

LISTA DE LUCRĂRI

Simona – Vasilica OPREA

1. Lista 10 lucrări cele mai relevante

Ri1	Oprea, S-V., Bâra A., <i>An Edge-Fog-Cloud Computing Architecture for IoT and Smart Metering Data</i> , Peer-to-Peer Netw. Appl. (2023). https://doi.org/10.1007/s12083-022-01436-y
Ri2	Oprea, S-V., Bâra, A., <i>Mind the gap between PV generation and residential load curves: Maximizing the roof-top PV usage for prosumers with an IoT-based Adaptive Optimization and Control Module</i> , Expert Systems with Applications, Volume 212, February 2023, 118828, https://doi.org/10.1016/j.eswa.2022.118828
Ri3	S.V. Oprea, A. Bâra, <i>Devising a trading mechanism with a joint price adjustment for local electricity markets using blockchain. Insights for policy makers</i> , Elsevier Energy Policy, Volume 152, DOI: 10.1016/j.enpol.2021.112237, Article Number: 112237, Published: May 2021, ISSN: 0301-4215, WOS:000636054400028
Ri4	S.V. Oprea, A. Bâra, <i>Edge and fog computing using IoT for direct load optimization and control with flexibility services for citizen energy communities</i> , Elsevier Knowledge Based-Systems, Volume 228, Article Number 107293, DOI10.1016/j.knosys.2021.107293, SEP 27 2021, ISSN 0950-7051, WOS: 000659800800001
Ri5	Cebeci, ME, Tor, OB, S.V. Oprea, Bâra, A, <i>Consecutive Market and Network Simulations to Optimize Investment and Operational Decisions Under Different RES Penetration Scenarios</i> , IEEE Transactions on Sustainable Energy, Volume: 10, Issue: 4, Pages: 2152-2162, DOI: 10.1109/TSTE.2018.2881036, Published: OCT 2019, ISSN 1949-3029, WOS:000487199700050
Ri6	S.V. Oprea, A. Bâra, <i>Ultra-short-term forecasting for photovoltaic power plants and real-time key performance indicators analysis with big data solutions. Two case studies - PV Agigea and PV Giurgiu located in Romania</i> , Computers in Industry, Volume: 120, Article Number: 103230, DOI: 10.1016/j.compind.2020.103230, pages:1-22, Published: SEP 2020, ISSN0166-3615, WOS:000538762600005
Ri7	S.V. Oprea, A. Bâra, G. Ifrim, <i>Optimizing the Electricity Consumption with a High Degree of Flexibility Using a Dynamic Tariff and Stackelberg Game</i> , Springer Journal of Optimization Theory and Applications, Volume190, Issue1, Page151-182, DOI10.1007/s10957-021-01876-1, JUL 2021, ISSN0022-3239, WOS 000659800800001
Ri8	S.V. Oprea, A. Bâra, G. Ifrim, <i>Flattening the electricity consumption peak and reducing the electricity payment for residential consumers in the context of smart grid by means of shifting optimization algorithm</i> , Elsevier Computers & Industrial Engineering, Volume 122, August 2018, Pages 125-139, Elsevier, https://doi.org/10.1016/j.cie.2018.05.053 , ISSN0360-8352, WOS:000438478700008
Ri9	S.V. Oprea, A. Bâra, GA Ifrim, L. Coroianu, <i>Day-ahead electricity consumption optimization algorithms for smart homes</i> , Computers & Industrial Engineering, Volume: 135, Pages: 382-401, DOI: 10.1016/j.cie.2019.06.023, Published: SEP 2019, ISSN0360-8352, WOS:000482244100030
Ri10	Oprea, SV., Bâra, A. <i>Machine learning classification algorithms and anomaly detection in conventional meters and Tunisian electricity consumption large datasets</i> , Computers and Electrical Engineering, Volume 94, September 2021, https://doi.org/10.1016/j.compeleceng.2021.107329 , ISSN 0045-7906, WOS:000694013100024

2. Articole în jurnale indexate ISI

45	S. -V. Oprea, A. Bâra, A. -I. Andreescu and M. P. Cristescu, Conceptual Architecture of a Blockchain Solution for E-Voting in Elections at the University Level , in <i>IEEE Access</i> , doi: 10.1109/ACCESS.2023.3247964, https://ieeexplore.ieee.org/document/10049991	IEEE 2023
44	Oprea, S-V., Bâra A., An Edge-Fog-Cloud Computing Architecture for IoT and Smart Metering Data , <i>Peer-to-Peer Netw. Appl.</i> (2023). https://doi.org/10.1007/s12083-022-01436-y	Springer 2023
43	Cristescu, M.P.; Nerisanu, R.A.; Mara, D.A.; Oprea, S.-V. Using Market News Sentiment Analysis for Stock Market Prediction . Mathematics 2022, 10, 4255. https://doi.org/10.3390/math10224255	MDPI 2022
42	Oprea, S-V., Bâra, A., Mind the gap between PV generation and residential load curves: Maximizing the roof-top PV usage for prosumers with an IoT-based Adaptive Optimization and Control Module , Expert Systems with Applications, Volume 212 , February 2023, 118828, https://doi.org/10.1016/j.eswa.2022.118828	Elsevier 2022
41	Oprea, S-V., Bâra, A., A measurement model for electricity Consumers' awareness with covariance structure Analyses. A solid pillar for boosting demand response programs , Sustainable Energy Technologies and Assessments, Volume 53, Part C , October 2022, 102738, https://doi.org/10.1016/j.seta.2022.102738	Elsevier 2022

40	Oprea, S-V., Bâra, A., Ciurea C.E., A novel cost-revenue allocation computation for the competitiveness of balancing responsible parties, including RES. Insights from the electricity market in Renewable Energy , <i>Renewable Energy</i> , Volume 199, November 2022, Pages 881-894, https://doi.org/10.1016/j.renene.2022.09.007	Elsevier 2022
39	Simona-Vasilica Oprea, Adela Bâra, A signaling game-optimization algorithm for residential energy communities implemented at the edge-computing side , <i>Computers & Industrial Engineering</i> , Volume 169, 2022, 108272, ISSN 0360-8352, https://doi.org/10.1016/j.cie.2022.108272 . <i>Computers & Industrial Engineering</i> 174 (2022) 108812: Corrigendum to “A signaling game-optimization algorithm for residential energy communities implemented at the edge-computing side” [Comput. Ind. Eng. 169 (2022) 108272]: The authors regret that by mistake the acknowledgement was wrongly written. It should have been “This work was supported by a grant of the Ministry of Research, Innovation and Digitization, CNCSUEFISCDI, project number PN-III-P4-PCE-2021-0334, within PNCDI III.” https://www.sciencedirect.com/science/article/pii/S0360835222008002?via%3Dihub	Elsevier 2022
38	Simona-Vasilica Oprea, Adela Bâra, Vlad Diaconita. „ A motivational local trading framework with 2-round auctioning and settlement rules embedded in smart contracts for a small citizen energy community ” <i>Renewable Energy</i> , Volume 193, 2022, Pages 225-239, ISSN 0960-1481, https://doi.org/10.1016/j.renene.2022.04.149 .	Elsevier 2022
37	Simona-Vasilica Oprea, Adela Bâra, Cristian-Eugen Ciurea, and Laura F. Stoica. 2022. „ Smart Cities and Awareness of Sustainable Communities Related to Demand Response Programs: Data Processing with First-Order and Hierarchical Confirmatory Factor Analyses ” <i>Electronics</i> 11, no. 7: 1157. https://doi.org/10.3390/electronics11071157	MDPI 2022
36	SV Oprea, A Bara, Feature engineering solution with structured query language analytic functions in detecting electricity frauds using machine learning . <i>Sci Rep</i> 12, 3257. https://doi.org/10.1038/s41598-022-07337-7	Nature Research 2022
35	SV Oprea, A Bara, V Diaconita, C Ceaparu, AA Ducman, Big Data Processing for Commercial Buildings and Assessing Flexibility in the Context of Citizen Energy Communities . <i>IEEE Access</i> , vol. 9, pages 168715 – 168730, 10.1109/ACCESS.2021.3137352	IEEE 2021
34	Oprea S-V, Bâra A, Puican FC, Radu IC. Anomaly Detection with Machine Learning Algorithms and Big Data in Electricity Consumption . <i>Sustainability</i> . 2021; 13(19):10963. https://doi.org/10.3390/su131910963	MDPI 2021
33	Oprea, SV., Bâra, A. Machine learning classification algorithms and anomaly detection in conventional meters and Tunisian electricity consumption large datasets , <i>Computers and Electrical Engineering</i> , Volume 94, September 2021, https://doi.org/10.1016/j.compeleceng.2021.107329	Elsevier 2021
32	Oprea, SV., Bâra, A. Edge and fog computing using IoT for direct load optimization and control with flexibility services for citizen energy communities , <i>Knowledge-Based Systems</i> Volume 228, 27 September 2021, https://doi.org/10.1016/j.knosys.2021.107293	Elsevier 2021
31	Oprea, SV., Bâra, A. & Ifrim, G.A. Optimizing the Electricity Consumption with a High Degree of Flexibility Using a Dynamic Tariff and Stackelberg Game . <i>Journal of Optimization Theory and Application</i> (2021), 190, pages 151–182, https://doi.org/10.1007/s10957-021-01876-1	Springer 2021
30	C. Bucur, BG Tudorică, SV Oprea, D Nancu, DM Dușmănescu, Insights into Energy Indicators Analytics Towards European Green Energy Transition using Statistics and Self-Organizing Maps , <i>IEEE Access</i> , 2021, DOI: 10.1109/ACCESS.2021.3075175	IEEE 2021
29	S.V. Oprea, A. Bara, Devising a trading mechanism with a joint price adjustment for local electricity markets using blockchain. Insights for policy makers , <i>Energy Policy</i> , Volume 152, May 2021, https://doi.org/10.1016/j.enpol.2021.112237	Elsevier 2021
28	Simona Oprea, Adela Bara, Bogdan George Tudorica, Maria Irene Calinoiu, Mihai Alexandru Botezatu, Insights into Demand Side Management with Big Data Analytics in Electricity Consumers’ Behavior , <i>Computers and Electric Engineering</i> , Volume 89, January 2021, https://www.sciencedirect.com/science/article/pii/S0045790620307540	Elsevier 2021
27	SV Oprea; Bâra, Adela; Marales, Răzvan C.; Florescu, Margareta-Stela. 2021. Data Model for Residential and Commercial Buildings. Load Flexibility Assessment in Smart Cities <i>Sustainability</i> 13, no. 4: 1736. https://doi.org/10.3390/su13041736	MDPI 2021
26	SV OPREA, A BÂRA, AI Andreescu, Two Novel Blockchain-Based Market Settlement Mechanisms Embedded into Smart Contracts for Securely Trading Renewable Energy , <i>IEEE</i>	IEEE 2020

	Access, November 2020, DOI: 10.1109/ACCESS.2020.3040764, https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9272276	
25	S. Teimourzadeh;O. B. Tör;M.E. Cebeci;A. Bara;S. V. Oprea;S. M. Kısakürek, Enlightening Customers on Merits of Demand-Side Load Control: A Simple-But-Efficient-Platform , IEEE Access, October 2020, DOI: 10.1109/ACCESS.2020.3032745, https://ieeexplore.ieee.org/document/9234487	IEEE 2020
24	Oprea, S.-V.; Bâra, A.; Bologa, R.A.; Preotescu, D.; Coroianu, L.; A Trading Simulator Model for the Wholesale Electricity Market , IEEE Access, October 2020, https://ieeexplore.ieee.org/document/9215970 , DOI: 10.1109/ACCESS.2020.3029291, (Volume: 8) Page(s): 184210 – 184230	IEEE 2020
23	S.V. Oprea, Bara, A, Ultra-short-term forecasting for photovoltaic power plants and real-time key performance indicators analysis with big data solutions. Two case studies – PV Agigea and PV Giurgiu located in Romania , Computers in Industry, Volume: 120, Article Number: 103230, DOI: 10.1016/j.compind.2020.103230, Published: September 2020, WOS:000538762600005	Elsevier 2020
22	S.V. Oprea, Bara, A, Preda, S, Tor, OB, A Smart Adaptive Switching Module Architecture Using Fuzzy Logic for an Efficient Integration of Renewable Energy Sources. A Case Study of a RES System Located in Hulubesti, Romania , Sustainability, Volume: 12, Issue: 15, Article Number: 6084, DOI: 10.3390/su12156084, Published: August 2020, WOS:000559515100001	MDPI 2020
21	S.V. Oprea, Bara, A, Tudorica, BG, Dobrita, G, Sustainable Development with Smart Meter Data Analytics Using NoSQL and Self-Organizing Maps , Sustainability, Volume: 12, Issue: 8, Article Number: 3442, DOI: 10.3390/su12083442, Published: April 2020, WOS:000535598700375	MDPI 2020
20	Tor, OB, Cebeci, ME, Koc, M, Teimourzadeh, S, Atli, D, S.V. Oprea, Bara, A, Peak shaving and technical loss minimization in distribution grids: a time-of-use-based pricing approach for distribution service tariffs , Turkish Journal of Electrical Engineering and Computer Sciences, Volume: 28, Issue: 3, Pages: 1386-1404, DOI: 10.3906/elk-1907-30, Published: 2020, WOS:000532359500014	TUBITAK 2020
19	S.V. Oprea, Bara, A, Setting the Time-of-Use Tariff Rates With NoSQL and Machine Learning to a Sustainable Environment , IEEE ACCESS, Volume: 8, Pages: 25521-25530, DOI: 10.1109/ACCESS.2020.2969728, Published: 2020, WOS:000524658400002	IEEE 2020
18	Cebeci, ME, Tor, OB, Oprea, SV, Bara, A, Consecutive Market and Network Simulations to Optimize Investment and Operational Decisions Under Different RES Penetration Scenarios , IEEE Transactions on Sustainable Energy, Volume: 10, Issue: 4, Pages: 2152-2162, DOI: 10.1109/TSTE.2018.2881036, Published: October 2019, WOS:000487199700050	IEEE 2019
17	Oprea, SV, Bara, A, Ifrim, GA, Coroianu, L, Day-ahead electricity consumption optimization algorithms for smart homes , Computers & Industrial Engineering, Volume: 135, Pages: 382-401, DOI: 10.1016/j.cie.2019.06.023, Published: September 2019, WOS:000482244100030	Elsevier 2019
16	Teimourzadeh, S, Tor, OB, Cebeci, ME, Bara, A, Oprea, SV, A three-stage approach for resilience-constrained scheduling of networked microgrids , Journal of Modern Power Systems and Clean Energy, Volume: 7, Issue: 4, Pages: 705-715, DOI: 10.1007/s40565-019-0555-0, Published: July 2019, WOS:000477895600005	Springer 2019
15	Oprea, SV, Bara, A, Machine Learning Algorithms for Short-Term Load Forecast in Residential Buildings Using Smart Meters, Sensors and Big Data Solutions , IEEE Access, Volume: 7, Pages: 177874-177889, DOI: 10.1109/ACCESS.2019.2958383, Published: 2019, WOS:000509483800046	MDPI 2019
14	Oprea, SV, Bara, A, Preotescu, D, Elefterescu, L, Photovoltaic Power Plants (PV-PP) Reliability Indicators for Improving Operation and Maintenance Activities. A Case Study of PV-PP Agigea Located in Romania , IEEE Access, Volume: 7, Pages: 39142-39157, DOI: 10.1109/ACCESS.2019.2907098, Published: 2019, WOS:000464212600001	IEEE 2019
13	Oprea, SV, Bara, A, Diaconita, V, Sliding Time Window Electricity Consumption Optimization Algorithm for Communities in the Context of Big Data Processing , IEEE Access, Volume: 7, Pages: 13050-13067, DOI: 10.1109/ACCESS.2019.2892902, Published: 2019, WOS:000458177800075	IEEE 2019
12	Preda, S, Oprea, SV, Bara, A, Belciu, A, PV Forecasting Using Support Vector Machine Learning in a Big Data Analytics Context , Symmetry-Basel, Volume: 10, Issue: 12, Article Number: 748, DOI: 10.3390/sym10120748, Published: December 2018, WOS:000454725100086	MDPI 2018

11	S.V. Oprea, A.Bâra, A.Uță, A. Pîrjan, G. Căruțașu, Analyses of Distributed Generation and Storage Effect on the Electricity Consumption Curve in the Smart Grid Context , Sustainability 2018, 10, 2264; doi:10.3390/su10072264, MDPI, 2017, WOS:000440947600155	MDPI 2018
10	S.V. Oprea, A. Bâra, G.Ifrim, Flattening the electricity consumption peak and reducing the electricity payment for residential consumers in the context of smart grid by means of shifting optimization algorithm , Elsevier Computers & Industrial Engineering, Volume 122, August 2018, Pages 125-139, Elsevier, https://doi.org/10.1016/j.cie.2018.05.053, WOS:000438478700008	Elsevier 2018
9	S.V. Oprea, A.Bâra, G. Majstrovic, Aspects Referring Wind Energy Integration from the Power System Point of View in the Region of Southeast Europe. Study Case of Romania , Energies, 2018, 11, 251; doi:10.3390/en11010251, 2018, WOS:000424397600250	MDPI 2018
8	S.V. Oprea, A. Pîrjan, G. Căruțașu, D.M. Petroșanu, A. Bâra, J.L. Stănică, C. Coculescu, Developing a Mixed Neural Network Approach to Forecast the Residential Electricity Consumption Based on Sensor Recorded Data , Sensors, 2018, 18, 1443; doi:10.3390/s18051443, 2018, WOS:000435580300142	MDPI 2018
7	S.V. Oprea, A.Bâra, A. Reveiu, Informatics Solution for Energy Efficiency Improvement and Consumption Management of Householders , Energies, 2018, 11, 138; doi:10.3390/en11010138, 2018, WOS:000424397600138	MDPI 2018
6	S.V. Oprea, A.Bâra, Analyses of Wind and Photovoltaic Energy Integration from the Promoting Scheme Point of View: Study Case of Romania , Energies, 2017, 10, 2101; doi:10.3390/en10122101, 2017, WOS:000423156900172	MDPI 2017
5	A. Pîrjan, S.V. Oprea, G. Căruțașu, D.M. Petroșanu, A. Bâra, C. Coculescu, Devising Hourly Forecasting Solutions Regarding Electricity Consumption in the Case of Commercial Center Type Consumers , Energies, 2017, 10(11), 1727; (doi:10.3390/en10111727); ISSN: 1996-1073, WOS:000417046500046	MDPI 2017
4	S.V. Oprea, A.Bâra, M. Cebeci, O.B. Tor, Promoting peak shaving while minimizing electricity consumption payment for residential consumers by using storage devices , TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, Turk J Elec Eng & Comp Sci, E-ISSN: 1303-6203 ISSN: 1300-0632, DOI: 10.3906/elk-1606-152, 2017, WOS:000412571400019	TUBITAK 2017
3	I.Lungu, A.Bâra, G.Căruțașu, A.Pîrjan, S.V. Oprea, Prediction intelligent system in the field of renewable energies through neural networks , Economic Computation and Economic Cybernetics Studies and Research, nr.1/2016, ISSN 0424-267X; WOS:000372478800005	EcoCyb 2016
2	I. Lungu, G. Căruțașu, A. Pîrjan, S.V. Oprea, A. Bâra, A two-step forecasting solution and upscaling technique for small size wind farms located on hilly terrain in Romania , Studies in Informatics and Control Journal, vol 25/issue 1, 2016, ISSN 1220-1766; WOS:000372945700009	SIC-ICI 2016
1	A. Bâra, I. Lungu, S.V. Oprea, I. Botha, A. Chinie, Model assumptions for efficiency of wind power plants' operation , Economic Computation and Economic Cybernetics Studies and Research, nr. 4/2014, ISSN 0424-267X; WOS:000346684700007	EcoCyb 2014

3. Teza(-ele) de doctorat

T1	Oprea Simona Vasilica - Aspecte privind accesul deschis la rețelele electrice. Integrarea surselor regenerabile de energie, Universitatea Politehnica, Bucuresti, 2009, coordonator prof.dr. ing. Mircea Eremia
T2	Oprea Simona Vasilica - Soluții informatice de asistare a deciziilor privind optimizarea consumului de energie electrica în rețele inteligente de tip smart grid, Academia de Studii Economice din București, 2017, coordonator prof.univ.dr. Ion LUNGU

4. Cărți/cursuri

Ca	Cărți de specialitate publicate în edituri recunoscute
Ca1	Osman Bulent Tor, Adela Bâra, Simona Vasilica Oprea , Erkut Cebeci, Dan Preotescu, George Ifrim, Vlad Diaconita, Ana-Ramona Bologa, Anda Belciu, Anca Andreescu, Iuliana Botha - <i>INTELLIGENT SYSTEM FOR TRADING ON WHOLESALE ELECTRICITY MARKET (SMARTRADE), BEST PRACTICES GUIDE</i> , Editura ASE, 2020, ISBN 978-606-34-0348-4
Ca2	Simona Vasilica Oprea , <i>Solutii informatice pentru managementul consumului de energie electrica in retele de tip smart grid</i> , Editura ASE, 2018, ISBN 978-606-34-0246-3, 178 pagini

Ca3	Ileana Adina Uta, Anca Ioana Andreescu, Simona Vasilica Oprea , <i>Pachete software si aplicatii SAS</i> , Editura ASE, 2018, ISBN 978-606-34-0252-4, 206 pagini
Ca4	Adela Bâra, George Carutasu, Alexandru Pirjan, Cornelia Paulina Botezatu, Simona Vasilica Oprea , Iuliana Botha, Anda Belciu - <i>Sistem inteligent pentru predicția, analiza și monitorizarea indicatorilor de performanță a proceselor tehnologice și de afaceri în domeniul energiilor regenerabile (SIPAMER), Volumul II – Dezvoltarea și implementarea prototipului informatic</i> , Editura Pro Universitaria, ISBN: 978-606-26-0818-7, 152 pagini
Ca5	Adela Bâra, Cornelia Paulina Botezatu, George Carutasu, Simona Vasilica Oprea , Alexandru Pirjan, Ion Lungu, Adina Uta, Anca Andreescu, Alexandra Florea - <i>Sistem inteligent pentru predicția, analiza și monitorizarea indicatorilor de performanță a proceselor tehnologice și de afaceri în domeniul energiilor regenerabile (SIPAMER), Volumul I – Analiza sistemului și identificarea soluțiilor de realizare</i> , Editura Pro Universitaria, ISBN: 978-606-26-0748-7, 322 pagini http://www.prouniversitaria.ro/carte/sistem-inteligent-pentru-predictia-analiza-si-monitorizarea-indicatorilor-de-performanta-a-proceselor-tehnologice-si-de-afaceri-in-domeniul-energiilor-regenerabile-sipamer-volumul-i-analiza-sistemului-si-identificarea-solutiilor-de-realizare
Ca6	Adela Bâra, Iuliana Botha, Anca Fodor, Ion Lungu, Simona Vasilica Oprea – <i>SGBD Oracle. Limbajul SQL</i> , Editura ASE, 2016, ISBN 978-606-34-0133-6; 166 pagini din care 30 de pagini contribuție proprie
Ca7	Adela Bâra, Simona Vasilica Oprea , Iuliana Botha, Anda Belciu - <i>Sisteme informatice inteligente pentru asistarea deciziilor în medii cu predictibilitate redusă</i> , Editura ASE, 2017, ISBN 978-606-34-0149-7, 247 pagini, din care 62 pagini contribuție proprie
D	2. Capitole publicate în volume colective, capitole teoretice redactate
D1	S.V. Oprea , A.Bâra - <i>Recent Improvements of Power Plants Management and Technology, Chapter 2: Key technical performance indicators for power plants</i> , InTech — Open Access Company Publishing, 2017, ISBN 978-953-51-5317-7, https://www.intechopen.com/books/recent-improvements-of-power-plants-management-and-technology/key-technical-performance-indicators-for-power-plants
D2	A.Bâra, S.V. Oprea - <i>Artificial Neural Networks, Chapter: Electricity consumption and renewables generation forecasting with artificial neural networks</i> , InTech — Open Access Company Publishing, 2017, ISBN 978-953-51-5676-5;
D3	S.V. Oprea , A. Pirjan, I. Lungu, A.G. Fodor - <i>Forecasting solutions for photovoltaic power plants in Romania</i> , in: Silaghi G., Buchmann R., Boja C. (eds) Informatics in Economy. IE 2016. 15th International Conference, IE 2016. Cluj-Napoca, Romania, Series title: Lecture Notes in Business Information Processing, June 2-3, 2016, Revised Selected Papers, vol. 273, edition 1, pp. 144-158, Springer Cham, ISSN: 1865-1348; DOI: 10.1007/978-3-319-73459-0_12, Print ISBN 978-3-319-73458-3, Online ISBN 978-3-319-73459-0.

5. Proiecte de cercetare

P1	Director de proiect PCE – Developing a Model-based Digital Twin Reference Architecture for Active Energy Consumers and Smart Communities (SMART-TWINS), Proiect Cercetare Experimentală, Competiția PCE 2021, Valoare totală 1.200.000 RON, durată 36 luni (2022-2025), Contract nr. PCE 35/2022, cod PN-III-P4-PCE-2021-0334
P2	Director de proiect internațional - Soluții de agregare multi-nivel pentru a facilita un răspuns optim la cererea de energie și flexibilitatea rețelei electrice (Multi-layer aggregator solutions to facilitate optimum demand response and grid flexibility), PN III: Cooperarea Europeană și Internațională, Subprogram 3.2 - Orizont 2020, Tip proiect: ERANET H2020, Acronim: SMART-MLA, PERIOADA DE IMPLEMENTARE: 1 noiembrie 2018 – 31 octombrie 2021, Valoare 150.000 Euro
P3	Director de proiect național - Soluții Big Data pentru managementul consumului de energie electrică în vederea îmbunătățirii strategiilor de piață și a decontării pentru operatorii rețelelor de distribuție (BIGDATA4GRID), PN-III-P2-2.1-PED-2019-1198, Proiect Experimental Demonstrativ, Competiția PED 2019, Valoare totală 600.000, coordonator ASE, partener ICPE România, durată 24 luni, Contract nr. 462PED/28.10.202
P4	Director de proiect național - Soluții informatice pentru analiza și optimizarea consumului de energie electrică în rețele inteligente (SMART-OPTIM), PN-III-P2-2.1-BG-2016-0286, Programul Creșterea competitivității economiei românești prin cercetare, dezvoltare și inovare, Subprogramul 2.1. Competitivitate prin cercetare, dezvoltare și inovare Competiția Bridge Grant (Transfer de cunoaștere la agentul economic), Domeniul 3 - Energie, medii și schimbări climatice, Valoare totală buget 450.000, nr. Contract 77BG/2016, durată proiect 24 luni;
P5	Membri în echipa de cercetare - Soluție informatică complexă de optimizare a procedurilor de operare tehnică a centralelor fotovoltaice (OPTIMPV), cod proiect PN-III-P2-2.1-PTE-2016-0032, Programului Creșterea competitivității

	economiei românești prin cercetare, dezvoltare și inovare, Subprogramul 2.1. Competitivitate prin cercetare, dezvoltare și inovare, Competitia Transfer la operatorul economic (PTE), 2016-2018, coordonator ICPE SA, responsabil ASE prof.univ.dr. Adela Bara, Valoare totala 1.646.491 RON
P6	Membru în echipa de cercetare - Sistem inteligent pentru realizarea ofertelor pe piața angro de energie electrică (SMARTRADE), Programul Operational Competitivitate - Axa1 (POC-A1-A1.1.4-E-2015) Tip de proiect: Proiecte CD pentru atragerea de personal cu competențe avansate din străinătate, 2016-2020, director proiect Osman Bülent TÖR - responsabil ASE, valoare 5.165.712 RON
P7	Membru în echipa de cercetare - Sistem inteligent pentru predicția, analiza și monitorizarea indicatorilor de performanță a proceselor tehnologice și de afaceri în domeniul energiilor regenerabile, cod PN-II-PT-PCCA-2013-4-0996, Proiecte Colaborative de Cercetare Aplicativă (PCCA2013), DOMENIUL 2 – ENERGIE, Valoare totală buget 1.000.000 RON, cofinanțare 150.000 RON, nr contract 49/2014, 2014-2016 - director Adela Bâra;
P8	Membru în echipa de cercetare - Soluții informatice pentru asistarea procesului decizional în mediile incerte și cu evoluții puțin predictibile în vederea integrării în rețele de tip grid, proiect câștigat prin competiția PN2-TE, Resurse Umane, Cod 332, Valoare totală 550.000 RON, director Adela Bâra;