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Instituția unde este titular: Universitatea „Ștefan cel Mare” din Suceava  
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## **L I S T A**

### **lucrărilor științifice în domeniul disciplinelor din postul didactic**

#### **A. Teza de doctorat**

“Contributii la cresterea vitezei de procesare in modemuri” sustinuta public pe data de 24.04.1998 in specializarea “Componente, dispozitive si circuite electronice”, conducator stiintific prof. dr. ing. Gheorghe Maxim, Universitatea „Gh. Asachi” Iasi.

#### **B. Cărți si capitole în cărți publicate în ultimii 10 ani**

1. N.C Gaitan, I Ungurean, V.G. Gaitan, V Popa, „Utilizarea specificatiilor OPC DA pentru implementarea aplicatiilor distribuite de tip SCADA – implementare, utilizare”, ISBN 978-617-7172-20-7, 296 pagini, Editura DrukArt – Cernauti, Ucraina, 300 exemplare, 2014
2. V.G. Gaitan, I Ungurean, N.C Gaitan, V Popa, „Utilizarea specificatiilor OPC DA pentru implementarea aplicatiilor distribuite de tip SCADA, ISBN 978-966-2021-69-1, 328 pagini, Editura DrukArt – Cernauti, Ucraina, 300 exemplare, 2013
3. Valentin Popa, Vasile Gheorghita Gaitan, « Echipamente periferice si interfatare », Editura MATRIX ROM Bucuresti, ISBN 973-685-678-X, 220 pg., 2004.
4. Vasile Gheorghita Gaitan, Valentin Popa, Andy Cristian Tanase, « Arhitectura retelelor industriale locale », Editura MATRIX ROM Bucuresti, ISBN 973-685-849-9, 300 pg., 2004
5. V. POPA, E. COCA, M. DIMIAN, Applications of RFID Systems - Localization and Speed Measurement, in "Radio Frequency Identification Fundamentals and Applications Bringing Research to Practice", pag-18-33, ISBN: 978-953-7619-73-2, INTECH, 2010, Available from: <http://www.intechopen.com/articles/show/title/applications-of-rfid-systems-localization-and-speed-measurement>
6. E. COCA, V. POPA, Third Generation Active RFID from the Locating Applications Perspective, chapter in Current Trends and Challenges in RFID, ISBN 978-953-307-356-9, pg 455-476 INTECH, iulie 2011, Viena
7. Ioan Ungurean, Cornel Turcu, Vasile Gaitan and Valentin Popa, An RFID-Based Anti-Counterfeiting Track and Trace Solution, chapter in Designing and Deploying RFID Applications, ISBN: 978-953-307-265-4, InTech, Iunie 2011 Viena Available from: <http://www.intechopen.com/books/designing-and-deploying-rfid-applications/an-rfid-based-anti-counterfeiting-track-and-trace-solution>

#### **Indrumare de laborator**

8. Valentin Popa, « Electronica aplicata, Indrumar de laborator », Editura Universitatea “Stefan cel Mare” Suceava, 100 pag., 1995
9. Valentin Popa, Alexandru Marcu, Liviu Tigaieru, « Electronica analogica, Indrumar de proiectare », Editura Universitatea “Stefan cel Mare” Suceava, 52 pag., 1997
10. Valentin Popa, Alexandru Marcu, Liviu Tigaieru, « Dispozitive si circuite electronice II, Indrumar de laborator », Editura Universitatea “Stefan cel Mare” Suceava, 74 pag., 1997.
11. Liviu Tigaieru, Valentin Popa, « Electronica analogica, Indrumar de proiectare », Editura Universitatea “Stefan cel Mare” Suceava, 52 pag, 1998.

#### **C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani**

##### **Lucrari in reviste cotate ISI in ultimii 10 ani**

1.	Cailean, A.-M., Cagneau, B. ; Chassagne, L. ; Dimian, M. ; Popa, V., Novel Receiver Sensor for Visible Light Communications in Automotive Applications, IEEE Sensors Journal, vol. 15, issue 8, pag. 4632-4639, Aug. 2015 Impact factor 2019: 3,073 <b>Q2 - zona galbena</b> ISSN: 1530-437X, DOI: 10.1109/JSEN.2015.2425473
2.	Adrian-Ioan Petrariu, Valentin Popa, Analysis and Design of a Long Range PTFE Substrate UHF RFID Tag for Cargo Container Identification, Journal of Electrical Engineering. Volume 67, Issue 1, Pages 42–47, ISSN 1335-3632, ISSN (Online) 1339-309X, DOI: 10.1515/jee-2016-0006, March 2016, Impact factor 2019: 0.686
3.	Cailean, Alin-Mihai; Dimian, Mihai; Popa, Valentin, Chassagne, Luc, Cagneau, Barthelemy, Novel DSP Receiver Architecture for Multi-Channel Visible Light Communications in Automotive Applications, IEEE SENSORS JOURNAL Volume: 16, Issue: 10, Pages: 3597-3602, DOI: 10.1109/JSEN.2016.2529654, Published: MAY 15 2016, Impact factor 2019: 3,073, <b>Q2 - zona galbena</b> ISSN: 1530-437X, DOI: 10.1109/JSEN.2015.2425473
4.	Lavric, Alexandru; Popa, Valentin, Performance Evaluation of LoRaWAN Communication Scalability in Large-Scale Wireless Sensor Networks, WIRELESS COMMUNICATIONS & MOBILE COMPUTING JOURNAL, Article Number: 6730719, Published: 2018, DOI: 10.1155/2018/6730719, , ISSN: 1530-8669, Impact factor 2019: 1,819 <b>Q3</b>
5.	Lavric Alexandru, Petrariu Adrian, Popa, Valentin - Long Range SigFox Communication Protocol Scalability Analysis Under Large-Scale, High-Density Conditions, IEEE ACCESS, Volume: 7 Pages: 35816-35825, DOI: 10.1109/ACCESS.2019.2903157, Publicat: 2019 Factor Impact 2018: 4,018 - <b>Q1 - zona rosie</b>
6.	Alexandru Lavric, Valentin Popa "KeratoDetect: Keratoconus Detection Algorithm Using Convolutional Neural Networks," Computational Intelligence and Neuroscience, vol. 2019, Article ID 8162567, 9 pages, DOI: 10.1155/2019/8162567 Factor de impact 2019: 2,284 <b>Q2 - zona galbena</b> Publicat ianuarie 2019
7.	Lavric, A; Popa, V; Takahashi, H; Yousefi, S - Detecting Keratoconus From Corneal Imaging Data Using Machine Learning; IEEE ACCESS, Volume: 8 Pages: 149113-149121, DOI: 10.1109/ACCESS.2020.3016060, Published: 2020; Document Type:Article - <b>Q1 - zona rosie</b> - Impact factor 2019: 3,745
8.	Avatamanitei, Sebastian-Andrei; Cailean, Alin-Mihai; Done, Adrian; Dimian, Mihai; Popa, Valentin; Prelipceanu, Marius - Design and Intensive Experimental Evaluation of an Enhanced Visible Light Communication System for Automotive Applications, Sensors (Basel, Switzerland), Volume:20 Issue:11, DOI:10.3390/s20113190, Published: 2020 Jun 04, Document Type:Journal Article, Factor de impact 2019: 3,275 - <b>Q1 -zona rosie</b>
9.	Alin-Mihai Cailean, Mihai Dimian, Valentin Popa - Noise-Adaptive Visible Light Communications Receiver for Automotive Applications: A Step Toward Self-Awareness, Sensors 2020, 20, 3764; doi:10.3390/s20133764, Published: 2020, Document Type:Journal Article, Factor de impact 2019 3,275 - <b>Q1 -zona rosie</b>
10.	Alexandru Lavric, Adrian I. Petrariu, Eugen Coca, Valentin Popa - LoRa Traffic Generator Based on Software Defined Radio Technology for LoRa Modulation Orthogonality, Analysis: Empirical and Experimental Evaluation, Sensors 2020, 20, 4123; doi:10.3390/s20154123, Published: 2020, Document Type:Journal Article, Factor de impact 2019 3,275 - <b>Q1 -zona rosie</b>
11.	Petrariu, Adrian, I; Lavric, Alexandru; Coca, Eugen; Popa Valentin Hybrid Power Management System for LoRa Communication Using Renewable Energy, IEEE INTERNET OF THINGS JOURNAL, Volume: 8 Issue: 10 Pages: 8423-8436, DOI: 10.1109/JIOT.2020.3046324, Published: MAY 15 2021, WOS:000648206800048, <b>Q1 - Zona rosie</b> , Factor de impact 2020: 9,471
12.	Avatamanitei, Sebastian-Andrei; Beguni, Catalin; Cailean, Alin-Mihai; Dimian, M; Popa, V - Evaluation of Misalignment Effect in Vehicle-to-Vehicle Visible Light Communications: Experimental Demonstration of a 75 Meters Link, SENSORS, Volume: 21 Issue: 11, Article Number: 3577, DOI: 10.3390/s21113577, Published: JUN 2021, WOS:000660654300001 - <b>Q1 zona rosie</b> , Impact factor 2020: 3,576
13.	Design, Implementation and Experimental Investigation of a Pedestrian Street Crossing Assistance System Based on Visible Light Communications By: Cailean, AM; Beguni, C ; Avatamanitei, SA ; Dimian, M ; Popa, V , SENSORS Volume22, Issue15, Article Number5481, DOI10.3390/s22155481, PublishedAUG 2022, Indexed2022-08-22, WOS:000839741800001 - <b>Q2 -zona galbena</b> - Factor de impact 2021: 3,847

14.	In-Vehicle Visible Light Communications Data Transmission System Using Optical Fiber Distributed Light: Implementation and Experimental Evaluation, By: Beguni, C; Cailean, AM ; Avatamanitei, SA ; Zadobrischi, E ; Stoler, R ; Dimian, M; Popa, V ; Bechadergue, B; Chassagne, L , SENSORS - Volume22, Issue18, Article Number6738, DOI10.3390/s22186738, PublishedSEP 2022, Indexed2022-10-01, WOS:000858777100001 - Q2 -zona galbena - Factor de impact 2021: 3,847
15.	Internet of Things Concept in the Context of the COVID-19 Pandemic: A Multi-Sensor Application Design by Lavric, Alexandru; Petrariu, Adrian; Mutescu, Partemie-Marian; Coca, Eugen; Popa, Valentin - SENSORS, Volume22, Issue2, Article Number503, DOI10.3390/s22020503, PublishedJAN 2022, Indexed2022-02-10, Q2 -zona galbena - Factor de impact 2021: 3,847
16.	Massive Data Storage Solution for IoT Devices Using Blockchain Technologies - By:Maftai, AA (Maftai, Alexandru A.) [1] ; Lavric, A (Lavric, Alexandru) [1] ; Petrariu, AI (Petrariu, Adrian I.) [1] ; Popa, V (Popa, Valentin) [1], SENSORS, Volume23, Issue3, Article Number1570, DOI10.3390/s23031570, PublishedFEB 2023, Indexed2023-03-15

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17.	Cailean, A-M.; Cagneau, B.; Chassagne, L.; Dimian, M.; Popa, V., "Miller code usage in Visible Light Communications under the PHY I layer of the IEEE 802.15.7 standard," Communications (COMM), 2014 10th International Conference on , vol., no., pp.1,4, 29-31 May 2014, doi: 10.1109/ICComm.2014.6866699, (ISI Proceedings).
18.	Cailean, A.-M.; Cagneau, B.; Chassagne, L.; Popa, V.; Dimian, M., "Design and performance evaluation of a DSP visible light communication receiver," Communications and Vehicular Technology in the Benelux (SCVT), 2014 IEEE 21th Symposium on , vol.,no., pp.1,5, Delft – The Netherlands, 10 Nov. 2014, (ISI + IEEE Explore).
19.	Cailean, A.-M.; Cagneau, B.; Chassagne, L.; Popa, V.; Dimian, M., "A survey on the usage of DSRC and VLC in communication-based vehicle safety applications," Communications and Vehicular Technology in the Benelux (SCVT), 2014 IEEE 21th Symposium on , vol., no., pp.1,5, Delft – The Netherlands, 10 Nov. 2014, (ISI + IEEE Explore).
20.	Cailean, A-M.; Cagneau, B.; Chassagne, L.; Popa, V.; Dimian, M., "Evaluation of the noise effects on Visible Light Communications using Manchester and Miller coding," Development and Application Systems (DAS),2014 International Conference on , vol., no., pp.85,89, 15-17 May 2014,doi: 10.1109/DAAS.2014.6842433, (ISI + IEEE Explore).
21.	Lucian Nicolae COJOCARIU, Valentin POPA - "Design of a multi-input-multiple-output visible light communication system for transport infrastructure to vehicle communication" Development and Application Systems (DAS),2014 International Conference on , vol., no., pp., 15-17 May 2014,doi: 10.1109/DAAS.2014.6842433, (ISI + IEEE Explore).
22.	Aurel CHIRAP, Valentin POPA, Eugen COCA, Alin Dan POTORAC - A Study on Light Energy Harvesting from Indoor Environment: The autonomous sensor nodes - Development and Application Systems (DAS),2014 International Conference on , vol., no., pp., 15-17 May 2014,doi: 10.1109/DAAS.2014.6842433, (ISI + IEEE Explore).
23.	Lavric, Alexandru; Popa, Valentin; Sfichi, Stefan, Street Lighting Control System Based On Large-Scale WSN: A Step Towards A Smart City By: , 8th International Conference And Exposition On Electrical And Power Engineering (EPE) Location: Iasi, ROMANIA Date: OCT 16-18, 2014
24.	Petrariu, Adrian-Ioan; Popa, Valentin, The Role of Impedance Matching for Power Transfer Efficiency in HF RFID Systems, 2015 9TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE), Pages: 386-391, 2015 (ISI indexed WEB of Science, IEEE).
25.	Alexandru Lavric, Valentin Popa, „Performance Evaluation of WSN Topology Control Algorithms that can be used in the Smart City Concept”, Proceeding of 7th Edition Conference Electronics, Computers and Artificial Intelligence, 2015 ( ISI indexed WEB of Science, IEEE)
26.	Petrariu, Adrian-Ioan; Popa, Valentin, Metal Mountable Microstrip Patch UHF RFID Tag Antenna, 2015 International Symposium on Signals, Circuits and Systems (ISSCS) Location: Iasi, ROMANIA Date: JUL 09-10, 2015 (ISI indexed)
27.	Petrariu, Adrian-Ioan; Popa, Valentin, Low Profile Flexible Metal Mountable UHF RFID Tag Antenna, 2015 International Symposium on Signals, Circuits and Systems (ISSCS) Location: Iasi, ROMANIA Date: JUL 09-10, 2015 (ISI indexed)

28.	Aurel CHIRAP, Valentin POPA, Insertion loss measurement of a lowpass microwave filter manufactured on FR4 laminate, International Conference on Development and Application Systems - 13th Edition, Suceava, May 19-21, 2016 (ISI indexed).
29.	Alexandru Lavric, Valentin Popa, LoRa Wide-Area Networks from an Internet of Things Perspective, ECAI 2017 - International Conference – 9th Edition Electronics, Computers and Artificial Intelligence, 2017.
30.	Cailean, A-M.; Dimian, M; Popa, V.; Cagneau, B.; Chassagne, L.; Popa, V.; Digital Signal Processing Sensor for Automotive Visible Light Communications Applications, 2017 New Generation of CAS (NGCAS), 7-9 sep., Genova, Italia, DOI: 10.1109/NGCAS.2017.53
31.	Alexandru Lavric, Valentin Popa, A LoRaWAN: Long Range Wide Area Networks, Study, 11-th International Conference on Electromechanical and Power Systems (SIELMEN 2017), 11 October 2017 Iasi / 12-13 October 2017, Chisinau, 978-1-5386-1846-2/17/\$31.00 ©2017 IEEE
32.	Lavric, Alexandru; Popa, Valentin, Internet of Things and LoRa (TM) Low-Power Wide-Area Networks Challenges, Conference: 9th International Conference on Electronics, Computers and Artificial Intelligence (ECAI) Location: Targoviste, ROMANIA Date: JUN 29-JUL 01, 2017
33.	Alexandru Lavric, Valentin Popa, Cristina David, Cristian Costel Pavel - Keratoconus Detection Algorithm using Convolutional Neural Networks: Challenges 2019 11th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Editor IEEE
34.	Alexandru Lavric ; Adrian I. Petrariu ; Eugen Coca ; Valentin Popa - LoRaWAN Analysis from a High-Density Internet of Things Perspective, 2020 International Conference on Development and Application Systems (DAS), 21-23 May 2020, DOI: 10.1109/DAS49615.2020.9108921, Suceava, Romania
35.	Sebastian-Andrei Avătămăniței ; Alin-Mihai Căilean ; Cătălin Beguni ; Mihai Dimian ; Valentin Popa - Analysis Concerning the Usage of Visible Light Communications in Automotive Applications: Achievable Distances vs. Optical Noise, 2020 International Conference on Development and Application Systems (DAS), 21-23 May 2020, DOI: 10.1109/DAS49615.2020.9108964, Suceava, Romania

#### E. Brevete obținute în întreaga activitate

1	Popa Valentin, Siminiceanu Paul, Rusan Viorica, "Plăci fibrolemnoase", BREVET DE INVENTIE Nr. 95940 - 30.03.1993, Beneficiar: Combinatul de prelucrare a lemnului Suceava, 1993, Emis de Oficiul roman pentru inventii si marci.
2	Popa Valentin, Gutt Gheorghe, Procedeu de obtinere a pastilelor de contact electric pentru intreruptoarele de mica si medie putere, BREVET DE INVENTIE OSIM Nr. 130808 - 30.07.2018 Titular Universitatea „Stefan cel Mare” din Suceava, Emis de Oficiul roman pentru inventii si marci.
3	GUTT GHEORGHE, POPA VALENTIN, „Procedeu si sonda pentru studiul depunerilor galvanice”, Brevet de inventie nr. 129185/28.12.2018, Titular: UNIVERSITATEA STEFAN CEL MARE din SUCEAVA Emis de Oficiul roman pentru inventii si marci
4	Popa Valentin, Nitan Ilie, Milici Mariana-Rodica, Milici Laurentiu-Dan, Romaniuc Ilie, Ungureanu Constantin, Olariu Elena-Daniela, Tanta Ovidiu, Cernomazu Dorel, "Sistem de irigatie cu pompe electrochimice" Brevet de inventie nr. 131412/28.02.2019, Titular: UNIVERSITATEA STEFAN CEL MARE din SUCEAVA Emis de Oficiul roman pentru inventii si marci
5	Popa Valentin, Gutt Gheorghe, "Sistem optoelectronic pentru determinarea temperaturii metalului din plasma termică a cordoanelor de sudură" BREVET DE INVENTIE OSIM Nr. 129898/30.07.2019 Titular Universitatea „Stefan cel Mare” din Suceava, Emis de Oficiul roman pentru inventii si marci.
6	Popa Valentin, Romaniuc Ilie, Georgescu Stefan Daniel, Rata Mihai, Prodan Cristina, Milici Mariana-Rodica, Milici Dan-Laurentiu, Olariu Elena-Daniela, Cernomazu Dorel - "Pompa electrochimica" BREVET DE INVENTIE Nr. 129310/30.10.2019, Titular Universitatea „Stefan cel Mare” din Suceava, Emis de Oficiul roman pentru inventii si marci.
7	GUTT GHEORGHE, POPA VALENTIN, AMARIEI SONIA, "Sistem electronic pentru asistarea bicicletelor in mers" BREVET DE INVENTIE OSIM Nr. 131265/30.09.2021 Titular Universitatea „Stefan cel Mare” din Suceava, Emis de Oficiul roman pentru inventii si marci.

8	Cernusca Dumitru, Popa Valentin, Graur Adrian, Poienar Mihaela Milici Laurentiu Dan, Nitan Ilie - "MICROPOMPA ELECTROMECHANICA", BREVET DE INVENTIE OSIM Nr. 132833/29 APRILIE 2022 Titular Universitatea „Stefan cel Mare” din Suceava, Emis de Oficiul roman pentru inventii si marci.
9	Tanta Ovidiu Magdin, Paval Mihaela, Milici Dan Laurentiu, Grosu Oana Vasilica, Toader Vasile - Eusebiu, Atanasoae Pavel, Popa Valentin - ELECTRICAL NETWORK FAULT SIGNALLING DEVICE, Brevet de inventie EPO nr EP 4080228/20.12.2023, Titular Universitatea „Stefan cel Mare” din Suceava

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**Semnătura:**

