



# Curriculum vitae Europass

## CURRICULUM VITAE



### Horia-Leonard Andrei

#### Informatii personale

Prenume / Nume  
Adrese  
Date unice de identificare  
E-mail  
Nationalitate  
Data nasterii  
Sex

ORCID 0000-0001-9536-8489 Web of Science Researcher ID E-6723-2017

[horia.andrei@valahia.ro](mailto:horia.andrei@valahia.ro) [hr\\_andrei@yahoo.com](mailto:hr_andrei@yahoo.com)

Romana

15.05.1954

Masculin

#### Locuri de munca / Domenii ocupationale

Data (de la - la)  
Numele si adresa angajatorului  
Tipul de activitate sau sectorul  
Ocupatia sau pozitia  
Activitățile principale si responsabilitățile detinute  
Data (de la - la)  
Numele si adresa angajatorului  
Tipul de activitate sau sectorul  
Ocupatia sau pozitia  
Activitățile principale si responsabilitățile detinute  
Data (de la - la)  
Numele si adresa angajatorului  
Tipul de activitate sau sectorul

1979-1982  
SC ROMLUX SA, Tirgoviste  
Industriala si de proiectare: instalatii electrice, automatizari industriale si sisteme automate specifice tehnologiei de fabricatie a surselor luminoase  
Inginer Stagiar  
Intretinere, depanare si proiectare instalatii electrice, sisteme de automatizare  
1982-1991  
Institutul Politehnic Bucuresti -IPB, catedra de Electrotehnica  
Academica: didactica si de cercetare  
Asistent universitar  
Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini electrice;  
Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industriala.  
Activitati de cercetare si proiectare  
1991-1999  
Universitatea (Institutul) Politehnica Bucuresti - UPB, catedra de Electrotehnica  
Academica: didactica si de cercetare

Ocupatia sau pozitia	Şef de lucrări
Activitățile principale si responsabilitățile detinute	Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini electrice; Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industrială, 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	Academica: didactica si de cercetare
Ocupatia sau pozitia	Conferentiar universitar
Activitățile principale si responsabilitățile detinute	Sustinere cursuri: Bazele Electrotehnicii, Electrotehnica si Electronica Industrială, Electrotehnica si Masini Electrice. Conducere de seminarii, lucrări de laborator: Bazele electrotehnicii, Masini electrice; Activitati de cercetare si proiectare
Data (de la - la)	2000- prezent
Numele si adresa angajatorului	Universitatea Valahia Targoviste-UVT Aleea Sinaia, nr. 13, 130004, Targoviste, Dambovita, Romania Scoala Doctorala de Stiinte Ingineresti - SDSI
Tipul de activitate sau sectorul	Academica: didactica si de cercetare
Ocupatia sau pozitia	Profesor universitar; din 2019 Profesor universitar asociat
Activitățile principale si responsabilitățile detinute	-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 abilitat din 2005; validat in IOSUD-UVT din 2010; - Conducator stiintific a peste 100 de lucrari de licenta si disertatie incepand cu 1998; - Membru in peste 40 de comisii de examinare a tezelor de doctorat incepand cu 2000; - Activitati de cercetare si proiectare.

## Educatie si formare

Data (de la - la)	1969-1973
Numele si tipul de organizatiei care asigură educatia si formarea	Liceul Teoretic Moreni
Titlul calificării acordate	Diploma de Bacalaureat
Data (de la - la)	1974-1979
Numele si tipul de organizatiei care asigură educatia si formarea	Facultatea de Automatica si Calculatoare - IPB București
Titlul calificării acordate	Diploma de Inginer
Data (de la - la)	2001-2002
Numele si tipul de organizatiei care asigură educatia si formarea	UPB București (program PHARE)
Titlul calificării acordate	“Inițiere în Managementul proiectelor”

Data (de la - la)  
Numele si tipul de  
organizatiei care asigura  
educatia si formarea  
Titlul calificării acordate

1996  
Facultatea de Electrotehnica - UPB București

- Diploma de Doctor
  - 13 teze de doctorat finalizate la UVT în calitate de conducător științific de doctorat;
  - 43 de participări ca referent în comisii de doctorat la UVT, 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)  
Autoevaluare  
Nivel european (\*)

**Română**

<b>Înțelegere</b>		<b>Vorbire</b>		<b>Sciere</b>
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

**Limba engleza**  
**Limba franceza**

Competențe și abilități  
sociale  
Abilitati si competente  
organizatorice

Multi prieteni, sociabil

- Foarte bune competente didactice si de cercetare;
- Foarte bune abilitați manageriale;
- Capacitatea de a lucra in echipa.

Competente si  
aptitudini tehnice

Proiectare aplicatii CAD, 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

#### **1. Alte specializari si calificari:**

- *instructor acreditat CPI-SA* pentru tehnica predării și cunoștințe generale de informatică, 2003;
- *posesor al Permisului European de Conducere a Computerului - ECDL - R0007634;*

#### **2. Activitatea de cercetare**

- am elaborat **2** *inovații* ;
- am participat la un număr total de **44** *proiecte* ca: director **6**/responsabil **10**/membru în echipă **28** *naționale* **41** /*internaționale* **3**, *obținute prin competiție*, dintre care: **35** *proiecte de cercetare/dezvoltare* (**5/5/27**), **7** *proiecte educaționale/formare continuă* (**1/5/1**);
- am participat la 8 propuneri de proiecte europene: 1 H2020 (director), 1 IEE (partener), 2 FP7 (partener) si 4 COST (director).

#### **3. Publicații științifice**

- am publicat un numar total **314**/prim sau unic autor **198** de articole și comunicări științifice in reviste internaționale/naționale, si volume ale conferintelor naționale/internationale;
- dintre toate acestea **85** sunt articole cotate **WOS** (**8 articole în reviste din zona roșie**), **115** sunt articole cotate Scopus, **196** sunt

articole cotate Google Scholar, și respectiv **119** sunt articole publicate în volume de conferințe naționale/internaționale și reviste naționale necotate în BDI.

- am publicat un număr total / prim autor de **87 / 48** cărți, capitole de cărți și monografii tehnice, dintre acestea un număr total / prim autor de **25 / 8** sunt publicate la edituri prestigioase din străinătate;

- citări în articole de specialitate, dintre care: **312 de citări în lucrări cotate WOS, 591 de citări în lucrări cotate SCOPUS și 1249 de citări în lucrări cotate Google Scholar;**

- **H-index: Google Scholar 14, i-10 index 30; Scopus 10; WOS 8.**

#### **4. Membru al asociațiilor 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* (Asociația Generală a Inginerilor din România) 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 9 Inginerie Electrica 2020-2024, 2024-2028.

- membru CNATDCU, comisia 9 Inginerie Electrica, comisia de contesații 2016-2020;

- expert ARACIS comisia 11, 2015-2024.

#### **5. Experiența internațională, recunoaștere națională și internațională:**

- *Profesor invitat/Visiting Professor* : University of Rouen, France, 2005, Politecnico di Torino, Italy, 2006, 2007, 2009, 2014; University of Sevilla, Spain, 2012; University College of Engineering – Copenhagen, Denmark, 2010;

- *Revizor științific al revistelor internaționale*

-- *cotate WOS: Elsevier* : „AA-Acta Astronautica“, „MSB-Materials Science and Engineering B“, „JPROCONT-Journal of Process Control“, „JCLEPRO- Journal of Cleaner Production“, „Energy“ and „APEN-Applied Energy“; *IEEE*: „IEEE - Transactions on Industrial Electronics (TIE)“, „IEEE - Journal of Photovoltaics“; „IEEE - Transactions on Very Large Scale Integration Systems (TVSLI)“; *MDPI*: „Reliability Engineering and System Safety“, „Energies“; „Energy Report“, „Sustainability“, „Mathematics“, „Open Computer Science“, „Open Physics“; *Springer Nature*: „Electrical Engineering“; *Frontiers*: „Frontiers in Energy Research“;

-- *cotate SCOPUS*: AKTA-IMEKO; „WSEAS-Transactions on Circuits and Systems“,

and more than 35 others IEEE - Conferences and Scopus Journals.

- *Revizor științific al revistelor naționale cotate BDI*: „Scientific Bulletin of Electrical Engineering Faculty-SBEEF“, „Journal of Electrical Engineering, Electronics and Computer Sciences-JEECCS“,

„Electrotechnics, Electronics and Control Systems - EEA“ cotate de CNCSIS în categoria B+;

- *Redactor șef / Redactor șef 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 în categoria B+;

- *Expert European IEE-EACI - Programme*;

- *Lucrări invitate la conferințe internaționale* : WSEAS Bucharest 2006 and Rhodos 2008, IEEE-ECAI Pitesti 2010, EW-DGSRES Pitesti 2012; IEEE-ECAI 2020.

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

-*Președinte/Chairman al conferințelor*: 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;

- *Membru al Comitetului științific/organizare, Revizor al Conferințelor* : RJJSAEM 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, 2023.

- *Diplome și 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 CNCIS 2020 pentru articolul Cristian-Petre Fluieraru, Gabriel Predușcă, **Horia Andrei**, Emil Diaconu, Petru Adrian Cotfas, Daniel Tudor Cotfas, *Determination of Technological Features of a Solar Photovoltaic Cell Made of Monocrystalline Silicon P+PNN+*, International Journal of Photoenergy, Volume 2019, Article ID 7945683, 14 pages, <https://doi.org/10.1155/2019/7945683>, indexat WOS, 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 WOS) 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 WOS), 2021.

- *Topic Editor* of *Energies* 2020-2024 (indexat WOS).

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

Noiembrie 2024  
Prof.dr.ing. Horia ANDREI



**I. Publicații selecție de articole - în Jurnale și Volume de Conferințe indexate ISI-WOS un total de 85 (dintre care 8 în zona roșie); indexate în alte BDI - SCOPUS, IEEEExplore - dintr-un total de 193):**

**ISI-WOS-toate articolele**

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS

**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-WOS](#)

**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-WOS](#)

**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-WOS](#)

**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 Predușcă, **Horia Andrei**,<sup>1</sup> Emil Diaconu, Petru Adrian Cotfas, Daniel Tudor Cotfas, *Determination of Technological Features of a Solar Photovoltaic Cell Made of Monocrystalline Silicon P+PNN+*, International Journal of Photoenergy, Volume 2019, Article ID 7945683, 14 pages, <https://doi.org/10.1155/2019/7945683>, [indexat ISI-WOS](#), **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-WOS](#).

**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-6<sup>th</sup> Int Symposium on Electrical and Electronics Engineering-ISEEE, 18-20 oct. 2019, Galati Romania, paper 14, acceptat pentru prezentare în cadrul conferinței [indexată ISI-WOS](#).

**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-WOS](#).

**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-WOS](#).

**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-WOS](#), **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-WOS](#)

- Ri26. H. Andrei**, V. Ion, E. Diaconu, A. Enescu, I. Udroi, *Energy Consumption Analysis of Security Systems for a Residential Consumer*, IEEE Xlth 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-WOS](#)
- Ri27. H. Andrei**, A. Enescu, E. Diaconu, V. Ion, I. Udroi, *Data Acquisition and Modeling of Cogeneration Power Plant Parameters*, IEEE Xlth 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-WOS](#)
- Ri28. S. Orboiu, H. Andrei**, *DAQ and Power Quality Analysis of Electrical Parameters in Romanian Schools*, IEEE Xlth 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-WOS](#).
- 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-WOS](#).
- 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-WOS](#).
- 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-WOS](#)
- Ri32.** I.D. Deaconu, 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-WOS](#).
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**Ris28.** Gorghiu, G., **Andrei, H.**, Gorghiu, L.M., Popovici, D., Jiga, G., *Study on the progress of Learning Strategy in Education as Result of New Concepts Developed by European Projects*, The 11<sup>th</sup> European Conference E-COMM-LINE 2010, Bucharest, Sept. 27-28, 2010, book 2, pp. 71-76, ISBN-10: 973-1704-18-3, ISBN-13: 978-973-1704-18-0.

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**Ris34.** Andrei Cosmin Gheorghe, **Horia Andrei**, Emil Diaconu, *Data measurement and modeling method of electrical parameters of basic household equipment*, ECAI 2022, indexed by IEEEExplore.

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## **II. Proiecte Naționale (PN - 5) și Internaționale (PI - 3) - cele mai importante în 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, cercetator.

**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, cercetator.

**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.

**PN5.** Soluție Inovativă de Optimizare a Productivității Utilizatorilor prin Monitorizarea Multi-Modală a Activității și a Profilelor - OPTIMIZE", SMIS 121491, cercetator.

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

**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 mo. 619309-EPP-1-2020-LK-EPPKA2-CBHE-JP, European Comission Erasmus +, Higher Education, 2020-2022, expert.

## **III. Cărți (6) și capitole de cărți (3) în edituri internaționale - cele mai importante în ultimii 10 ani (Observație. Capitolele publicate în editura Springer, în numar de 13, au fost precizate la paragraful I ca publicații cotate ISI-WOS):**

**1.** **H.Andrei**, N, Olariu, F. Stan, E. Virjoghe, A. Husu, I. Bancuta, M.Ivan, N. Fidel, *Bazele Electrotehnicii. Indrumar de laborator*, Ed. Bibliotheca, 2019, ISBN 978-606-772-352-6, 213 pagini.

**2.** C. Fluerasu, Corina Fluerasu, 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.

**3. H. Andrei** (coordinator), C. Fluerașu, Elena Vîrjoghe, 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.

**4. 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.

**5.** C. Cepisca, G. Seritan, C. Banica, **H. Andrei**, N. Asimopoulos, S. Ganatsios, *Principles of analog signal conditioning*, pp. 190-237, chapter 4 of the book *Selected Topics in Applied Electrotechnics*, Ed. IWN , Atena, 2012, ISBN: 978-960-508-052-5.

**6.** V. Dogaru Ulieru, C. Cepisă, **H. Andrei**, T. Ivanovici, *Data Acquisition in Photovoltaic Systems*, pp.213-230, chapter 10 of the book *Renewable Energy - Trends and Applications*, edited by Majid Nayeripour and Mostafa Kheshti, InTech, Viena, 2011, ISBN 978-953-307-939-4, 250 pag.

**7. H. Andrei**, C. Cepisca, S.D.Grigorescu, *Power Quality and Electrical Arc Furnaces*, pp. 55-100, chapter 2 of the book *Power Quality*, editor Andreas Eberhard, InTech, Viena, ISBN 978-953-307-180-0, 2011, 570 pag. - **the chapter has reached 14000 downlods (July, 2016)**  
<http://www.intechopen.com/account/login>

**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.

**9. H. Andrei**, Fl. Stan, *Electrical Engineering: Electrotechnics and Electromechanical Converters (in Romanian: Inginerie Electrică Modernă. Electrotehnică și Converteoare Electromecanice. Teorie și aplicații)*, vol. 1, 2, Ed. Bibliotheca, Targoviste, 2010, 900 pag., ISBN 978-93-712-563-7, ISBN 978-973-712-565-1.

#### **IV. Citări selectate dintre articolele indexate în reviste și volume de conferințe indexate ISI WOS și BDI (in total sunt 312 de citari WOS, 591 de citari BDI, 1249 de citari Google Scholar):**

**ISI -WOS** [https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search\\_mode=GeneralSearch&parentOid=&qid=1&SID=U1KDE2fEwKVI5zsuITz&&update\\_back2search\\_link\\_param=yes&page=3&excludeEventConfig=ExcludelfReload](https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search_mode=GeneralSearch&parentOid=&qid=1&SID=U1KDE2fEwKVI5zsuITz&&update_back2search_link_param=yes&page=3&excludeEventConfig=ExcludelfReload)

**a) - Articol citat:** Cepișca, C., **Andrei, H.**, Dogaru-Ulieru, V. *Evaluation of the parameters of a magnetic hysteresis model*, Journal of Materials Processing Technology, volume 181, issue 1-3, year 2007, pp. 172 - 176, indexed **ISI-WOS, impact factor 2,041.**

- **Articole care citeaza:**

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**a2)** Huang, J., Li, X.. *Contactless OLTC system based on dynamic model*, Electric Power Automation Equipment 31 (8), pp. 52-57, 2011, indexed **SCOPUS.**

**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, IEEExplore.**



**a4)** Pop N. C.; Caltun O. F., *Jiles-Atherton Magnetic Hysteresis Parameters Identification*, ACTA PHYSICA POLONICA A Vol. 120, Issue 3, 2011, pp. 491-49, indexed **ISI-WOS, impact factor 0,6**.

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**b2)** *A maximum power point tracking technique based on bypass diode mechanism for PV arrays under partial shading*, Murtaza, A., Chiaberge, M., Spertino, F., Boero, D., De Giuseppe, M. Energy and Buildings, volume 73, issue, year 2014, pp. 13 - 25, indexată ISI, factor impact 3,254

**b3)** *Wireless Monitoring and Remote Control of PV Systems Based on the ZigBee Protocol*, V. Katsioulis, E. Karapidakis, M. Hadjinicolaou, A. Tsikalakis, Springer, Technological Innovation for Sustainability, IFIP Advances in Information and Communication Technology Volume 349, 2011, pp 297-304, Series ISSN 1868-4238, indexed ISI, IF 0.75.

**b4)** *Uncertainty analysis of degradation parameters estimated in long-term monitoring of photovoltaic plants*, Carullo, A., Ferraris, F., Vallan, A., Spertino, F., Attivissimo, F. Measurement, volume 55, issue, year 2014, pp. 641 - 649, indexed ISI, Impact Factor: 1.526

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**b9)** *On evaluating the effects of the incident angle on the energy harvesting performance and MPP estimation of PV modules*, Joe-Air Jiang, Jen-Cheng Wang, Kun-Chang Kuo, Yu-Li Su, Jyh-Cherng Shieh, International Journal of Energy Research, Volume 38, Issue 10, pages 1304-1317, August 2014, ISSN: 1099-114X, Indexat ISI, Impact Factor: 2.737

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**b11)** *The Impact of Solar Radiation Azimuth Angle on the PV Outcomes in Erbil City-Northern Iraq*, Saad Abdulquader Abdulaziz Al-Sheikh, International Research Journal of Advanced Engineering and Science, Volume 3, Issue 1, pp. 268-273, 2018, Indexat ISI, **Impact Factor: 2.051**

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**c2)** *Characterization of PV panel and global optimization of its model parameters using genetic algorithm*, M.S. Ismail, M. Moghavvemi, T.M.I. Mahlia, [Energy Conversion and Management](#) -Elsevier, ISSN: 0196-8904, **ISI-WOS, Impact Factor 2.216**, Volume 73, September 2013, Pages 10-25.

**c3)** *Experimental investigation of partial shading scenarios on PV (photovoltaic) modules*, Alberto Dolar, George Cristian Lazaroiu, Sonia Leva, [Giampaolo Manzolinia](#), Energy, Volume 55, 15 June 2013, Pages 466-475, ISSN 0360-5442, indexed **ISI-WOS, factor impact 4,159.**

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**c8)** *On-grid and off-grid batch-ED (electrodialysis) process: Simulation and experimental tests*, Uche, J., Círez, F., Bayod, A.A., Martínez, A., Energy, volume 57, issue , year 2013, pp. 44 - 54, ISSN 0360-5442, indexed **ISI-WOS, factor impact 4,159**

**c9)** *Solar car aerodynamic design for optimal cooling and high efficiency*, Vinnichenko, N.A., Uvarov, A.V., Znamenskaya, I.A., Ay, H., Wang, T.-H., Solar Energy, volume 103, issue , year 2014, pp. 183 - 190, ISSN: 0038-092X, indexed **ISI-WOS, impact factor 3.541**

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**c11)** *Reconfigurable electrical interconnection strategies for photovoltaic arrays: A review*, Damiano La Manna, Vincenzo Li Vigni, Eleonora Riva Sanseverino, Vincenzo Di Dio, Pietro Romano, Renewable and Sustainable Energy Reviews, Volume 33, May 2014, Pages 412-426, indexed **ISI-WOS, impact factor 5.510**

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**c15)** *A Circuit for Energy Harvesting Using On-Chip Solar Cells*, Ghosh, S.; Hsuan-Tsung Wang ; Leon-Salas, W.D., IEEE Transactions on Power Electronics, sept. 2014, Volume: 29, Issue: 9, Page(s): 4658 - 4671, ISSN: 0885-8993, indexed **ISI-WOS, impact factor 5.726**

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**c19)** *Two-Stage Chaos Optimization Search Application in Maximum Power Point Tracking of PV Array*, Lihua Wang, Xueye Wei, Tianlong Zhu, and Junhong Zhang, Mathematical Problems in Engineering, Volume 2014, Article ID 464835, 11 pages <http://dx.doi.org/10.1155/2014/464835>, indexed **ISI-WOS, impact factor 1.082**

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**c29)** Nie, X.-H., *Application of the strong tracking Unscented Kalman filter algorithm in photovoltaic system maximum power point tracking*, 2013, Dianli Xitong Baohu yu Kongzhi/Power System Protection and Control, indexed **SCOPUS**.

**c30)** Hadji, S., Gaubert, J.-P., Krim, F. *Theoretical and experimental analysis of genetic algorithms based MPPT for PV systems*, Energy Procedia, vol. 74, issue , year 2015, pp. 772 - 787, indexed **ISI-WOS**, Impact Factor: 0.786.

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