LISTA DE LUCRĂRI

Sârbu (Paljanos) Annamaria- lector universitar
Departamentul Comunicații, Tehnologia Informației si Apărare Cibernetică
Academia Forţelor Terestre "Nicolae Bălcescu" din Sibiu

A. Teza de doctorat

Sârbu Annamaria *Evaluarea expunerii umane ambientale și profesionale la surse de radiocomunicații*, Universitatea Tehnică, Cluj Napoca, 2016, Conducator: Prof. dr. ing. Călin MUNTEANU.

B. Cărţi și cursuri de specialitate publicate cu ISBN/ISSN:

1. Sârbu Annamaria, Miclăuș Simona, A preliminary study on the electromagnetic radiation emission of some military radio equipment under the viewpoint of human protection issue, Marinescu A.(coord.), Electromagnetic Compatibility/Electromagnetic Field. Research and Development in Romania, AGIR Press 2014, ISBN 978-973-720-521-6 – lucrare în capitolul 4 Radiation exposure
2. Sârbu Annamaria, Călin Munteanu, Evaluarea expunerii umane la câmpuri de radiofrecvență, Ed. UTPRESS, Cluj Napoca, 2019, ISBN 978-606-737-404-9
3. Sârbu Annamaria, Comunicații optoelectronice. Îndrumar de laborator, editura Academiei Forțelor Terestre "Nicolae Bălcescu", Sibiu, 2023, ISBN 978-973-153-544-9
4. Sârbu Annamaria, Semnale și sisteme. Note de curs, editura Academiei Forțelor Terestre "Nicolae Bălcescu", Sibiu, 2023, ISBN 978-973-153-547-0

C. Articole/studii in extenso, publicate în reviste din fluxul științific internațional:

1. Digulescu, A., **Sârbu, A.**, Stanescu, D., Nastasiu, D., Despina-Stoian, C., Ioana, C., & Mansour, A. (2023). Detection of OFDM modulations based on the characterization in the phase diagram domain. In Frontiers in Signal Processing (Vol. 3). Frontiers Media SA. https://doi.org/10.3389/frsip.2023.1197590s
2. Șorecău, Mirela, Emil Șorecău, **Annamaria Sârbu**, and Paul Bechet. 2023. "Real-Time Statistical Measurement of Wideband Signals Based on Software Defined Radio Technology" Electronics 12, no. 13: 2920. https://doi.org/10.3390/electronics12132920, revistă factor de impact 2.9 în 2022, cotată Q2
3. **Sârbu, A**.; Migliore, M.D.; Șorecău, E.; Șorecău, M.; Miclăuș, S.; Bechet, P. SDR-Enabled Multichannel Real-Time Measurement System for In Situ EMF Exposure Evaluation. Electronics 2022, 11, 2670. https://doi.org/10.3390/electronics11172670, revistă factor de impact 2.9 în 2022, cotată Q2
4. **Sârbu, A**.; Miclăuș, S.; Digulescu, A.; Bechet, P. Comparative Analysis of User Exposure to the Electromagnetic Radiation Emitted by the Fourth and Fifth Generations of Wi-Fi Communication Devices. Int. J. Environ. Res. Public Health 2020, 17, 8837. https://doi.org/10.3390/ijerph17238837, revistă factor de impact 3.39 în 2020, cotată Q1 în 2021
5. **Sârbu, A**., Bechet, A., Bălan, T., Robu, D., Bechet, P., & Miclăuș, S. (2019). Using CCDF statistics for characterizing the radiated power dynamics in the near field of a mobile phone operating in 3G+ and 4G+ communication standards. In Measurement (Vol. 134, pp. 874–887). Elsevier BV. https://doi.org/10.1016/j.measurement.2018.12.018, revistă factor de impact 3.36 în 2019, cotată Q1 în 2022

6. **Paljanos, A**., Munteanu, C., & Karpowicz, J. (2016). Measuring induced foot currents caused by radiofrequency electromagnetic fields exposure of manpack radio transceivers users. In Environmental Engineering and Management Journal (Vol. 15, Issue 12, pp. 2641–2649). OAIMDD - EcoZone Publishing House. https://doi.org/10.30638/eemj.2016.290, revistă factor impact 1.1 in 2022
7. **Paljanos, A**., Miclăuș, S., Bechet, P., & Munteanu, C. (2016). Assessment of mobile phone user exposure to UMTS and LTE signals: comparative near-field radiated power levels for various data and voice application services. In Journal of Electromagnetic Waves and Applications (Vol. 30, Issue 9, pp. 1101–1115). Informa UK Limited. https://doi.org/10.1080/09205071.2016.1167634, revistă factor impact 1.3 in 2022
8. **Annamaria Paljanos**, Calin Munteanu , Simona Miclaus, Correlating electric and magnetic field strength with induced foot currents – occupational exposure assessment of personnel operating professional radio equipment, U.P.B. Sci. Bull., Series C, Vol. 78, Iss. 4, 2016, revistă factor impact 0.3 in 2022
9. **Paljanos, A**., Miclaus, S., & Munteanu, C. (2015). Occupational exposure of personn el operating military radio equipment: measurements and simulation. In Electromagnetic Biology and Medicine (Vol. 34, Issue 3, pp. 221–227). Informa UK Limited. https://doi.org/10.3109/15368378.2015.1076446, revistă factor impact 1.7 in 2022
10. **Sârbu, A**., Bechet, P., & Giurgiu, T. (2021). Quantum Technologies Impact on Electromagnetic Spectrum Monitoring. In Scientific Bulletin (Vol. 26, Issue 2, pp. 195–204). Walter de Gruyter GmbH. https://doi.org/10.2478/bsaft-2021-0024
11. Miclaus, S., Deaconescu, D.-B., Vatamanu, D., Buda, A. M., **Sarbu, A**., & Pindaru, B. (2022). Peculiarities of the radiated field in the vicinity of a mobile terminal connected to 4G versus 5G networks during various applications usage. In AIMS Electronics and Electrical Engineering (Vol. 6, Issue 2, pp. 161–177). American Institute of Mathematical Sciences (AIMS). https://doi.org/10.3934/electreng.2022010
12. **Sârbu, A**., Sârbu, M., & Șumălan, C. (2018). Non Wi-Fi Devices Interference Testing in a 2.4 GHz Wi-Fi Home. In Land Forces Academy Review (Vol. 23, Issue 2, pp. 143–150). Walter de Gruyter GmbH. https://doi.org/10.2478/raft-2018-0017
13. **Paljanos, Annamaria** and Munteanu, Călin. "An Overview of Standards and Regulation Concerning Exposure to Radiofrequency Fields" Scientific Bulletin, vol.20, no.1, 2016, pp.145-150. https://doi.org/10.1515/bsaft-2015-0022

D. Publicații in extenso, apărute în lucrări ale conferințelor internaționale de specialitate:

1. **Sârbu A**., et al., "Computational and experimental characterization of EMF exposure at 3.5 GHz using electro-optical probes," 2022 IEEE International Symposium on Measurements & Networking (M&N), Padua, Italy, 2022, pp. 1-5, doi: 10.1109/MN55117.2022.9887777.
2. Annamaria Sârbu, Mirela Șorecău, Emil Șorecău, Paul Bechet, Frequency hopping signals tracking and sorting algorithm for military radio networks, 2023 International Symposium on Electromagnetic Compatibility – EMC Europe, Krakow, Poland, 2023, pp. 1-6
3. **A. Sârbu**, S. Miclăuș, E. Șorecău and P. Bechet, "Approaching user exposure assessment using broadband versus frequency-selective methods: IEEE 802.11ax mobile device emitted field," 2021 IEEE International Joint EMC/SI/PI and EMC Europe Symposium, Raleigh, NC, USA, 2021, pp. 243-248, doi: 10.1109/EMC/SI/PI/EMCEurope52599.2021.9559353.
4. C. Bechet, R. Helbet, S. Miclaus, I. Bouleanu, **A. Sarbu** and P. Bechet, "Assesing the Electric Field Strength in the Vicinity of Devices Emitting Signals in the IEEE 802.11ac Standard of Communication," 2019 International Symposium on Electromagnetic Compatibility - EMC EUROPE, Barcelona, Spain, 2019, pp. 1025-1029, doi: 10.1109/EMCEurope.2019.8871979.
5. H. Robert, B. Paul, M. Simona and **S. Annamaria**, "Real Time Broadband Electromagnetic Spectrum Monitoring System based on Software Defined Radio Technology," 2021 9th International Conference on Modern Power Systems (MPS), Cluj-Napoca, Romania, 2021, pp. 1-6, doi: 10.1109/MPS52805.2021.9492577.
6. **A. Sârbu**, P. Bechet, S. Miclăuș, R. Helbet and E. Șorecău, "Isotropic near field measurement system for new generation communication signals: Preliminary design and USRP calibration,"

2021 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, 2021, pp. 1-5, doi: 10.1109/ICATE49685.2021.9465022.

7. A. Buda and **A. Sârbu**, "Development of an Android application for user exposure assessment to electromagnetic fields emitted by an IEEE 802.11ax client," 2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), Bucharest, Romania, 2021, pp. 1-5, doi: 10.1109/BlackSeaCom52164.2021.9527788.
8. S. Miclaus, P. Bechet, R. Helbet, A. Miclaus and **A. Sarbu**, "Towards 5G Exposimetry: Instantaneous and Average Energy Density Accumulation Rate in Air near Wireless Devices Transmitting Data as Sub-Millisecond Frames," 2021 12th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2021, pp. 1-4, doi: 10.1109/ATEE52255.2021.9425087.
9. C. Bechet, R. Helbet, S. Miclaus, I. Bouleanu, **A. Sarbu** and P. Bechet, "Comparative WLAN exposure analysis: weighted channel power method versus CCDF method," 2019 8th International Conference on Modern Power Systems (MPS), Cluj-Napoca, Cluj, Romania, 2019, pp. 1-4, doi: 10.1109/MPS.2019.8759767.
10. A. C. Bechet, R. Helbet, I. Bouleanu, **A. Sarbu**, S. Miclaus and P. Bechet, "Low Cost Solution Based on Software Defined Radio for the RF Exposure Assessment: A Performance Analysis," 2019 11th International Symposium on Advanced Topics in Electrical Engineering (ATEE), Bucharest, Romania, 2019, pp. 1-4, doi: 10.1109/ATEE.2019.8724739.
11. B. Iulian, M. Simona, B. A. Cristian, B. Paul, **A. Sarbu** and H. Robert, "Assesment of the Near Field Level in the Vicinity of an Inverted V Antenna used for HF emission," 2018 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, 2018, pp. 1-4, doi: 10.1109/ICATE.2018.8551359.
12. L. Apreutesei, **A. Sârbu** et al., "Radiation reduction capabilities of some woven fabrics with metallic yarns attached to mobile phones emitting in 2G- and 3G- communication standards," 2016 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, Romania, 2016, pp. 387-391, doi: 10.1109/ICEPE.2016.7781368.
13. **A. Paljanos**, C. Munteanu and J. Karpowicz, "Methodological challenges in near-field exposure assessment of personnel operating military radio equipment using personal exposimeters: Possible difficulties in compliance analysis," 2016 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, Romania, 2016, pp. 287-293, doi: 10.1109/ICEPE.2016.7781349.
14. G. Mihai, A. M. Aron, V. Haralambie and **A. Paljanos**, "A study of mobile phone SAR levels modification in different experimental configurations under 2G and 3G communication standards," 2016 International Conference on Communications (COMM), Bucharest, Romania, 2016, pp. 491-494, doi: 10.1109/ICComm.2016.7528294.
15. **P. Annamaria**, M. Calin and M. Simona, "Near-field level emitted by professional radio communication devices: Preliminary measurements and simulations for an occupational exposure assessment approach," 2014 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, Romania, 2014, pp. 508-513, doi: 10.1109/ICEPE.2014.6969960.
16. **Paljanos A**, Miclaus S, , Bechet P., Association between specific absorption rate values of mobile phones and their electromagnetic near-field levels, 17th International Conference - The Knowledge-Based Organization: applied technical sciences and advanced military technologies, conference proceeding 3
17. Miclaus, S., **Sarbu, A**., & Bechet, P. (2021). Using Poincare Plots for Feature Extraction of the Dynamics of Electromagnetic Field Exposures when Using Different Protocols of Wi-Fi Communications. In 2021 8th international Conference on wireless communication and sensor networks. icWCSN 2021: ACM. https://doi.org/10.1145/3461717.3461723
18. **A. Sârbu**, A. Cotoi, D. Vatamanu, C. Neghină and S. Miclăuş, "Using infrared thermography for addressing the spatial variability of electromagnetic field in the proximity of emitting antennas," 2023 10th International Conference on Modern Power Systems (MPS), Cluj-Napoca, Romania, 2023, pp. 01-05, doi: 10.1109/MPS58874.2023.10187538.

19. **Sârbu, Annamaria**, Șorecău, Mirela, Șorecău, Emil and Bechet, Paul. "Machine-Learning-Based Classification of Frequency Hopping in Radio Networks for Communication Reconnaissance" International conference KNOWLEDGE-BASED ORGANIZATION, vol.29, no.3, 2023, pp.78-84. https://doi.org/10.2478/kbo-2023-0079
20. E. Sorecau, M. Sorecau, N. Craiu, **A. Sarbu** and P. Bechet, "Man-made Noise Measurement System for HF Band Based on SDR platforms - Design and Implementation," 2022 International Symposium on Electronics and Telecommunications (ISETC), Timisoara, Romania, 2022, pp. 1-4, doi: 10.1109/ISETC56213.2022.10010035.
21. E. Sorecau, M. Sorecau, N. Craiu, **A. Sarbu** and P. Bechet, "SNR Measurement of Ionospheric Channels for Availability Evaluation under NVIS Propagation," 2022 International Conference and Exposition on Electrical And Power Engineering (EPE), Iasi, Romania, 2022, pp. 275-279, doi: 10.1109/EPE56121.2022.9959804.
22. **A. Sârbu**, E. Şorecău, M. Şorecău, S. Miclăuş and P. Bechet, "Real-time isotropic measurement system based on Software Defined Radio," 2022 IEEE 9th Electronics System-Integration Technology Conference (ESTC), Sibiu, Romania, 2022, pp. 597-602, doi: 10.1109/ESTC55720.2022.9939503.
23. Șorecău, M., Șorecău, E**., Sârbu, A**., Helbet, R., & Bechet, P. (2022). Electromagnetic spectrum monitoring of LTE channels based on SDR portable sensor: Preliminary analysis. IOP Conference Series.Materials Science and Engineering, 1254(1), 012009. doi:https://doi.org/10.1088/1757-899X/1254/1/012009
24. **Sârbu, A**., Bechet, P., & Miclăuş, S. (2022). Limitations of using electro-optical probes for the measurement of the electromagnetic field emitted by the new generations of wireless communication devices. In IOP Conference Series: Materials Science and Engineering (Vol. 1254, Issue 1, p. 012022). IOP Publishing. https://doi.org/10.1088/1757-899x/1254/1/012022
25. Șorecău, E., Șorecău, M., Craiu, N., **Sârbu, A**., & Bechet, P. (2022). Design, implementation and preliminary testing of an automated system for the evaluation of ionospheric channels. In IOP Conference Series: Materials Science and Engineering (Vol. 1254, Issue 1, p. 012008). IOP Publishing. https://doi.org/10.1088/1757-899x/1254/1/012008
26. **Sârbu, A**., & Zaharia, A.-M. (2022). Practical Implementation of Reflectors for Wi-Fi Antennas. In International conference Knowledge-Based Organization (Vol. 28, Issue 3, pp. 86–92). Walter de Gruyter GmbH. https://doi.org/10.2478/kbo-2022-0091
27. Șorecău, Mirela, Șorecău, Emil, **Sârbu, Annamaria** and Bechet, Paul. "Web Solutions for Remote Control and Visualization of the Electromagnetic Spectrum Provided By Sensors Based on SDR" International conference Knowledge-Based Organization, vol.28, no.3, 2022, pp.100-105. https://doi.org/10.2478/kbo-2022-0093
28. Bouleanu, Iulian, Bechet, Paul and **Sârbu, Annamaria**. "A Survey on Network Planning and Traffic Engineering for Deployable Networks" International conference KNOWLEDGE-BASED ORGANIZATION, vol.26, no.3, 2020, pp.43-48. https://doi.org/10.2478/kbo-2020-0113
29. **Sârbu, Annamaria** and Neagoie, Dumitru. "Wi-Fi Jamming Using Software Defined Radio" International conference Knowledge-Based Organization, vol.26, no.3, 2020, pp.162-166. https://doi.org/10.2478/kbo-2020-0132
30. **Sârbu, Annamaria**, Miclăuş, Simona, Bechet, Paul and Bouleanu, Iulian. "Using Persistence Spectrum for Realistic Exposure Assessment to Time Varying Radiofrequency Signals" International conference Knowledge-Based Organization, vol.25, no.3, 2019, pp.57-62. https://doi.org/10.2478/kbo-2019-0118
31. **Sârbu, Annamaria**, Bechet, Paul and Miclăuș, Simona. "Mobile Phone User Exposure Assessment to UMTS and LTE Signals at Mobile Data Turn on by Applying an Original Method" International conference Knowledge-Based Organization, vol.23, no.3, 2017, pp.114-119. https://doi.org/10.1515/kbo-2017-0164
32. Miclăuş, Simona, Bechet, Paul, **Paljanos, Annamaria**, Aron, Angel Marian, Mihai, George, Pătru, Ion and Baltag, Octavian. "Shielding Effectiveness of Some Conductive Textiles and Their Capability to Reduce the Mobile Phones Radiation" International conference Knowledge-Based Organization, vol.22, no.3, 2016, pp.524-530. https://doi.org/10.1515/kbo-2016-0091

33. Andrei Cristian Bechet, **Annamaria Sarbu,** Robert Helbet, Simona Miclaus, Paul Bechet, Iulian Bouleanu, Wi-Fi Computer Communication in IEEE 802.11 Protocols N and AC: An Analysis of the User's Exposure using Real-Time Spectrum Analyzer Power Statistics Capability, AES 2019, LISBON - PORTUGAL, JULY 24 – 26, 2019

E. Proiecte de cercetare-dezvoltare-inovare obţinute prin competiţie pe bază de contract/grant în calitate de director/responsabil de proiect:

1. Proiect de cercetare de tip postdoc, *Contribuții privind evaluarea acurată a expunerii umane în câmpul apropiat al dispozitivelor de comunicatii wireless de ultimă generație (inclusiv 5G)*, competitia PN-III-P1-1.1-PD-2019, **director de proiect.**
2. Proiecte de mobilitate pentru cercetători, Mobilitate cercetător Annamaria Sarbu, PN-III-P1-1.1-MC-2019-0600

F. Proiecte de cercetare-dezvoltare-inovare obţinute prin competiţie pe bază de contract/grant în calitate de membru in echipa de cercetare:

1. Proiect de cercetare cuprins în Planul sectorial de cercetare-dezvoltare al MApN aferent perioadei 2022-2025*, Sistem inteligent de monitorizare a emisiilor radio,* membru in colectivul de cercetare al Academiei Fortelor Terestre, responsabil partener Bechet Paul.

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