduation Master Committee (specialization of Advanced Electrical Systems);
  - Member of the Accreditation Committee of the university study programme "Management, Energy, Environment" for Master specialization in the field of Power Electrical Engineering - 2008;
  - Member of the Accreditation Committee of the university study programme "Management of Energy" for Licence specialization in the field of Power Electrical Engineering - 2013;
  - Member of the Evaluation Committee of the cogeneration group acquisition for the students' campus, Iasi, Romania, 2012 – 2013.
  - Experience in coordinating national and international grants/research projects;

Chairman:

- Sixth International Conference of Electric Fuses and their Applications, ICEFA, Torino, Italy, 1999; Chairman of session 5 – Fuse Operation II;
- IASTED International Conference, Applied Simulation and Modelling, Rodos, Greece, 2006, Chairman of Session: Power and Energy Systems;
- ASME 10<sup>th</sup> Biennial Conference on Engineering Systems Design and Analysis (ESDA 2010), Istanbul, Turkey, 2010, Chairman of session: Thermal Management of Electronic Devices

- Job-related skills**
- Teaching (disciplines):
- Electrical Apparatus; Manufacturing Technology of Power Electrical Equipment; CAD of Electrical Apparatus; Modelling and Simulation of Electrical Apparatus; Protection of Low Voltage Electrical Installations; Switching Techniques; Special Electrical Equipment
- Earned grants as director :
- Modelling and simulation of the current limiting fuses, Capacities, Module III, Bilateral Research Project China - Romania, Contract no. 610/01.01.2013, 2013-2014;
  - Modelling of metal vapor arc for high current interruption in vacuum, Capacities, Module III, Bilateral Research Project China - Romania, Contract no. 515/14.04.2011, 2011-2012;
  - New concepts related to the fuse operating using specific methods of virtual instrumentation, grant no.706/19.01.2009, PNII IDEI, 2009-2011, National Agency for Science, Technology and Innovation;
  - New intelligent device to improve the energy quality using specific methods of virtual instrumentation, CEEX National Programme: Funding Application for Excellences Research Projects. Code project: 5, Contract no: 1489, 2006-2008.

- Computer skills**
- MS Office, OrCAD PSpice, MATLAB, Pro/ENGINEERING, Pro/MECHANICA, LabVIEW

- Other skills**
- **Legal Technical Expert** with the Authorizations from Ministry of Justice, with the specializations of Electrical Engineering (authorization no. 24429052013), Power (authorization no. 34429052013), Industrial Energy (authorization no. 44429052013) and Power Engineering (authorization no. 14429052013);
  - Expert in the project "National Network of Continuous Learning for Teachers from Technical High Schools – CONCORD Programme", ID 61397, 2012;
  - Expert in the project "Specific Qualifications of University Studies in the Field of Electrical Engineering – DOCIS Programme", 2008 – 2011.

- Driving licence**
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ADDITIONAL INFORMATION

- Publications
- Projects
- Conferences
- Honours and awards
- Memberships

Results of academic and research activity:

- 1 Book Chapter published at international Publishing House (Croatia)
- 2 Books published at international Publishing Houses (Germany)
- Books/monographs published at national Publishing House: 5 (4 – first author)
- Handbooks published at national Publishing House: 2 (single author)
- Articles published in ISI indexed journals with Impact Factor: 10 (9 – single author)
- Articles published in international databases journals: 23 (14 – first author)
- Articles published in other journals: 33 (9 – first author)
- Patents (national): 28 (16 – first author)
- Patent international application (US): 1 - first author
- Articles published in proceedings of the conferences indexed in international databases: 19 (16 – first author)
- Articles published in proceedings of other international conferences: 55 (21 – first author)

Research projects/grants:

- 2 bilateral grants (China) – grant director;
- 1 European Reintegration Grant (ERG) – main researcher; Contract no. MERG-7-CT-2005-014990, in the framework of FP6;
- 14 international research contracts (7 contracts - coordinator of the research team);
- 2 national grants – grant director;
- 8 national grants – member of the research team;
- 4 research contracts – coordinator of the research team.

Honours and awards:

- **2 Gold Medals and 2 Silver Medal** at World Exhibition of Invention, Research and Industrial Innovation, Brussels, Belgium, EUREKA, 2001, 2004;
- **Special Prize**, The First International Invention's Day Convention, Bangkok, Thailand, 2008;
- **Gold Medal and Diploma of Excellence** - Jubilee International Exhibition of Research, Invention and Technology Transfer, INVENTICA, Iasi, Romania, 2008;
- **Gold Medal and Excellence Diploma** - 4th International Exhibition of New Technologies, Sevastopol, Ucraina, 2008;
- **Bronze Medal** - 6th International Exhibition of Inventions, Suzhou, China, 2008;
- **Silver Medal** - International Exhibition of Inventions and New Technologies, INVENTIKA, Bucharest, Romania, 2008;
- **Gold Medal** - 4th International Warsaw Invention Show IWIS, 2010;
- **Bronze Medal** - 2nd International Exhibition of Inventions in Slovenia, 2010;
- **Diploma and Genius Medal** - 2nd International Invention Exhibition, Ljubljana, 2010;
- **Bronze Medal** – 2<sup>nd</sup> World Cup of Computer Implemented Inventions, Kaohsiung, Taiwan, 2011;
- **Gold Prize** – Seoul International Invention Fair, Korea, 2011
- **Diploma of Excellence with Fair Medal** – International Fair of Inventions and Practical Ideas, INVENT – INVEST, Iasi, Romania, 2015

**Knight of the International Order of Merit of the Inventors** (Identification Number : 116/2014)

Memberships

Member of International Scientific Committee :

- International Scientific Committee of IASTED Conference on Power and Energy Systems, PES 2008, Baltimore, USA
- International Scientific Committee of IASTED Conference on Applied Simulation and Modeling, ASM 2008, Corfu, Greece; 2009, Palma de Mallorca, Spain; 2011, Crete, Greece; 2012, Naples, Italy
- International Scientific Committee of IASTED Conference on Power and Energy Systems, EuroPES 2009, Palma de Mallorca, Spain; 2011, Crete, Greece; 2012, Naples, Italy
- International Scientific Committee of ICOMOS, International Conference on Modelling and Simulations, 2010, Capri, Naples, Italy
- International Scientific Committee of IASTED Conference on Modelling, Identification and Control, MIC 2016, Innsbruck, Austria
- International Scientific Committee of International Conference on Energy, Power and Electrical Engineering, EPEE 2016, Bangkok, Thailand

Publications  
Projects  
Conferences  
Honours and awards  
Memberships

Member of Promotion Committee for the following teaching positions:

- Associate-professor, Maritime University of Constanta, Romania, 2013
- Assistant-professor, Gheorghe Asachi Technical University of Iasi, Romania, 2014
- Associate-professor, Transilvania University of Brasov, Romania, 2015
- Assistant-professor, Gheorghe Asachi Technical University of Iasi, Romania, 2015
- Lecturer, Gheorghe Asachi Technical University of Iasi, Romania, 2016

Member of the Board of Power Engineering Department, 2016 – 2019

Member of the Board of Faculty of Electrical Engineering, 2016 – 2019

Member of the Senate of Gheorghe Asachi Technical University of Iasi, 2016 - 2019

Professional memberships :

- Athens Institute for Education and Research – Electrical Engineering Research Unit
- Fuse Club
- Marie Curie Fellows Association (MCFA)
- Marie Curie Alumni Association (MCAA)
- Romania Inventors Association affiliated to International Federation of Inventor's Association (IFIA)
- Technical Committee TC 32/SC 32B (Low-voltage fuses) of International Electrotechnical Commission (IEC)
- Technical Committee SR 32B (Low-voltage fuses) of European Committee for Electrotechnical Standardization (CENELEC)

Member of the three PhD Committee at Stefan cel Mare University of Suceava, Romania, in 2012, 2013 and 2014

Member of the Editorial Board of the International Review on Modelling and Simulations (IREMOS), Praise Worthy Prize Publishing House, Italy

Technical Consultant for the following companies:

- PETRA – manufacturing of toroidal transformers (Romania)
  - Sangari Engineering Services – Romanian Branch of Sangari International Group (experts in educational, research and technological equipment)
  - Moeller Electric – Romanian Branch of Moeller an Eaton Brand
  - GP SUN POWER – photovoltaic technology (Italy)
  - Danieli Engineering –Romanian Branch of Danieli Group (Italy)
  - SONOVISION - Romanian Branch of SONOVISION Group (French)
- Cited in: Dictionary of Contemporary Romanian Inventors , vol. III, RISOPRINT Publishing House, Cluj Napoca, pp. 379-388, 2012 – Publication issued under the Academy of Technical Sciences of Romania - Cluj Branch