



Curriculum vitae Europass

CURRICULUM VITAE



Informatii personale

Prenume / Nume

Horia Leonard Andrei

Adrese

Teletone

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horia.andrei@valahia.ro; hr_andrei@yahoo.com

Nationalitate

Romana

Data nasterii

Sex

Masculin

Locuri de munca / Domenii occupationale

Data (de la – la)

1979-1982

Numele si adresa angajatorului

SC ROMLUX SA, Tirgoviste

Tipul de activitate sau sectorul

Industriala si de proiectare: instalatii electrice, automatizari industriale si sisteme automate specifice tehnologiei de fabricatie a surselor luminoase

Ocupatia sau pozitia

Inginer Stagiar

Activitățile principale si
responsabilitățile detinute

Intretinere, depanare si proiectare instalatii electrice, sisteme de automatizare

Data (de la – la)

1982-1991

Numele si adresa angajatorului

Institutul Politehnic Bucuresti -IPB, catedra de Electrotehnica

Tipul de activitate sau sectorul

Academica: didactica si de cercetare

Ocupatia sau pozitia

Asistent universitar

Activitățile principale si
responsabilitățile detinute

Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini electrice;
Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industriala.
Activitati de cercetare si proiectare

Data (de la – la)

1991-1999

Numele si adresa angajatorului

Universitatea (Institutul) Politehnica Bucuresti - UPB, catedra de Electrotehnica

Tipul de activitate sau sectorul

Academica: didactica si de cercetare

Ocupatia sau pozitia

Șef de lucrări

Activitățile principale si
responsabilitățile detinute

Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini electrice;
Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industriala, Electrotehnica si Masini Electrice.
Activitati de cercetare si proiectare

Data (de la – la)

1999-2002

Numele si adresa angajatorului

Universitatea Politehnica Bucuresti, catedra de Electrotehnica

Tipul de activitate sau sectorul
Ocupatia sau pozitia
Activitățile principale si
responsabilitățile detinute

Academica: didactica si de cercetare
Conferentiar universitar
Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industriala, Electrotehnica si
Masini Electrice. Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini
electrice; Activitati de cercetare si proiectare

Data (de la – la)
Numele si adresa angajatorului

2000- prezent
Universitatea Valahia Targoviste, Departamentul de Automatica, Informatica si Inginerie Electrica-
DAIE, Blv. Unirii, nr. 18-20, 130084, Targoviste, Dambovita, Romania
Scoala Doctorala de Stiinte Ingineresti - SDSI

Tipul de activitate sau sectorul
Ocupatia sau pozitia
Activitățile principale si
responsabilitățile detinute

Academica: didactica si de cercetare
Profesor universitar
-Sustinere cursuri: Bazele Electrotehnicii, Metode numerice, Inginerie Biomedicala, Managementul
riscurilor in sistemele electroenergetice, Modelarea si simularea circuitelor electrice;
-Seful Catedrei de Electromecanica 2000-2004, Prodecan al Facultatii de Inginerie Electrica 2004-
2008, Director adjunct DAIE, 2008-2012;
- Conducator de doctorat din 2010;
- Conducator stiintific a peste 100 de lucrari de licenta si disertatie incepand cu 1998;
- Membru in peste 30 de comisii de examinare a tezelor de doctorat incepand cu 2000;
- Activitati de cercetare si proiectare.

Educatie si formare

Data (de la – la)
Numele si tipul de organizatiei care
asigură educatia si formarea
Titlul calificării acordate

1969-1973
Liceul Teoretic Moreni

Diploma de Bacalaureat

Data (de la – la)
Numele si tipul de organizatiei care
asigură educatia si formarea
Titlul calificării acordate

1974-1979
Facultatea de Automatica si Calculatoare – IPB București

Diploma de Inginer

Data (de la – la)
Numele si tipul de organizatiei care
asigură educatia si formarea
Titlul calificării acordate

2001
UPB București (program PHARE)

"Inițiere în Managementul proiectelor"

Data (de la – la)
Numele si tipul de organizatiei care
asigură educatia si formarea
Titlul calificării acordate

1996
Facultatea de Electrotehnica – UPB București

- Diploma de Doctor
- Conducator de doctorat acreditat din 2005, avizat in IOSUD din 2010;
- 13 teze de doctorat finalizate la UVT în calitate de conducător științific de doctorat;
- 23 de participări ca referent în comisii de doctorat la Universitatea Politehnica București,
Universitatea "Dunărea de Jos" din Galați și Universitatea din Oradea.

Aptitudini si competente personale

Limba materna
Limba(i) străină(e) cunoscută(e)

Română

Autoevaluare
Nivel european (*)

Limba engleza
Limba franceza

Înțelegere		Vorbire		Scriere
Ascultare	Citire	Participare la conversație	Discurs oral	Exprimare scrisă
F. Bine	F. Bine	F. Bine	F. Bine	F. Bine
F. Bine	F. Bine	F. Bine	F. Bine	F. Bine

Competențe și abilități sociale Abilitati si competente organizatorice	Multi prieteni, sociabil - Foarte bune competente didactice si de cercetare; - Foarte bune abilitați manageriale si administrative; - Capacitatea de a lucra in echipa.
Competente si aptitudini tehnice	Proiectare aplicatii CAD, utilizare SCADA, instrumentatie virtuala, utilizare CADDY++
Competente si cunostinte de utilizare a calculatorului	Microsoft Office, LabView, Matlab/Simulink, PSpice, C++, TurboPascal, Basic
Permis de conducere	Categoria. B
Informatii suplimentare	<p>1. Alte specializari si calificari: - <i>absolvent al programului PHARE RO9807.01.01.02.0030 "Managementul proiectelor" la UPB, 2002;</i> - <i>instructor acreditat CPI-SA pentru tehnica predării și cunoștințe generale de informatică, 2003;</i> - <i>posesor al Permisului European de Conducere a Computerului - ECDL - RO007634;</i></p> <p>2. Activitatea de cercetare - am elaborat 2 inovații ; - am participat ca director/responsabil/membru în echipă la un număr total de 42 proiecte naționale/internaționale obținute prin competiție, dintre care: 35 proiecte de cercetare/dezvoltare (25/8), 7 proiecte educaționale/formare continuă (7/0); la 13 (11/2) proiecte am fost director sau responsabil; - am participat la 8 propuneri de proiecte europene: 1 H2020 (director), 1 IEE (partener), 2 FP7 (partener) si 4 COST (director).</p> <p>3. Publicatii stiintifice - am publicat un numar total/prim autor de 355 / 242 articole și comunicări științifice in reviste internationale si nationale, si volume ale conferintelor internationale; - dintre toate acestea 271 / 90 sunt in publicatii cotate ISI WoS (94/38, 9 în reviste din zona roșie) și BDI (177/52); - am publicat un numar total / prim autor de 87 / 34 carti, capitole de carti si monografiile tehnice; dintre acestea un numar total / prim autor de 25 / 8 sunt publicate la edituri recunoscute din strainatate; - peste 1100 de citări în cărți și articole de specialitate, dintre care 172 de citări în lucrări cotate ISI WoS, 386 de citări în lucrări cotate SCOPUS și 1163 de citări în lucrări cotate Google Scholar; - H-index: Google Scholar 17, i-10 index 27; Scopus 12; ISI Web of Science (WoS) 12.</p> <p>4. Membru al asociatiilor profesionale: - - Senior Member IEEE (Institute of Electric and Electronic Engineering): Circuits and Systems (CAS) Society din 2012 (Membership din 2006), IEEE Broadcast Technology Society Membership din 2010; - AGIR (Asociatia Generala a Inginerilor din Romania) din 2014; - AMSE (Association for the Advancement of Modeling and Simulation techniques in Enterprises) din 1986; - WSEAS (World Scientific and Engineering Academy and Society), din 2005; - SIEAR (Societatea Inginerilor de Instalații Electrice și Automatizări din România) din 2001; - AIEER (Asociația Inginerilor de Electrotehnică și Electronică din România) din 2003; - SRR (Asociația Română de Robotică) din 2006. - membru CNATDCU, comisia Inginerie Electrica 2020-2024. - expert ARACIS, comisia 11.</p> <p>5. Experienta internationala, recunoastere nationala si internationala: - <i>Profesor invitat/Visiting Professor</i> : University of Rouen, France, 2005, Politecnico di Torino, Italy, 2006, 2007, 2009, 2014; University College of Engineering – Copenhagen, Denmark, 2010, in cadrul programului Socrates/Erasmus Staff Exchange; - <i>Revizor stiintific al revistelor internationale cotate ISI Web of Science:</i> "AA-Acta Astronautica", „MSB-Materials Science and Engineering B”, „JPROCONT-Journal of Process Control”, „JCLEPRO-Journal of Cleaner Production”, „Energy” and „APEN-Applied Energy” - Elsevier Editorial System; „IEEE - Transactions on Industrial Electronics (TIE)”, „IEEE - Journal of Photovoltaics”; „Journal of Electrical and Electronics Engineering Research-JEER”; „WSEAS-Transactions on Circuits and Systems”; „IEEE - Transactions on Very Large Scale Integration Systems (TVSLI), AKTA-IMEKO; Reliability Engineering and System Safety, Energies-MDPI; Energy Report-MDPI, Sustainability-</p>

MDPI, Mathematics-MDPI;

- *Revizor stiintific al revistelor nationale*: "Scientific Bulletin of Electrical Engineering Faculty", "Journal of Electrical and Electronics Engineering", "Electrotechnics, Electronics and Control Systems – EEA" cotate de CNCSIS in categoria B+;

- *Redactor sef onorific al revistei* „The Scientific Bulletin of Electrical Engineering Faculty-SBEEF”, *Co-Chief Editor al revistei* "Journal of Electrical Engineering, Electronics, Control and Computer Sciences-JEECCS" cotate de CNCSIS in categoria B+, Google Scholar si Index Copernicus – Master Journal List;

- *Expert European IEE-EACI – Programme*;

- *Lucrari invitate la conferinte internationale* : WSEAS Bucharest 2006 and Rhodos 2008, IEEE-ECAI Pitesti 2010, EW-DGSRES Pitesti 2012; IEEE-ECAI 2020.

- *Evaluator – expert national* al propunerilor de proiecte: PNCDI, CE-EX, RELANSIN, CNCSIS, CERES, AMCSIT, expert ARACIS;

-*Presedinte/Chairman al conferintelor*: ISEM 2000 Univ. Valahia Targoviste; ISEE 2001, 2002, 2003, 2004, 2005, 2007, 2009, 2011 Univ. Valahia Targoviste; WSEAS 2006 Bucharest, WSEAS 2008 Rhodos; WESC 2010 Targoviste;

- *Membreu al Comitetului stiintific/organizare, Revizor al Conferintelor*, : RJSAEM 2001, Univ. Oradea; METSIM 2002, 2003, 2005 University Politehnica Bucharest (UPB); IEEE-EMES 2004, 2005, 2009, 2011, 2013, 2015-Univ. Oradea; SNET 2004, 2005, 2007, 2009, 2012 UPB; IEEE-ATEE 2004, 2006, 2008, 2010, 2012 UPB; GSP 2005 UPB; IEEE-ECAI – 2010- 2023; WESC – 2004 Oradea, 2006 Torino, 2008 Iasi, 2012 Suceava; IEEE-INDIN Viena 2007; WSEAS –Lisabona and Bucharest, 2006, Istanbul, and Creta 2007, Rhodos 2008; 11th Int. Conf. on Microwave and high Frequency Heating (Ampere Conf), 2007 Oradea; JAPMED 2009, 2011; IEEE-EEIC Roma, 2011,2015, Venice-Athens 2012, Wroclaw 2013; IEEE-MELECON 2012, Tunis; IEEE-PES-DEMSEE 2012, Bucharest; EW-DGSRES Pitesti 2012; IEEE-ISCAS 2016; IEEE-ISFEE Bucarest, 2018.

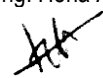
- *Diplome si premii*: Inclus in "Who's Who in the World - Who's Who in Science and Engineering", din 2008, VIP Number 32846430 since 2008, pp. 77; Inclus in "The IBC Leading Engineers of the World 2008", International Biographical Centre, Cambridge, England; am primit "Diploma de Excelenta" la a 13-a Conferinta Nationala de Inventica, Iasi, Romania, 4-6 June, 2009; Nominalizat la ENI Award in 2010, 2011; am primit „Diploma de Merit” a Universitatii „Valahia” din Targoviste 1-2 iunie 2012, si „Diploma de Excelenta” a Universitatii „Stefan cel Mare” din Suceava, Romania, 28 June 2012; „Certificat de Excelenta” acordat de Comisia nationala UNESCO, oct. 2012; am obtinut gradul de Senior Member IEEE, 2012; sunt decorat cu Medalia de Excelență a Municipiului Moreni, jud. Dâmbovița și cu titlul de HONORARIUS al Liceului teoretic din Moreni, 2006; am primit de la Elsevier – Journal of Applied Energy diploma „Outstanding Reviewer of 2012 Awarded to Horia Andrei for Exceptional Contribution to the Quality of the Journal of Applied Energy-APEN”, „APEN-Certificate of Reviewing-awarded April, 2015”, Applied Energy (IF 7.182) – Awards of Best Reviewers (2016)”, Springer Nature Award „Energy, Ecology, Environment Applied Energy – 2018 Outstanding Reviewers for Exceptional Contributions of their Reviews to the Journal”, Premiul CNCSIS 2020 pentru articolul Cristian-Petre Fluieraru, Gabriel Preduşcă, **Horia Andrei**,1 Emil Diaconu,Petru Adrian Cotfas, Daniel Tudor Cotfas, *Determination of Technological Features of a Solar Photovoltaic Cell Made of Monocrystalline Silicon P+PN+*, International Journal of Photoenergy, Volume 2019, Article ID 7945683, 14 pages, <https://doi.org/10.1155/2019/7945683>, indexat ISI Web of Science, impact factor 1.88; Best papers award IEEE-ECAI 2021-indexat ISI-WoS; Profesor Honorificus al Universitatii Valahia din Targoviste, 5 iunie 2022.

- *Co-Guest Editor* al volumului special *Energy Journal* (ISSN 0360-044, indexat ISI Web of Science) -dedicat unei selectii a articolelor prezentate la 8th World Energy System Conference (WESC), Targoviste, 2010;

- Guest Editor of Special Issue "Power Systems Connectivity and Resiliency: Modeling, Simulation and Analysis", *Energies* (indexat ISI Web of Science), 2021.

- Topic Editor of *Energies* 2020-2024 (indexat ISI Web of Science).

- Co-Guest Editor of Special Issue " *Experimental and Modeling Methods, and Novel Applications of Electromagnetic Energy* ", *Energies* (indexat ISI Web of Science), 2022



ISI-WoS

- Ri1.** Horia Andrei, Dan D. Micu, Marian Gaiceanu, Marilena Stanculescu, Paul Cristian Andrei, *Numerical Methods for Equations, Systems Equations and Optimization*, Chapter 1 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri2.** Marilena Stanculescu, Sorin Deleanu, Paul Andrei, Horia Andrei, Lavinia Bobaru, Mihai Iordache, *Theoretical Approaches of Finite Elements Method (FEM)*, Chapter 3 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri3.** Andrei Ceclan, Dan D. Micu, Levente Czumbil, Horia Andrei, M. Gaiceanu, Marilena Stanculescu, Paul Cristian Andrei, *Posed Inverse Problems in Electrical Engineering Applications*, Chapter 9 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri4.** Marilena Stanculescu, Paul Andrei, Horia Andrei, Sorin Deleanu, Lavinia Bobaru, *Numerical Assessment of Electromagnetic Energy and Forces in Non-Destructive Measurement Devices*, Chapter 21 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri5.** Sorin Deleanu, Marilena Stanculescu, Dragos Niculae, Paul Cristian Andrei, Lavinia Bobaru, Horia Andrei, *Optimal Integration of Electric Vehicles in Smart Grid Energy Flow*, Chapter 22 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri6.** Emil Diaconu, Alexandru Enescu, Horia Andrei, Sorin Deleanu, *Numerical Approaches of Biomass Plants Efficiency*, Chapter 23 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri7.** Marilena Stanculescu, Sorin Deleanu, Paul Cristian Andrei and Horia Andrei, *A Case Study of an Industrial Power Plant under Cyberattack: Simulation and Analysis*, *Energies* 2021, 14, 2568. <https://doi.org/10.3390/en14092568>, [indexat ISI](#), **impact factor 3.07.**
- Ri8.** Horia Andrei, Mihai Iordache, Paul Cristian Andrei, Marilena Stanculescu, Sorin Deleanu, Lavinia Bobaru, *Power and Energy Flow in Cvasi-Stationary Electric and Magnetic Circuits*, Chapter 24 of the book *Numerical Methods for Energy Applications*, editors M. Tabatabaei, N. Bizon, Springer, 2021, [indexat ISI Web of Science](#)
- Ri9.** H. Andrei, M. Gaiceanu, M. Stanculescu, I. Marinescu, P. C. Andrei, *Security evaluation of sensor networks*, chapter 11 of the book *Recent Developments on Industrial Control Systems Resilience*, editors M. Tabatabaei, E. Pricop, Springer, 2020.
- Ri10.** H. Andrei, M. Gaiceanu, Marilena Stanculescu, P.C. Andrei, R. Buhosu, C.A. Badea, *Energy Storage Systems in Microgrid*, chapter 8 of the book *Microgrid Architectures, Control and Protection Methods*, editors M. Tabatabaei, S.V. Ravadanegh, N. Bizon, Springer, 2019, [indexat ISI Web of Science](#)
- Ri11.** H. Andrei, M. Gaiceanu, Marilena Stanculescu, I. Arama, P.C. Andrei, *Microgrid Protection*, chapter 25 of the book *Microgrid Architectures, Control and Protection Methods*, editors M. Tabatabaei, S.V. Ravadanegh, N. Bizon, Springer, 2019, [indexat ISI Web of Science](#)
- Ri12.** H. Andrei, M. Gaiceanu, Marilena Stanculescu, I. Arama, P.C. Andrei, *Power Systems Connectivity and Resiliency*, pp.45-79, chapter 2 of the book *Power Systems Resilience, Modeling, Analysis and Practice*, editors M. Tabatabaei, S.V. Ravadanegh, N. Bizon, Springer, 2019, [indexat ISI Web of Science](#)
- Ri13.** H. Andrei, P.C. Andrei, M. Gaiceanu, Marilena Stanculescu, I. Arama, I. Marinescu, *Power Systems Recovery and Restoration Encouter with Natural Disaster and Deliberate Attacks*, pp.247-267, chapter 10 of the book *Power Systems Resilience, Modeling, Analysis and Practice*, editors M. Tabatabaei, S.V. Ravadanegh, N. Bizon, Springer, 2019, [indexat ISI Web of Science](#)
- Ri14.** H. Andrei, P.C. Andrei, Marilena Stanculescu, E. Cazacu, Luminita Constantinescu, R. Beloiu, *Electrical Power Systems*, pp.3-48, chapter 1 of the book *Reactive Power Control in AC Power Systems*, editors Mahdavi Tabatabaei, N., Jafari Aghbolaghi, A., Bizon, N., Blaabjerg, Springer, 2017, ISBN 978-3-319-51118-4, [indexat ISI Web of Science](#)
- Ri15.** H. Andrei, P. C. Andrei, Marilena Stanculescu, E. Cazacu, *Fundamentals of Reactive Power in AC Power Systems*, pp.49-116, chapter 2 of the book *Reactive Power Control in AC Power Systems*, editors Mahdavi Tabatabaei, N., Jafari Aghbolaghi, A., Bizon, N., Blaabjerg, Springer, 2017, ISBN 978-3-319-51118-4, 631 pages, [indexat ISI Web of Science](#)
- Ri16.** S. Orboiu, H. Andrei, *Analyze of Eco-financial Impact of PV System Integration in Educational Institutions. Case Study in Romania*, Proc of IEEE - Electronics, Computers and Artificial Intelligence - ECAI, 2020, ISBN: 978-1-7281-6843-2, [indexat ISI-WoS](#).
- Ri17.** A. Enescu, H. Andrei, E. Diaconu, N. Angelescu. *Financial and technical forecast analysis of*

a cogeneration biomass plant – Case study in Romania, Proc. of IEEE-ECAI 2020, SBN: 978-1-7281-6843-2, [indexat ISI-WoS](#).

Ri18. Cristian-Petre Fluieraru, Gabriel Preduşcă, **Horia Andrei**, 1 Emil Diaconu, Petru Adrian Cofas, Daniel Tudor Cofas, *Determination of Technological Features of a Solar Photovoltaic Cell Made of Monocrystalline Silicon P+PN+*, International Journal of Photoenergy, Volume 2019, Article ID 7945683, 14 pages, <https://doi.org/10.1155/2019/7945683>, [indexat ISI Web of Science](#), **impact factor 1.88**

Ri19. **Horia Andrei**; Cristian Andrei Badea; Paul Andrei; Filippo Spertino, *Energy consumption analysis and PV system connectivity on a waste water treatment plant. Case study: modeling and simulation*, Energies (ISSN 1996-1073) Energies **2021**, 14, 100. <https://dx.doi.org/10.3390/en14010100>, [indexat ISI](#), **impact factor 2.702**.

Ri20. I. Marinescu, **H. Andrei**, I. Iordache, *Protection Methods and Actions to Increase the safety of Operation in Power Systems Assimilated to Critical Infrastructures*, IEEE-ECAI, 28 June-1 July, 2019, Pitesti, Romania, [indexat ISI Web of Science](#).

Ri21 I. Marinescu, S. Deleanu, M. Stănculescu, L. Bobaru, P. Andrei, **H. Andrei**, *Electrical equipment safety analysis and simulation. Case study: transformer's malfunctions*, IEEE-6th Int Symposium on Electrical and Electronics Engineering-ISEEE, 18-20 oct. 2019, Galati Romania, paper 14, acceptat pentru prezentare în cadrul conferinței [indexată ISI Web of Science](#).

Ri22. A. Enescu, **H. Andrei**, V. E. Diaconu, V. Ion, *Numerical Methods for Modeling the Input-Output Characteristics in a Co-generation Plant*, IEEE-ECAI, 28 June-1 July, 2019, Pitesti, Romania, [indexat ISI Web of Science](#).

Ri23. A. Ciocia, G. Malgaroli, A. Spedicato, F. Spertino, **H. Andrei**, V. Boicea, *Quality Check during Manufacturing of Custom Photovoltaic Modules with Back-Contact Cells*, IEEE-UPEC, 3 -6 Sept., 2019, Bucharest, Romania, [indexat ISI Web of Science](#).

Ri24. I. Vasile, V. Vasile, E. Diaconu, **H. Andrei**, N. Angelescu, *Vital Parameters Monitoring System and Alert Signal Transmission to Emergency Medical Centers*, Journal of Science and Arts Year, 2019, ISSN 1844-9581; eISSN 2068-3049, [indexat ISI Web of Science](#), **impact factor 0.675**.

Ri25. Marilena Stanculescu, C.A. Badea, I. Marinescu, P. Andrei, Oana Drosu, **H. Andrei**, *Vulnerability of SCADA and Security Solutions for a Waste Water Treatment Plant*, IEEE XIth Int. Symposium on Advanced Topics in Electrical Engineering-ATEE, March 28-30, 2019, Bucharest, Romania, Paper 87, 978-1-7281-0101-9/19/\$31.00 ©2019 IEEE, [indexat ISI Web of Science](#)

Ri26. **H. Andrei**, V. Ion, E. Diaconu, A. Enescu, I. Udroui, *Energy Consumption Analysis of Security Systems for a Residential Consumer*, IEEE XIth Int. Symposium on Advanced Topics in Electrical Engineering-ATEE, March 28-30, 2019, Bucharest, Romania, Paper 110, 978-1-7281-0101-9/19/\$31.00 ©2019 IEEE, [indexat ISI Web of Science](#)

Ri27. **H. Andrei**, A. Enescu, E. Diaconu, V. Ion, I. Udroui, *Data Acquisition and Modeling of Cogeneration Power Plant Parameters*, IEEE XIth Int. Symposium on Advanced Topics in Electrical Engineering-ATEE, March 28-30, 2019, Bucharest, Romania, Paper 113, 978-1-7281-0101-9/19/\$31.00 ©2019 IEEE, [indexat ISI Web of Science](#)

Ri28. S. Orboiu, **H. Andrei**, *DAQ and Power Quality Analysis of Electrical Parameters in Romanian Schools*, IEEE XIth Int. Symposium on Advanced Topics in Electrical Engineering-ATEE, March 28-30, 2019, Bucharest, Romania, Paper 129, 978-1-7281-0101-9/19/\$31.00 ©2019 IEEE, [indexat ISI Web of Science](#).

Ri29 Lucian Nastase, **Horia Andrei**, Emil Lungu, Veronica Dulea, Emil Diaconu, *Modeling, Simulation and Optimization of Dual Heating System*, IEEE - 6th ISEEE, October 18-20, 2019 Galați, Romania, [indexat ISI Web of Science](#).

Ri30. **H. Andrei**, P.C. Andrei, E. Cazacu, Marilena Stanculescu, S. Orboiu, *Power quality analysis based on a novel nonlinear dependence between parameters of nonsinusoidal regime*, IEEE-ISFEE, 1-3 Nov, 2018, Bucarest, Romania, paper #456, IEEE Catalog number CFP1893Y-ART, ISBN: 978-1-5386-7212-9, [indexat ISI Web of Science](#).

Ri31. B. Enache, P.C. Andrei, C. Cepisca, **H. Andrei**, *Harmonic Analysis for Linear Circuits Based on Voltage Relative Values and Standard Limits*, IEEE-ECAI, 28 June-1 July, 2018, Iasi, Romania, vol.10, no.1-2018, pp.50-56, ISBN 978-1-5386-4901-5, IEEE Catalog number CFP 1827U-ART, [indexat ISI Web of Science](#)

Ri32. I.D. Diaconu, Marilena Stanculescu, A.I. Chirila, V. Navrapescu, **H. Andrei**, *On Automatic Transfer Switch Systems Security*, IEEE-ICATE, 4-6 Oct., 2018, Craiova, Romania, paper #129, ISBN 978-1-5386-3805-7, IEEE Catalog No. 1899S-USB, [indexat ISI Web of Science](#).

Ri33. Diana Enescu, **H. Andrei**, I. Caciula, P.C. Andrei, *Study of a Thermoelectric Refrigerator through Circuit-Based Models and Electro-Thermal Analogy*, UPEC, 4- Sept., 2018, Glasgow, UK, paper #209, ISBN 978-1-5386-4901-5, IEEE Catalog number CFP 1827U-ART, [indexat ISI Web of Science](#).

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- Ri35.** I.Vasile, V.Vasile, V. M. Alexe, E.Diaconu, I. Caciula, **H.Andrei**, *Simulation and modeling of battery operation used in real-time monitoring equipment of vital human*, Journal of Science and Arts Year 17, No. 4(41), pp. 861-870, 2017, ISSN 1844-9581; eISSN 2068-3049, [indexat ISI Web of Science](#), **impact factor 0.675**.
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II. Proiecte Nationale (PN - 4) si Internationale (PI - 3) - cele mai importante in ultimii 10 ani:

PN1. Sistem inteligent mobil de conversie a resurselor proprii si de optimizare a consumului de energie pentru producatori cu potential ridicat de poluare - Sycon, cod SMIS 12140

PN2. Sistem de monitorizare si inspectie avansata aeriana si terestra a infrastructurilor critice-SMIATIC, POC 2014-2020, Axa prioritara 1-Cercetare, dezvoltare tehnologica si inovare (CDI) in sprijinul competitivitatii economice si dezvoltarii afacerilor.

PN3. Qualification, Adaptation, Performance – for a better life, POSDRU/182/2.3/5/152783, 2015-2016, project manager.

PN4. Continuing vocational training in electrical and computer qualification, 2010-2011 POS-DRU project 24/2.3/G/17727, course director.

PI1. Leonardo da Vinci Transfer of innovations project 2012-1-Gr1-LEO05-10057 „Enhance Attractiveness of Renewable Energy Training by Virtual Reality” – AVARES, 2012.

PI2. Advanced devices for micro and nano-scale manipulation and characterization (ADMAN), PN-

II-RU-TE-2011-3-0299, 2011-2012, Professor-tutor (mentor).

PI3. Training Hub of Renewable Energy Technology for Sri Lanka- Three Lanka, application no. 619309-EPP-1-2020-LK-EPPKA2-CBHE-JP, European Commission Erasmus +, Higher Education, 2020-2022, expert.

III. Carti (6) si capitole de carti (3) in edituri internationale - cele mai importante in ultimii 10 ani (Obs. Capitolele publicate in ed. Springer, in numar de 13, au fost precizate la paragraful I ca publicatii cotate ISI-WoS):

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5. C. Fluerașu, Corina Fluerașu, Dorina Popovici, P.C. Andrei, **H. Andrei**, *Numerical Algorithms and Applications in Electrical Engineering*, ed. Printech, București, 2016, ISBN: 978-606-23-0661-8, 160 pag.

2. **H. Andrei** (coordinator), C. Fluerașu, Elena Virjoghe, Corina Fluerașu, Diana Enescu, Dorina Popovici, Adela Husu, P. C. Andrei, G. Predusca, E. Diaconu, *Metode numerice, modelari si simulari in ingineria electrica / Numerical Methods, Modelling and Simulation in Electrical Engineering* - in Romanian and English, ed. Electra, Bucuresti, 2011, ISBN: 978-606-507-060-8, 620 pag.

3. **H. Andrei**, G. Chicco, F. Spinei, *Minimum Dissipated Power and Energy - Two General Principles of the Linear Electric and Magnetic Circuits in Quasi-Stationary Regime*, pp. 130-205, chapter 5 of the book *Advances in Energy Research: Distributed Generations Systems Integrating Renewable Energy Resources*, editor N. Bizon, Nova Science Publishers, New York, 2011, ISBN: 978-1-61209-991-0, 620 pag.

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8. **H. Andrei**, *Minimum Dissipated Power and Energy - Two General Principles of the Linear Electric and Magnetic Circuits in Quasi-Stationary Regime*, pp. 141-165, Chapter 5 of the book *Complex Behaviour of the Distributed Generation System Intelligent Management of the Renewable Energy Resources for assuring the DG System Power Quality and a Sustainable Development*, editor N. Bizon, Publishing House of University of Pitesti, 2010, ISBN 978-606-560-128-4 (hardcover), ISBN 978-606-560-129-1 (e-book), 564 pag.

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IV. Citari (in total peste 1000) selectate ale articolelor indexate ISI Web of Science si BDI in reviste si volume de conferinte indexate ISI Web of Science si BDI: peste 600 - cele mai importante in ISI WoS (131) in ultimii 10 ani sunt:

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a3) Salas, R.A., Pleite, J. *Accurate modeling of voltage and current waveforms of nonlinear inductors with finite elements* IEEE International Symposium on Industrial Electronics , art. no. 5213146, pp. 1630-1633, 2009, indexed **SCOPUS**, **IEEEExplore**.

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