

LISTA DE LUCRĂRI

BECHET PAUL

Departamentul Științe Tehnice

Academia Forțelor Terestre "Nicolae Bălcescu" din Sibiu

Teza de doctorat

T1. Bechet P., *Cercetări privind dezvoltarea fiabilă a structurilor de sintetizoare de frecvență pentru aplicații speciale*, Universitatea Tehnică, Cluj Napoca, 2001, Conducator: **Prof. dr. ing. Radu Ioan MUNTEANU**.

1.1. Cărți de specialitate publicate în edituri recunoscute (Ca).

- Ca1. Bechet P.**, Munteanu A.R., Bouleanu I., Munteanu M., Mitran R., *Compatibilitatea electromagnetica în medii de comunicații radio*, Editura Academiei Române, ISBN 978-973-27-1921-3, 2010 (315 pagini).
- Ca2.** Munteanu R., Mitran R., **Bechet P.**, *Metode numerice pentru detectia semnalelor radio*, Editura MediaMira, Cluj-Napoca, ISBN 978-973-713-309-0, 2013 (158 pagini).
- Ca3. Bechet P.**, *Sintetizoare de frecvență*, Editura Academiei Fortelor Terestre, Sibiu, 2001, ISBN 973-8088-61-5 (190 pagini).
- Ca4.** Fagadar E., **Bechet P.**, Bora M., David A., Popa M., *Resurse și capabilități ale sistemelor de comunicații militare*, Editura Academiei Fortelor Terestre, Sibiu, 2006, ISBN 973-7809-54-8 (92 pagini).

1.2. Cărți publicate în alte edituri, cu ISBN (Cb).

- Cb1. Bechet P.**, Mitran R., Bora M., Tufis M., *Comunicatii radio numerice*, Editura Pro Transilvania, Bucuresti, 2005, ISBN 973-715-044-9 (215 pagini).
- Cb2.** Tufis M., **Bechet P.**, *Propagarea radiatiei electromagnetice prin fibre optice*, Editura Pro Transilvania, Bucuresti, 2005, ISBN 978-973-715-102-5 (152 pagini).
- Cb3. Bechet P.**, David A., Mitran R., *Managementul resurselor în medii de comunicații standardizate*, Editura Arhip Art, Sibiu, 2007, ISBN 973-8962-13-7 (185 pagini).

1.3. Cărți/cursuri (manuale) publicate în edituri recunoscute (Cc).

- Cc1. Bechet P.**, *Transmisiuni radio-partea I*, Editura Academiei Forțelor Terestre, Sibiu, 1996 (102 pagini).
- Cc2.** Popa M., **Bechet P.**, Bădescu C., Bora M., *Comunicații militare*, Editura Academiei Academiei Fortelor Terestre, Sibiu, ISBN 973-8088, 2005 (245 pagini).
- Cc3.** Burlacu Ș., **Bechet P.**, *Curs de comunicații militare*, volumul II, Editura Academiei Academiei Fortelor Terestre, Sibiu, 2000 (310 pagini).
- Cc4.** Burlacu Ș., **Bechet P.**, Bădescu C., *Curs de comunicații militare*, volumul I, Editura Academiei Academiei Fortelor Terestre, Sibiu, 1999 (155 pagini).
- Cc5.** Popa M., Bădescu C., **Bechet P.**, *Bazele comunicațiilor*, Editura Academiei Fortelor Terestre, Sibiu, 1999 (245 pagini).

1.4. Îndrumare de laborator, culegeri de probleme, alte lucrari didactice (I)

- I1. Bechet P.**, Mitran R., Popa M., *Comunicații radio numerice – Aplicații*, Editura Academiei Fortelor Terestre, Sibiu, 2006, ISBN 973-7809-52-1 (78 pagini).
- I2. Bechet P.**, Goia Gh., Teodorescu M., Bora M., *Rețele și echipamente radio cu salt de frecvență în gama VHF*, Școala de Aplicație pentru Transmisiuni, Informatică și Război Electronic, Sibiu, 2004 (315 pagini).
- I3.** Bora M., **Bechet P.**, Bouleanu I., Goia Gh., Durdu D., Popescu I., *Rețeaua militară națională de comunicații - componenta strategică*, Școala de Aplicație pentru Transmisiuni, Informatică și Război Electronic, Sibiu, 2004 (155 pagini).

2.1. Articole in reviste cotate ISI (Ric)

- Ric1.** Miclaus S., **Bechet P.**, Stratakis D., *Exposure levels due to WLAN devices in indoor environments corrected by the time-amplitude distribution factor of the quasi-stochastic signals*, RADIATION PROTECTION DOSIMETRY

(2014) 162 (4): 536-543, first published online March 2, 2014 doi: 10.1093/rpd/ncu038, **cotat ISI, revista factor de impact 0,861 in 2013.**

Ric2. P. Bechet, S. Miclaus, A.C. Bechet, *An analysis of the dependence of the electromagnetic exposure level in indoor environment on traffic direction, instantaneous data rate and position of the devices in a WLAN network*, MEASUREMENT, doi:10.1016/j.measurement.2015.02.035, Volume 67, May 2015, Pages 34–41, **cotat ISI, revista factor de impact 1,526 in 2013.**

Ric3. S. Miclaus, P. Bechet, *Electromagnetic field strength in the proximity of WLAN devices during data and video files transmission*, Electronics Letters, Volume 50, Issue 19, 11 September 2014, p. 1397 – 1399, DOI: 10.1049/el.2014.0834, **cotat ISI, revista factor de impact 1,068 in 2013.**

Ric4. P. Bechet, S. Miclaus, A.C. Bechet, *Improving the Accuracy of Exposure Assessment to Stochastic-like Radiofrequency Signals*, IEEE TRANSACTIONS ON ELECTROMAGNETIC COMPATIBILITY, Volume: 54 Issue: 5 Pages: 1169-1177 DOI: 10.1109/TEMC.2012.2191290 Published: OCT 2012, **cotat ISI, revista factor de impact 1,327 in 2012.**

Ric5. P. Bechet, R. Mitran, and M. Munteanu, *A non-contact method based on multiple signal classification algorithm to reduce the measurement time for accurately heart rate detection*, REVIEW OF SCIENTIFIC INSTRUMENTS, 84, 084707 (2013), **cotat ISI, revista factor de impact 1,584 in 2013.**

Ric6. P. Bechet, S. Miclaus, *An improved procedure to accurately assess the variability of exposure to electromagnetic radiation emitted by GSM base station antennas*, MEASUREMENT SCIENCE & TECHNOLOGY Volume: 24 Issue: 1 Article Number: 015003 DOI: 10.1088/0957-0233/24/1/015003 Published: JAN 2013, **cotat ISI, revista factor de impact 1,352 in 2013.**

Ric7. S. Miclaus, P. Bechet, M. Gheorghevici, *Long-term exposure to mobile communication radiation: an analysis of time-variability of electric field level in GSM900 Downlink channels*, RADIATION PROTECTION DOSIMETRY Volume: 154 Issue: 2 Pages: 164-173 DOI: 10.1093/rpd/ncs169 Published: APR 2013, **cotat ISI, revista factor de impact 0,861 in 2013.**

Ric8. S. Miclaus, P. Bechet, C. Iftode, *The application of a channel-individualized method for assessing long-term, realistic exposure to radiofrequency radiation emitted by mobile communication base station antennas*, MEASUREMENT Volume: 46 Issue: 3 Pages: 1355-1362 DOI: 10.1016/j.measurement.2012.11.040 Published: APR 2013, **cotat ISI, revista factor de impact 1,526 in 2013.**

Ric9. Mitran R., Bechet P., *Measurement settings influence upon energy detection of TETRA signals*, Advances in Electrical and Computer Engineering, no. 3, 2010, pp. 92-95, ISSN 1582-7445, **cotat ISI, revista factor de impact 0,688 in 2010.**

Ric10. M. Paljanos, S. Miclaus, P. Bechet, C. Munteanu, *Assessment of mobile phone user exposure to UMTS and LTE signals: Comparative near field radiated power levels for various data and voice application services*, Journal Of Electromagnetic Waves And Applications, doi: 10.1080/09205071.2016.1167634, 2016, **cotat ISI, revista factor de impact 0,726 in 2015.**

Ric11. Miclaus S., Bechet P., Bouleanu I., Helbet R., *Radiofrequency field distribution assessment in indoor areas covered by Wireless Local Area Networks*, în curs de publicare, Advances in Electrical and Computer Engineering, vol. 9 (16), no.1, pp. 52-55, ISSN 1582-7445, 2009, **cotat ISI, revista factor de impact 0,509 in 2009.**

Ric12. Miclaus S., Bechet P., *Estimated and measured values of the radiofrequency radiation power density around cellular base stations*, Romanian Journal of Physics, vol.52, no. 3-4, pp. 429-440, Publishing House of the Romanian Academy, ISSN 1221-146X, Bucharest, 2007, **cotat ISI.**

2.2. Articole in volume manifestari stiintifice din străinătate indexate ISI Proceedings (Vi)

Vi1. Bechet P., Miclaus S., *Swept versus Real-Time Spectrum Analyzer ability to accurately assess electromagnetic exposure due to wireless communications signals in the environment: an analysis*, Progress in Electromagnetics Research Symposium (PIERS), Marrakesh, MOROCCO, 438-442, Published: 2011, **indexat ISI Proceedings.**

Vi2. Bechet P., Mitran R., Pop O., Bouleanu I., *Measuring Adjacent Channel Power for tactical networks*, The XVII International Conference on Electromagnetic Disturbances EMD 2007, ISBN 978-83-60200-37-7, Bialystok, 19-21 september 2007, 42-46, Poland, **indexat in ISI Proceedings.**

Vi3. Popa M., Bechet P., *SAR Images Processing using Gabor Filters and Neural Networks*, International Conference on Military Technologies, ICMT'07, pp. 464-471, Brno, Czech Republic, 2007, **indexat ISI Proceedings.**

Vi4. Bechet P., Lebu A., Ilies I., Bouleanu E., Babos A, *Effects-Based Knowledge Management in Changing Environments Meant to Improve the Information Domain of Communicating Agents*, PROCEEDINGS OF THE 10TH EUROPEAN CONFERENCE ON KNOWLEDGE MANAGEMENT, VOLS 1 AND 2 Pages: 75-82 Published: 2009, **indexat ISI Proceedings.**

Vi5. Barsan G., Bechet P., Barbu M., *A basic theoretical model for elastic-plastic stress analysis of the thick-walled tubes subjected to an internal pressure*, International Conference on Military Technologies, ICMT'07, pp. 65-70, Brno, Czech Republic, 2007, **indexat ISI Proceedings.**

- Vi6.** Pop O., Lungu S., Chindris G., **Bechet P.**, *Influence of Power Consumption Over the Input Current Harmonics Pollution for a Hali-Bridge Power Inverter*, 31st International Spring Seminar on Electronics Technology- Reliability and Life-Time Prediction, pp. 662-666, Budapest, Hungary, 2008, **indexat ISI Proceedings.**
- Vi7.** Neagu A. M., Palade T., **Bechet P.**, Hangan A., *Method to reduce the ACI level in GSM system*, The XVII International Conference on Electromagnetic Disturbances EMD 2007, ISBN 978-83-60200-37-7, Bialystok, 19-21 september 2007, Poland, **indexat in ISI Proceedings.**
- Vi8.** **Bechet P.**, Miclaus S., Popa M., Demeter S., Bora M., *Continuous and digital modulated radiofrequency fields propagation in planar biological models*, Proceedings of the 2003 International Symposium on Electromagnetic Compatibility, Istanbul, Turkey, vol.2, pp. 1241-1244, ISBN: 0-7803-7779-6, **indexat in ISI Proceedings.**
- Vi9.** **Bechet P.**, Mitran R., Miclaus S., *An analysis of frequency hopping radio networks*, The XVII International Conference on Electromagnetic Disturbances EMD 2007, ISBN 978-83-60200-37-7, Bialystok, 19-21 september 2007, Poland, **indexat in ISI Proceedings.**

2.3. Articole in volume manifestari stiintifice din țară indexate ISI Proceedings (Vni)

- Vni1.** S. Miclaus, **P. Bechet**, J. Karpowicz, *Experimental determination of human exposure in the near field of VHF sources: Correlations between incident field strength and currents induced in lower legs of persons*, Advanced Topics in Electrical Engineering (ATEE), 2015 9th International Symposium, 2015, **indexat ISI Proceedings.**
- Vni2.** S. Miclaus, **P. Bechet**, M. Stanic, C. Iftode, *Comparative Preliminary Ionospheric Forecasting In Romania With Data From The European Ionosonde Service Versus Data Extracted From The International Reference Ionosphere Model*, International conference KNOWLEDGE-BASED ORGANIZATION, vol. 21, Issue 3, 2015, **indexat ISI Proceedings.**
- Vni3.** Iftode C., Miclaus S., **Bechet P.**, Surducan E., *A TEM Cell Model Analysis for Radiofrequency Dosimetry Improvement by Computational Means*, 2011 7TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE) Book Series: International Symposium on Advanced Topics in Electrical Engineering Published: 2011, **indexat ISI Proceedings.**
- Vni4.** **Bechet P.**, Miclaus S., *Comparative Study of Electromagnetic Field Level Around WLAN Access Points by using Swept and Real-time Spectrum Analyzers*, Conf. Proceedings of the 16th International Conference "The knowledge based organization" (vol.3), Land Forces Academy Publishing House, Sibiu, 26-28 November 2010, ISSN 1843-6722, pp. 35-41, 2010, **indexat ISI Proceedings.**
- Vni5.** Miclaus S., **Bechet P.**, *Occupational Exposure to Electromagnetic Fields Assessment of Personnel Serving Military mobile Radio Communication Stations: A Preliminary Study*, Conf. Proceedings of the 15th International Conference "The knowledge based organization" (vol.6), Land Forces Academy Publishing House, Sibiu, 26-28 November 2009, ISSN 1843 – 6722, pp. 82-88, 2009, **indexat ISI Proceedings.**
- Vni6.** Macovei C. M., **Bechet P.**, *Aspects of the EGO identity development in the forming of the modern officer*, 6th International Seminar on the Quality Management in Higher Education Location: Tulcea, ROMANIA, Date: JUL 08-09, 2010, **indexat ISI Proceedings.**
- Vni7.** **P. Bechet**, S. Miclaus, D. Stratakis, A. Miaoudakis, *Electromagnetic field strength distribution in Wi-Fi signals covered areas: an experimental analysis of the variables that influence the exposure levels*, The 8th International Conference EPE 2014, Romania, lasi 16-18 october, 2014, **indexat ISI Proceedings.**
- Vni8.** S. Miclaus, **P. Bechet**, *Comparative characterization of the electromagnetic near field radiated by mobile phones in GSM and UMTS communication technologies*, The 8th International Conference EPE 2014, Romania, lasi 16-18 october, 2014, **indexat ISI Proceedings.**

2.4. Articole in volume manifestari stiintifice din străinătate indexate in BDI (Vib)

- Vib1.** **Paul Bechet**, Simona Miclaus, Antoniu Miclaus, Cornel Balint, *Experimental analysis of noise level and channels availability for high frequency OFDM data transmission in NVIS propagation conditions*, International Symposium on Electromagnetic Compatibility - EMC EUROPE, 2016 , pp. 844-849, 2016, **indexat IEEE Xplore.**
- Vib2.** Bormpantonaki Prokopios M., Dimitrios I. Stratakis, George N. Mastorakis, Christos N. Skeberis, Constandinos X. Mavromoustakis, **Paul Bechet**, *Exposure EMF measurements with spectrum analyzers using free and open source software*, 2016 International Conference on Telecommunications and Multimedia (TEMU), pp. 1-5. 2016.
- Vib3.** **Bechet P.**, Mitran R., Bouleanu I., Bora M., Popa M., *An analysis of the Adjacent Channel Interference for frequency Hopping Radio Systems*, WSEAS Proceedings Communications 2006, Atena, Grece, july 2006, ISBN 960-8457-37-8, 121-124, **indexat in Google Scholar.**
- Vib4.** Miclaus S., **Bechet P.**, Goiceanu C., Olariu O., Demeter S., *Practical issues concerning cellular base station emissions and population exposure in Romania*, The 3rd European Medical and Biological Engineering Conference EMBEC'05&IFMBE, ISSN 0363-6135, Prague, Czech Rep., Nov. 2005, IFMBE Proceedings CD-ROM ISBN 1727-1983, **indexat in Google Scholar.**

Vib5. Miclaus S., **Bechet P.**, Gheorghe V., Demeter S., *Microwave fields energy deposition in layered planar models of biological structures*, Proceedings of the 2nd International Workshop on Biological Effects of Electromagnetic Fields, Rhodes, Greece, 7-11 October, 2002, **indexat in Google Scholar**.

Vib6. Miclaus S., **Bechet P.**, Demeter S., Olariu O., *Modulation influence on RF fields power deposition inside biological objects: a dosimetric analysis on layered planar and spherical models*, The 11th International Congress of the International Radiation protection Association, 23 - 28 May, 2004, Madrid, Spain, ISBN 84 - 87078-05-2 (<http://www.irpa11.com/new/papers/papers.php?ses=8&ses1=f>), **indexat in Google Scholar**.

Vib7. Popa M., **Bechet P.**, Demeter S., *Automatic Detection of Target using Gabor filters and Neural Networks*, WSEAS Proceedings Control 2005, Venice, Italy, Vol. 4, december 2005, ISBN 960-8457-37-8, **indexat in Google Scholar**.

Vib8. **Bechet P.**, Mitran R., Bouleanu I., Bora M., Popa M., *Some aspects regarding the measurement of the Adjacent Channel Interference for frequency Hopping Radio Systems*, WSEAS Transactions on Signal Processing, July 2006, ISSN 1790-5022, **indexat in Google Scholar**.

2.5. Articole in reviste indexate în baze de date internaționale (Ris)

Ris1. **Bechet P.**, Miclaus S., *Swept versus Real-Time Spectrum Analyzer ability to accurately assess electromagnetic exposure due to wireless communications signals in the environment: an analysis*, PIERS Online 7.3 (2011): 276-280, **indexat in Google Scholar**.

Ris2. Gheorghevi M., **Bechet P.**, Miclaus S., Mitran R., *An automated electromagnetic field monitoring system based on spectrum analyzer*, Acta Electrotehnica, vol. 54, no.5, pp. 199-203, 2013, **indexat in Google Scholar**.

Ris3. Stanic M., Miclaus S., **Bechet P.**, *Near Field Level Assessment of Portable Radiocommunication Equipment For Occupational Exposure Purposes*, Acta Electrotehnica, vol. 54, no.5, pp. 459-464, 2013, **indexat in Google Scholar**.

Ris4. Miclaus S., **Bechet P.**, Olariu O., Demeter S., *Computation of radiofrequency field deposition in biological exposed models by an analytical method*, Romanian Journal of Biophysics, vol.15, no.1-4, pp. 47-54, ISSN: 1220-515X, Bucharest, 2005, **indexat in Google Scholar**.

Ris5. **Bechet P.**, Ilies I., Lebu A., Dinicu A., *A comprehensive approach to decision-making and interaction mechanisms that valorize relevant information*, Science&Military, Armed Forces Academy, Slovak Republic, no1/2010, ISSN 1336-8885, **indexat in ProQuest si Google Scholar**.

Ris6. Mitran R., Bogdan M., **Bechet P.**, *A Novel Algorithm for Frequency Hopping Detection*, International Journal of Research and Reviews in Computer Science (IJRRCS) 2.2 (2011), **indexat Google Scholar**.

Ris7. **Bechet P.**, *Adaptive organizational models in an informational environment*, Buletinul Stiintific al Academiei Fortelor Terestre, 2(36)/2013, ISSN 2247-8396, **indexat in ProQuest, EBSCO**.

Ris8. **Bechet P.**, *Reference source noise in frequency synthesizer*, Academy of Technical Science of Romania, Technical University of Cluj-Napoca, Acta Electrotehnica, ISSN 1224-2497, Volume 42, number 1, 2001, pp. 61-64, **indexat in Google Scholar**.

Ris9. Miclaus S., **Bechet P.**, *Experimental Dosimetric Characterization of a Transverse Electromagnetic Mode Cell for Liquid Samples Exposure*, Buletinul Stiintific al Academiei Fortelor Terestre, vol. XV, nr. 2 (30), pp.150-160, Sibiu, 2010, **indexat in ProQuest, EBSCO**.

Ris10. Mitran R., **Bechet P.**, *A comparative study regarding radio interception of frequency hopping signals*, Revista Academiei Fortelor Terestre Nr. 2 (58)/2010, ISSN 1582-6384, **indexat in ProQuest, EBSCO**.

Ris11. Mitran R., **P. Bechet**, I. Bouleanu, I. Ilies, *Capabilities of HCDR Resources*, Revista Academiei Fortelor Terestre 2(54)/2009, ISSN 1582-6384, **indexat in ProQuest, EBSCO**.

Ris12. **Bechet P.**, Mitran R., Ilies I., *Aspects on resource allocation within local radio networks*, Buletinul Stiintific al Academiei Fortelor Terestre, 2(26)/2008, ISSN 2247-8396, **indexat in ProQuest, EBSCO**.

Ris13. Bouleanu I., **Bechet P.**, Mitran R., Ilies I., *Electromagnetic compatibility for Joint Tactical radio Systems*, Buletinul Stiintific al Academiei Fortelor Terestre, 2(26)/2008, ISSN 2247-8396, **indexat in ProQuest, EBSCO**.

Ris14. Neagu A. M., Mitran R., Hangan A., **Bechet P.**, Bouleanu I., *Analysis on the Influence of the Multipath Propagation upon the Spectral Characteristics of GSM Signals*, MTA Review nr. 2/2007, pp. 91-100, ISSN 1843-3391, **indexat in Google Scholar**.

Ris15. **Bechet P.**, Demeter S., Mitran R., Miclaus S., *Some aspects about frequency hopping radio networks*, Scientific Bulletin of the Politehnica University of Timisoara, ISSN 1583-3380, Etc. 2004, 22-23 Oct., 2004, pp. 431-433, **Index Copernicus Journal Master List**.

2.6. Articole in volume manifestari stiintifice din țară indexate in BDI (Vin)

Vin1. Simona Miclaus, **Paul Bechet**, Jolanta Karpowicz, *Human Body Coupling to Near Field of VHF Antennas: An Indoor Expo-Dosimetric Survey*, EPE 2016, October 22-24, Iasi, Romania.

Vin2. Alina-Lacramioara Apreutesei, Antonela Curteza (RO), Annamaria Paljanos, Simona Miclaus, **Paul Bechet**, George Mihai, Angel Marian Aron, Octavian Baltag, *Radiation Reduction Capabilities of Some Woven Fabrics with*

Metallic Yarns Attached to Mobile Phones Emitting in 2G- and 3G- Communication Standards, EPE 2016, October 22-24, Iasi, Romania.

Vin3. Simona Miclaus, Jolanta Karpowicz, **Paul Bechet**, *Empirical Approach of Human Exposure to Near Field of a Biconical Dipole VHF Antenna: An Occupational Safety Perspective*, 2016 International Conference on Applied and Theoretical Electricity (ICATE).

Vin4. Simona Miclaus, **Paul Bechet**, Jolanta Karpowicz, *Limb currents due to electromagnetic influence in the VHF reactive near field: the role of field polarization, exposed persons posture and anthropometric parameters*, International Symposium on Fundamentals of Electrical Engineering, International Symposium on Fundamentals of Electrical Engineering 2016.

Vin5. Miclaus S, **Bechet P**, Paljanos A, Aron AM, Mihai G, Patru I, Baltag O, *Shielding Effectiveness of Some Conductive Textiles and Their Capability to Reduce the Mobile Phones Radiation*, International conference KNOWLEDGE-BASED ORGANIZATION 2016 Jun 1 (Vol. 22, No. 3, pp. 524-530).

Vin6. Iudean, D., R. A. Munteanu, **P. Bechet**, C. Muresan, and A. Cretu., *Reliability Indicators and a Failure Mode and Effect Analysis Calculation for a Holter Recorder*, In International Conference on Advancements of Medicine and Health Care through Technology; 5th–7th June 2014, Cluj-Napoca, Romania, pp. 113-118. Springer International Publishing, 2014, **indexat in Google Scholar**.

Vin7. Munteanu, M., **P. Bechet**, C. Rusu, D. D. Micu, R. A. Munteanu, R. Moga, and C. Amza, *Application of Virtual Instrumentation for Transmitting and Processing ECG Signals*, In International Conference on Advancements of Medicine and Health Care through Technology; 5th–7th June 2014, Cluj-Napoca, Romania, pp. 215-218. Springer International Publishing, 2014, **indexat in Google Scholar**.

2.7. Articole in alte reviste de specialitate de circulație internațională (Rio)

Rio1. Demeter S., **Bechet P.**, Popa M., Bora M., *On the improvement the acquisition time in frequency synthesizers*, Bolyai Janos Military Technical Faculty Review, Budapest, Hungary, 2003.

Rio2. Demeter S., **Bechet P.**, Miclaus S., *Computation of discrete modulated frequency radar fields power absorption in a planar eye model*, Bolyai Janos Military Technical Faculty Review, Budapest, Hungary, 2003.

2.8. Articole in reviste din țară recunoscute C.N.C.S.I.S. (Rns)

Rns1. **Bechet P.**, Mitran R., Bouleanu I., Neagu A. M., *Evaluating The Power Emitted by VHF Frequency Hopping Radio Equipment in the Adjacent Channels*, Revista Academiei Fortelor Terestre nr. 2 (50)/2008, ISSN 1582-6384.

Rns2. Mitran R., **Bechet P.**, Bouleanu I., *Estimating errors by simulating and measuring Frequency Hopping Signals with Spectrum Analyzer*, Revista Academiei Fortelor Terestre nr. 3 (51)/2008, ISSN 1582-6384.

Rns3. **Bechet P.**, Neagu A. M., Hangan A., Mitran R., *Electromagnetic Field Distribution Measurements for VHF Radio Equipment*, Revista Academiei Fortelor Terestre nr. 2 (46)/2007, ISSN 1582-6384.

Rns4. Munteanu R., **Bechet P.**, *Phase detector behaviour in locked loop synthesis analysis*, Revista Electrotehnica Electronica Automatica, vol. 50, nr. 1, 2002, ISSN 0376- 4745, pp. 11-13.

Rns5. Munteanu R., **Bechet P.**, Bora M., Miclăuș S., *The performances of digital modulation techniques used for radio channels in the presence of perturbations*, Revista Electrotehnica Electronica Automatica, vol. 51, nr. 1, 2003, ISSN 1582- 5175, pp. 9-12.

Rns6. Miclaus S., **Bechet P.**, Goiceanu C., Olariu O., Demeter S., *Practical issues concerning cellular base station emissions and population exposure in Romania*, Buletinul Stiintific al Academiei Fortelor Terestre, nr. 3 (21), 2005.

Rns7. **Bechet P.**, Munteanu R., *On the improvement of acquisition time, frequency resolution and spectral purity in frequency synthesis using hybrid PLL-DDS architectures*, Revista Electrotehnica Electronica Automatica, vol. 50, nr. 2, 2002, ISSN 0376- 4745, pp. 9-12.

Rns8. Miclaus S., Demeter S., **Bechet P.**, Bogdan O., Olariu O., *Modelarea absorbtiei campului de radiofrecventa in structuri biologice omogene si eterogene folosind metode analitice si numerice*, Buletinul Stiintific al Academiei Fortelor Terestre, nr. 2 (18), 2004.

2.9. Articole in alte reviste de specialitate de circulație națională (Rno)

Rno1. **Bechet P.**, Mitran R., Bora M., Pearsică M., *Organizarea rețelelor radio militare în gama VHF*, Revista Comunicațiilor și Informaticii, nr. 4, 2004, ISSN 1841-0758, pp. 28-32.

Rno2. Miclaus S., **Bechet P.**, Bora M., *Aspecte energetice ale impactului câmpurilor electromagnetice de radiofrecvență modulate asupra factorului uman*, Revista Comunicațiilor și Informaticii, nr. 3, 2004, ISSN 1841-0758, pp. 41-46.

Rno3. **Bechet P.**, *Simulink models for analyze reference source and voltage-controlled oscillator noise in PLL frequency synthesizer*, Acta Universitatis Cibiniensis, Vol XLVI, ISSN 1221-4949, Lucian Blaga University, Sibiu, 2001, pp. 5-10.

- Rno4.** Bogdan M., **Bechet P.**, *Measures light intensity with photocells*, Acta Universitatis Cibiniensis, Vol XLVI, ISSN 1221-4949, Lucian Blaga University, Sibiu, 2001, pp. 15-18.
- Rno5.** Bora M., **Bechet P.**, *Performanțele tehnicilor de modulație digitale utilizate pe canale radio în prezența perturbațiilor*, Revista Comunicațiilor și Informaticii, nr. 3, 2004, ISSN 1841-0758, pp. 46-52.
- Rno6.** **Bechet P.**, Teodorescu M., Bora M., *Asupra organizării liniilor radio cu salt de frecvență în gama VHF - Revista Comunicațiilor și Informaticii*, nr. 2, 2003, pp. 20-24.
- Rno7.** **Bechet P.**, *Analiza zgomotelor referinței în sinteza indirectă de frecvență*, Anuarul Academiei Forțelor Terestre, nr. 1 (2001-2002), ISSN 1583-7823, pp. 318-323, 2002.
- Rno8.** Miclaus S., **Bechet P.**, *Determinarea distribuției puterii de radiofrecvență absorbite într-un model biologic sferic*, Anuarul Academiei Forțelor Terestre, nr. 2 (2002-2003), Sibiu, 2003.
- Rno9.** Miclaus S., **Bechet P.**, Olariu O., Demeter S., *Computation of radiofrequency field deposition in exposed biological models by an analytical method*, Abstracts of the 8th Romanian Biophysics Conference, Revista Medico-Chirurgicala, vol. 109, supl. Nr.1, mai 2005, pp. 130-131, ISSN 0048-7848, Iasi, 26-28 May 2005.
- Rno10.** Miclaus S., **Bechet P.**, Demeter S., *Radiofrequency dosimetry by numerical methods*, Abstracts of the 8th Romanian Biophysics Conference, Revista Medico-Chirurgicala, vol. 109, supl. Nr.1, mai 2005, pp. 131-132, ISSN 0048-7848, Iasi, 26-28 May 2005.
- Rno11.** Bora M., **Bechet P.**, *Testarea interoperabilității sistemelor de transmisie ale națiunilor participante la exercițiul Combined Endeavor 2003*, Revista Comunicațiilor și Informaticii, nr. 1, 2003, ISSN 1841-0758, pp. 42-47.
- Rno12.** **Bechet P.**, Hangan A., Neagu A. M., *Masuratori asupra distribuției campului electromagnetic pentru echipamente în gama VHF*, Revista Comunicațiilor și Informaticii, nr. 7 (2007), ISSN 1841-0758, pp. 33-38.

2.10. Articole in volume manifestari stiintifice recunoscute (cu ISSN sau ISBN) din străinătate (Vis)

- Vis1.** Miclaus S., **Bechet P.**, Dimitrios Stratakis, *Realistic exposure levels due to WLAN signals indoor environments: experimental outcomes from currently applied methodologies*, 5th International Conference on Electromagnetic Fields, Health and Environment EHE 2014, 24-25 april 2014, Porto, Portugal.
- Vis2.** **Bechet P.**, Miclaus S., *Critical settings of swept spectrum analyzers for improved accuracy measurement of radiofrequency field level of IEEE 802.11 b/g signals*, Le deuxième colloque francophone PLUridisciplinaire sur les Matériaux, l'Environnement et l'Electronique (PLUMEE 2011), Limoges, France, 30 Mai-1 Juin, 2011.
- Vis3.** **Bechet P.**, Miclaus S., *Improvement of measurement accuracy in case of using swept spectrum analyzers for RF field exposure assessment due to stochastic-like signals*, Proceedings, 10th Intl. EBFA Congress, ISBN 978-88-8286-231-2, Rome, Italy, 21-24 Febr., 2011.
- Vis4.** **Bechet P.**, Miclaus S., *Swept versus Real-Time Spectrum Analyzer Ability to Accurately Assess Electromagnetic Exposure due to Wireless Communications Signals in the Environment: An Analysis*, Proceedings of 29th Progress in Electromagnetics Research Symposium (PIERS), Marrakesh, Morocco, 20-23 March, 2011.
- Vis5.** **Bechet P.**, Miclaus S., *Improvement of measurement accuracy in case of using swept spectrum analyzers for RF field exposure assessment due to stochastic-like signals*, 10th Intl. EBFA Congress, Rome, Italy, 21-24 Febr., 2011.
- Vis6.** Miclaus S., **Bechet P.**, Iftode C., *Near Field Radiofrequency Measurements for Occupational Exposure Assessment by Personal Dosimeter: Possibilities and Limitations*, Proceedings of the 6th International Workshop on Biological Effects of Electromagnetic Fields, Bodrum, Turcia, 10-14 Oct. 2010.
- Vis7.** Miclaus S., **Bechet P.**, Iftode C., *Measurements precision analysis of radiofrequency field exposure levels in case of intercomparison between different frequency selective instrumentation*, 15 Colloque International et exposition sur la Compatibilité Electromagnetique, Limoges, Franta, 7-9 April 2010.
- Vis8.** **Bechet P.**, Miclaus S., Bouleanu I., Mitran R., Helbet R., *Comparative study regarding the accuracy of the measurement performed with frequency selective systems in the case of SDR emitting sources*, EUROEM 2008 Symposium, Abstract book, p. 359, Lausanne, Switzerland, 21-28 July, 2008.
- Vis9.** Miclaus S., **Bechet P.**, *Radiofrequency field level measurements for human exposure assessment by two frequency-selective systems: an analysis*, Proceedings - International Workshop: Implementation of the Model Legislation (WHO) in the field of EMF human exposure. Quality assurance in measurements, Balchik, Bulgaria, 14-17 oct. 2007.
- Vis10.** Miclaus S., **Bechet P.**, *Intercomparison measurements of environmental radiofrequency signal levels with respect to human exposure*, 8th International Congress of the European Bioelectromagnetics Association (EBEA), Bordeaux, France, 10-13 April 2007.
- Vis11.** Miclaus S., **Bechet P.**, *Aspects regarding radiofrequency radiation exposure of population in Romania*, Proceedings of the 4th Internat. Workshop Biological Effects of Electromagnetic Fields, pp. 1077-1086, ISBN 960-233-171-2, Creta, Greece, 16-20 Oct. 2006.
- Vis12.** Popa M., **Bechet P.**, *SAR Images Processing using Gabor Filters and Neural Networks*, ICMT 2007, Universitatea de Aparare Brno, Facultatea de Tehnologii Militare, 2007, pp. 464-471, ISBN 978-80-7231-238-2.

Vis13. Bechet P., Bora M., *Simulation of digital radio relay systems*, The 29th Annual Congress of the American Romanian Academy of Arts and Sciences, Proceedings of the 29th ARA Congress, ISBN 973-640-035-2, University of Applied Sciences, Bochum, Germany, September 7-12, 2004, pp. 421-425.

Vis14. Miclaus S., Bechet P., Demeter S., *Radiofrequency power deposition in the spherical model of a biological object exposed to a broadband electromagnetic pulse*, Proceedings of the 3rd Internat. Workshop Biological Effects of Electromagnetic Fields, vol. II, pp. 1092-1097, ISBN 960-233-152-6, Kipriotis Village Resort, Kos, Greece, 4-8 Oct. 2004.

Vis15. Miclaus S., Bechet P., Demeter S., *Use of homogenous lossy dielectric sphere model for comparison of continous and digital modulated radiofrequency field deposition inside biological objects*, Proceedings of the 6ST EBEA Congress, Budapest, Hungary, 13-15 November, 2003.

Vis16. Miclaus S., Bechet P., Demeter S., *Features of radiofrequency field distribution in biological objects by computations planar and spherical models*, The 1ST International Conference „New Challenges in the field of military sciences 2003, Miklos Zrinyi National Defense University, Bolyai Janos Military Technical Faculty, 28-29th October, 2003, Budapest, Hungary (<http://www.bjkmf.hu/tudelet/konf/26.html>).

2.11. Articole in volume manifestari stiintifice nationale (Vn)

Vn1 Miclaus S., **Bechet P.,** Demeter S., *Radiofrequency dosimetry by numerical methods*, Abstracts of the 8th Romanian Biophysics Conference, vol. 109, supl. Nr. 1, mai 2005, pp. 131-132, ISSN 0048-7848, Iasi, 26-28 mai 2005.

Vn2 Miclaus S., **Bechet P.,** Bouleanu I., *Radiofrequency Field Level Assessment Around WLAN Devices*, The 2nd Workshop Bioelectromagnetic Compatibility: Methods of Characterization and Shielding Materials, Curtea de Arges, Romania, 22 may 2008.

Vn3 Miclaus S., **Bechet P.,** Demeter S., *Aplicarea metodei momentelor in vederea determinarii ratei specifice de absorbtie in modele biologice expuse in campuri electromagnetice de radiofrecventa*, A VIII-a sesiune de comunicari stiintifice Eficienta si calitate in invatamantul superior, ISBN 973-8088-87-9, Academia Fortelor Terestre, Sibiu, 11 iunie 2004, pp 43-50.

Vn4 Bechet P., Mitran R., *Aspecte cu privire la retelele radio militare in gama VHF*, A VIII-a sesiune de comunicari stiintifice Eficienta si calitate in invatamantul superior, ISBN 973-8088-87-9, Academia Fortelor Terestre, Sibiu, 11 iunie 2004, pp. 112-120.

Vn5 Miclaus S., **Bechet P.,** Surducan E., Sajin Gh., Creanga D., Badic M., *Contributii la studiul interactiei bio-electromagnetice in domeniul spectral radiofrecvente/microunde, in urma derularii unui proiect consortial din Programul CEEX*, in perioada 2005-2007, Workshopul Expunerea umana la microunde: aplicatii in medicina si ecologie, Univ. Politehnica din Bucuresti, 10 noiembrie 2006.

Vn6 Miclaus S., **Bechet P.,** Olariu O., Corleanca D., *Measurements of radiofrequency sources emissions in the environment in connection to human health: methodological issues*, The 3rd Workshop of Electromagnetic compatibility, CEM 2006, ISBN (10) 973-718-529-3, ISBN (13) 978-973-718-529-7, PP. 62-67, Iasi, 20-21 sept. 2006.

2.12. Proiecte de cercetare-dezvoltare-inovare obtinute prin competitie pe baza de contract/grant in calitate de director/responsabil de proiect (Pnd)

Pnd1. Proiect de cercetare, Program Parteneriate in domenii prioritare, *Predicții de propagare ionosferica și comunicatii de banda larga folosind senzori SDR in gama HF pentru suportul informational in situatii de urgenta pe teritoriul Romaniei*, competitia PCCA 2013, **director de proiect.**

Pnd2. Proiect de cercetare, Programul 4 – Parteneriate in domenii prioritare, *Aplicatii inteligente ale senzorilor SAR in domeniul cercetării electronice (tehniciilor INT)*, competitie 2008, **responsabil de proiect**, partener AFT.

Pnd3. Proiect de cercetare exploratorie, Program Idei, *Cercetări cu privire la optimizarea capabilităților sistemelor radio tactice integrate în medii de comunicații standardizate*, competiție 2007, **director de proiect.**

Pnd4. Grant CNCIS tip A, *Studiu privind interoperabilitatea sistemelor radio militare*, competiție 2004, **director de proiect.**

Pnd5. Proiect Cercetare de Excelenta, CERES, Contractul de Finantare Nr. CEEX 05-D11-54-P2/10.10.2005, *Cercetari cu privire la interactia bio-electromagnetica si impactul biologic al expunerii umane in campuri electromagnetice de radiofrecventa si microunde*, competitie 2005, **responsabil de proiect** partener Centrul de Pregatire pentru Comunicatii si Informatica.

Pnd6. Proiect Cercetare de Excelenta, CERES, *Interactia microundelor cu sisteme moleculare si bio-moleculare*, competitie 2005, **responsabil de proiect** partener Centrul de Pregatire pentru Comunicatii si Informatica.

Pnd7. Proiect Cercetare de Excelenta, SECURITATE, *Elaborarea unui instrument decizional destinat optimizării capabilităților pentru acțiuni specifice de nivel tactic din domeniul apărării și siguranței naționale*, **responsabil de proiect** partener Centrul de Pregatire pentru Comunicatii si Informatica.

2.13. Proiecte de cercetare-dezvoltare-inovare obținute prin competiție pe bază de contract/grant în calitate de membru în echipa de cercetare (Pnm)

Pnm1. Grant ANSTI tip C, *Contribuții la studiul sintezei de frecvență în aplicații*, contract nr. 7062/05.11.2001, **membru în colectivul de cercetare**, director de proiect: Demeter S.

Pnm2. Grant ANSTI tip T, *Studiul absorției de energie electromagnetică în modele de sisteme vii expuse în câmpuri de microunde modulate din instalațiile radar*, contract nr. 7062/05.11.2001, **membru în colectivul de cercetare**, director de proiect: Miclaus S.

Pnm3. Proiect de cercetare, Programul Capacitati, *Laborator de analize chimice si instrumentale in domeniul detectiei si decontaminarii RBC*, competitie 2008, **membru în colectivul de cercetare**, director de proiect: Mosteanu D.

Pnm4. Grant CNCSIS tip A, *Aplicarea unor metode computaționale pentru determinări dozimetrice ale câmpului de radiofrecvență absorbit în modele biologice expuse*, competiție 2004, **membru în colectivul de cercetare**, director de proiect: Demeter S.

Pnm5. Proiect de cercetare, Modul III CEEEX, *Studii pentru dezvoltarea activitatilor de cercetare in domeniul inregistrarii SAR pentru GMES (SARFORGMES)*, competitie 2006, contract A 46801/12.09.2006, **membru în colectivul de cercetare**, director de proiect: Popa M.

Pnm6. Grant CNCSIS tip A, *Contributii privind modelarea procesarii cognitive a imaginilor in aplicatii militare*, competitie 2004, contract 32950/22.06.2004, **membru în colectivul de cercetare**, director de proiect: Popa M.

Decembrie 2016

Prof. dr. ing. Paul BECHET

