






## PERSONAL INFORMATION



## Istrate Dumitru-Marcel

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Sex Male | Date of birth 05/09/1960 | Nationality Romanian

## JOB APPLIED FOR POSITION

Doctoral School of the Electrical Engineering Faculty of “Gheorghe Asachi” Technical University of Iași, Romania

## WORK EXPERIENCE

2001 - present

## Professor

„Gheorghe Asachi” Technical University of Iași, D. Mangeron Str., No.67., Iași, 700050, Romania  
[www.tuiasi.ro](http://www.tuiasi.ro)

- Doctoral studies supervisor in the field of Power Engineering: 3 theses; 10 Ph.D. students
- Higher education and research in power engineering; reading courses such as: „High Voltage Engineering”, „Transient Regimes”, „Clean Technologies”, „Pollution Control of Power Plants”

Business or sector Higher education and research

1997 – 2001

## Associate Professor

„Gheorghe Asachi” Technical University of Iași, D. Mangeron Str., No.67., Iași, 700050, Romania  
[www.tuiasi.ro](http://www.tuiasi.ro)

- Higher education and research in power engineering; reading courses such as: „High Voltage Engineering”, „Clean Technologies”, „Pollution Control of Power Plants”, „Electrical Security”

Business or sector Higher education and research

1991 – 1997

## Assistant Professor

„Gheorghe Asachi” Technical University of Iași, D. Mangeron Str., No.67., Iași, 700050, Romania  
[www.tuiasi.ro](http://www.tuiasi.ro)

- Higher education and research in power engineering; reading courses such as: „Overvoltages and Insulation of Electrical Installations”, „Electrical Security”

Business or sector Higher education and research

1988 – 1991

## Assistant

„Gheorghe Asachi” Technical University of Iași, D. Mangeron Str., No.67., Iași, 700050, Romania  
[www.tuiasi.ro](http://www.tuiasi.ro)

- Higher education and research in power engineering; laboratory for „High Voltage Engineering”, „Computer Programming”

Business or sector Higher education and research

1984 - 1985

## Field engineer

Întreprinderea de Execuție și Exploatare a Lucrărilor de Îmbunătățiri Funciare Vaslui, Str. Traian, Vaslui, România

- Design and mounting installations of pumping substations maintenance and automations; Design, operation and maintenance of electrical grids and equipment of low voltage; Operation and maintenance of electrical equipment in the building materials industry.

Business or sector Energy

## EDUCATION AND TRAINING

- 1.10.2008-10.07.2009 **Master Diploma in "Management and legislation in industry, administration and services "**  
„Gheorghe Asachi” Technical University of Iasi, D. Mangeron Str., No.67., Iasi, 700050, Romania
- General Management, Management of human resources, Management of career, Legislation in the business, Law in the European Union
- 2006 **Postgraduate diploma in Energy Audits**  
„Gheorghe Asachi” Technical University of Iasi, D. Mangeron Str., No.67., Iasi, 700050, Romania
- Energy management systems for industrial customers and electric utilities.
- Oct – Dec 1999 **Specialization in "Pollution Control of the Power Plants"**  
Universidad de Valladolid, Spain
- Pollution control technologies of the power plants firing coal
- 1990 - 1996 **Doctor of Philosophy in Power engineering**  
„Gheorghe Asachi” Technical University of Iasi, D. Mangeron Str., No.67., Iasi, 700050, Romania
- PHd thesis: Contributions to the insulation coordination of the electrical grids with compact lines
- 1980 - 1985 **Master in Electrical engineering**  
„Gheorghe Asachi” Polytechnical Institute of Iasi (University)
- Electrical Engineering, Power Systems Engineering
- 1975 - 1979 **High school Diploma**  
"Emil Racoviță" Colege, Iași, Aleea Nicolina, 3, 700220
- 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	B1- Independent user	B1- Independent user	C2- Proficient user
French	B2- Independent user	B2- Independent user	B1- Independent user	B2- Independent user	B2- Independent 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 and Spain).
  - Good communication skills gained through my experience as an educator as well as an faculty manager (8 years as deputy dean and 4 years as dean)

- Organisational / managerial skills**
- leadership (currently, I am Vice Rector of "Gheorghe Asachi" Technical University of Iasi, Romania, after four year as Dean of the Electrical Engineering Faculty, and after eight years as deputy dean of the same Faculty)
  - good experience in project management - director of 18 grants and complex research projects with partners from power industry
  - good experience in organizing activities in quality assurance in higher education; ARACIS expert - 12 missions for the evaluation of different study programs.
  - member of the National Register of Expert Evaluators for evaluation and financing of scientific projects CALIST (2004), CNCSIS (2004-2008).

#### Job-related skills

- Good command of using modern technologies in education. I am reading courses and working with students in the following technical directions: High Voltage Engineering, Electrical Security, Transient Regimes, Clean Technologies, Pollution Control of the Power Plants.
- good command of professional knowledge in areas of scientific research: Protection against transient overvoltages, Protection against lightning strokes, Renewable electricity and Distributed generation, Fault location on transmission overhead lines, Distribution grids" observability and controllability, Coordination of impedance protection of power lines.
- I was manager or member of the research team in 56 research projects, among which 3 national research grants, and 15 complex research projects financed by power industry.
- good knowledge of quality control procedures (as Vice Rector of the University, as Dean of a Faculty and as a member of the Administration Council of our University).
- skills in evaluating scientific research projects within national research and development programs coordinated by CNCSIS, ANCS etc.
- skills in the peer-review of scientific papers as a member of the scientific board of some journals as are the followings: Environmental Engineering and Management Journal, ISSN 1582-9596; Balkan Journal of Electrical & Computer Engineering; Buletinul Academiei Mirecea cel Bătrân din Constanța; Analele Universității din Craiova, Seria Inginerie electrică

#### Computer skills

- Good command of MS Office Tools (Word, Excel, Power Point, Access),
- Good command of programming languages as Delphi,
- Good command for specialized software applications for power systems analysis (ATP-EMPT).

### ADDITIONAL INFORMATION

#### Publications

- **13** books and book chapters in recognized publishing houses and university courses, of which 5 as first or single author.
- **34** papers published in ISI journals and other journals indexed by international databases, of which 7 as first author.
- **39** papers indexed in ISI Proceedings and other international databases, of which 8 as first author.
- **49** papers in journals recognized by CNCSIS, of which 18 as first author.
- **39** papers in proceedings of international scientific conferences, of which 13 as first author.
- **20** papers in proceedings of national scientific conferences, of which 9 as first author.
- **17** patents, all in the database Derwent Innovations, of which 4 as first author.
- **8** national grants, of which 3 as director, 1 as partner responsible and 3 as member of the research team) and **46** research contracts with companies, and operators in the domain of electrical transmission and distribution grids, of which 15 as director and 31 as a member of the research team. Many of these research project with industrial partners were gained through national competition organised by the companies.

#### Significant publications

- Istrate M., Electrical Security (Electrosecuritate), Editura Editura Tehnică, științifică și didactică CERMI (cod CNCSIS 181), Iași, 384 pag., ISBN 978-973-667-274-3, 2007
- Istrate M., Pollution Control of the Power Plants (Tehnologii și instalații pentru reducerea emisiilor poluante – Controlul poluării în termoelectrică), Editura SETIS, Iași, cod CNCSIS 279, 428 pag, ISBN 973-86764-0-1, 2004.
- Istrate M., Gusa M., Assessment Of Two Single-End Fault Location Algorithms In An ATP Approach, Revue Roumaine de Sciences Techniques – Électrotechnique et Énergétique, Tome 54, 4, pp. 345-354, ISSN: 0035-4066, (<http://revue.elth.ro/index.php?action=details&id=194>)
- Istrate, M., Miron, A., Istrate, C., Gusa, M., Machidon, D., Single-phased Fault Location on Transmission Lines Using Unsynchronized Voltages, Advances in Electrical and Computer Engineering, Issue 3, 2009, pages 51-56, ISSN: 1582-7445, e-ISSN: 1844-7600, Digital Object Identifier: 10.4316/AECE.2009.03010, <http://www.aece.ro/index.php> (<http://www.aece.ro/abstractplus.php?year=2009&number=3&article=10>)
- Istrate M., Grigoraș Gh., Energy Consumption Estimation in Water Distribution Systems Using Fuzzy Techniques, Environmental Engineering and management Journal, Vol. 9, No.2, pp.249-256, February 2010. ISSN 1582-9596, <http://omicron.ch.tuiasi.ro/EEMJ/>.

## Publications

- Machidon D. Istrate M., A new model based on electrogeometrical theory for estimating the lightning protection zones, Published in Advanced Topics in Electrical Engineering (ATEE), 2013 8th International Symposium, May, Bucharest, pp.1-5, Print ISBN: 978-1-4673-5979-5, Digital Object Identifier : 10.1109/ATEE.2013.6563470 <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&number=6563470&queryText=%3Dmachidon>.
- Istrate M., Gușă M., Asaftei C., Gavriș N., Three phased Device for Local and Remote Signalizing (Dispozitiv trifazat de semnalizare locală și la distanță), Brevet România nr. 104650/1991, International Patent Classification H02H-007/26, <http://apps.isiknowledge.com>.

## Presentations

- Plenary speaker la 11th WSEAS International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering (MMACTEE '10), October 21-23, 2010, Timisoara, Romania.
- Invited Professor: courses of „Pollution Control of the Power Plants” – Technical University of Moldova Republic, Power Engineering Faculty, 2007, 2008.

## Projects

- Software tool for the increase of power systems' security through impedance protection coordination, developed on basis of artificial intelligence techniques (Instrument software destinat creșterii securității sistemelor electroenergetice prin coordonarea protecției de distanță, dezvoltat pe baza unor tehnici de inteligență artificială). Grant CNCIS, A, contract nr. GR 77/11.06.2008, tema nr. 20, cod CNCIS 283 (Director).
- Intelligent prediction and control of congestion in transmission and high voltage distribution systems (Sistem inteligent de predicție și control al congestiilor în rețelele de transport și distribuție la înaltă tensiune), Grant PN2-Parteneriate, contract 22-126 / 2008, Director proiect: Mihai Gavriș, Istrate M.- Responsible of the TUIASI partner.
- Study on the protection against lightning strokes for a Romanian National Power Grid Substation using the Rolling Sphere Method (Studiu privind verificarea schemelor de protecție împotriva loviturilor directe de trăsnet în cazul stației 220/110/20 kV Munteni. Analiză comparată a metodei normate și a metodei electrogeometrice), cod CPV 71335000-5; Transelectrica - Romanian National Power Grid Operator, Bacau Subsidiary, 2013, tema 8795/17.05.2013 (Director).
- Software tool designed to the analysis of the transients induced by the false operation of some protections in power transmission grids (Aplicație software pentru analiza regimurilor electromagnetice tranzitorii generate de funcționarea unor protecții și instalații automate din RET 220/400 kV). Transelectrica - Romanian National Power Grid Operator, Bacau Subsidiary (Director)
- Research on the opportunity of arrester installation on overhead lines (Cercetări privind oportunitatea instalării de descărcătoare cu rezistență variabilă pe liniile electrice aeriene); Grant CNCIS, contract 2741/ 19.05.2006, tema 40, cod CNCIS 483, (Member of the research team)

## Other skills (as conferences organiser or member in committees)

- Member in the International Program Committee of conferences as are the following: Electrical and Power Engineering EPE 2004, EPE 2006, EPE 2008, EPE 2010; EPE 2012; International Symposium of Electromechanical and Power Engineering SIELMEN 2005; SIELMEN 2007; SIELMEN 2009; World Energy System Conference WESC 2008; International Conference on Optimization of Electrical and Electronic Equipment OPTIM 2014, OPTIM 2015; IC-SPETO 2015; International Conference on Environment and Electrical Engineering IEEEIC 2011, IEEEIC 2012, IEEEIC 2013, IEEEIC 2014, IEEEIC 2015; World Renewable Energy Congress WREC 2015; CIEM 2015.
- Conference Chairman: The 5th International Conference on Electromechanical and Power Systems, SIELMEN 2005 și The 7th International Conference on Electromechanical and Power Systems, SIELMEN 2009; The 5th International Conference on Electrical and Power Engineering, EPE 2008; The 2008 International World Energy System (WES) Conference. The 7th National Conference On Industrial Energetics, CNEI 2009; 9th WSEAS International Conference on Electric Power Systems, High Voltages, Electric Machines (POWER'09); 12th WSEAS International Conference on Mathematical Methods and Computational Techniques in Electrical Engineering (MMACTEE '10); General chair - The 7th International Conference on Electrical and Power Engineering, EPE 2014

## Honours and awards

- Gold Medal at the International Exhibition of Patents EUREKA '94, Bruxelles, 1994

## Memberships

- Member of CIGRE Paris and of the Romanian National Committee of CIGRE
- Member of the Romanian National Committee of the World Energy Council

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