

## Publications (selection)

### Books (selection)

- Valeriu David, *Măsurări și Instrumentație. Aplicații în biomedicină și ecologie. (Measurements and Instrumentation. Applications in biomedicine and ecology)*, Editura Politehniun, Iasi, 2022.  
Vol. 1. *Măsurarea mărimilor electrice și neelectrice (Measurement of electrical and non-electrical quantities)*  
Vol. 2. *Estimarea unor parametri biomedicali și de mediu (Estimation of biomedical and environmental parameters)*  
Vol. 3. *Caracterizarea și controlul ambientului electromagnetic (Characterization and control of the electromagnetic environment)*
- Cristian-Győző Haba, Liviu Breniuc, Valeriu David, Chapter 9. “Developing Embedded Platforms for Ambient Assisted Living”, in “Ambient Assisted Living and Enhanced Living Environments. Principles, Technologies and Control”, Edited by Ciprian Dobre, Constandinos X. Mavromoustakis, Nuno M. Garcia, Rossitza I. Goleva, George Mastorakis, Elsevier, 2016
- Valeriu David, Alexandru Sălceanu, Radu-George Ciorap, Chapter “Acquisition and Analysis of Biomedical Signals in Case of Peoples Exposed to Electromagnetic Fields”, pp. 269-295, in *Pervasive and Mobile Sensing and Computing for Healthcare. Technological and Social Issues*, Editors: Subhas Chandra Mukhopadhyay, Octavian A. Postolache, Springer-Verlag Berlin Heidelberg, 2013
- Valeriu David., Mihai Cretu, 2006, *Măsurarea intensitatii campului electromagnetic. Teorie și aplicații (Measurement of electromagnetic fields. Theory and applications)*, Casa de Editura Venus, Iasi, 2006
- Valeriu David, Alexandru Salceanu, Eugen Cretu, *Măsurări în biomedicină și ecologie. Aplicații, (Measurement in ecology and biomedicine. Applications)*, Editura Setis, Iași, 2005
- Adascalitei, Ball, Cretu, David, Lever, Montanary, Paede, Salceanu, *Electromagnetic Compatibility. Theory Manual*, Warwick University Press, United Kingdom, 2002
- Adascalitei, Ball, Cretu, David, Lever, Montanary, Paede, Salceanu, *Electromagnetic Compatibility. Practical Manual*, Warwick University Press, United Kingdom, 2002
- Valeriu David, Eugen Crețu, *Măsurări în biomedicină și ecologie (Measurement in ecology and biomedicine)*, Editura „Gh. Asachi”, Iasi, 1999
- Mihai Antoniu, Octavian Baltag, Valeriu David, *Măsurări electronice, vol 3, Măsurări la joasă și la înaltă frecvență, (Electronic measurements, vol 3, Low frequency and high frequency measurements)*, Editura Satya, Iasi, 1999 (V. David, Chapter 24)

### Articles in Journals and Conferences (selection)

- Alexandru-Constantin Podaru and Valeriu David, *On the Heart rate variability and Pulse rate variability evaluations based on electrocardiographic and photoplethysmographic signals*, 12th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2021, pp. 1-6.
- Alexandru-Constantin Podaru, Valeriu David and Mădălina-Elena Datcu, *Estimation of Respiratory Frequency and Heart Rate Variability Parameters in the Case of Respiratory Exercises*, Buletinul Institutului Politehnic din Iași, Volumul 66 (70), Numărul 3, 2020 Secția Electrotehnică. Energetică. Electronică, pp. 9 – 24
- Valeriu David, Ionel Pavel, Eduard Lunca, *A Method for Estimating the Magnetic Fields Generated by the Overhead Power Lines*, EPE 2020, Iasi, 22-23 October, 2020
- Alexandru-Constantin Podaru, Valeriu David, *Blood pressure estimation based on synchronous ECG and PPG recording*, EPE 2020, Iasi, 22-23 October, 2020.
- Alexandru-Constantin Podaru, Valeriu David, *A simple method for determining the HRV parameters*, EPE 2020, Iasi, 22-23 October, 2020.
- Liviu Breniuc, Cristian Győző Haba, Valeriu David, *Embedded platform for developing medical applications*, Rev. Roum. Sci. Techn.– Électrotechn. et Énerg., Vol. 65, 1-2, pp. 123–129, Bucarest, 2020
- Ovidiu Bejenaru, Eduard Lunca, Valeriu David, *Simulation and Measurement of the Radiofrequency*

*Electromagnetic Field Generated by a LTE Base Station*, 2019 International Conference on Electromechanical and Energy Systems (SIELMEN), Craiova, Chisinau, pp. 9-11, 2019

- Ionel Pavel, Valeriu David, CosteDonose I, *A measurement system for the automatic survey of the low frequency magnetic field*, 10<sup>th</sup> International Conference and Expositions on Electrical And Power Engineering, EPE 2018, Iași, România, pages: 568-571, 2018
- Ionel Pavel, Valeriu David, Alexandru-Constantin Podaru, *A Survey of the Magnetic Field in a MRI Area*, 10<sup>th</sup> International Conference and Expositions on Electrical And Power Engineering, EPE 2018; Iasi; Romania; pages: 572-577, 2018
- Eduard Lunca, Valeriu David, *Wideband Three-axis Magnetic Field Sensor*, 10<sup>th</sup> International Conference and Expositions on Electrical And Power Engineering, EPE 2018; Iasi; Romania; pages: 693-696, ISBN: 2018
- Alexandru-Constantin Podaru, Valeriu David, Oana Maria Asiminicesei, *Determination and Comparison of Heart Rate Variability and Pulse Rate Variability*, 10<sup>th</sup> International Conference and Expositions on Electrical And Power Engineering, EPE 2018; Iasi; România, pages: 551-554, 2018
- Ionel Pavel, Valeriu David, Silviu Ursache, *On a Survey of the Magnetic Field in a Commercial Area*, 22nd IMEKO TC4 International Symposium & 20th International Workshop on ADC Modeling and Testing, Iasi, Romania, pages: 300-304, 2017
- Alexandru-Constantin Podaru, Valeriu David, Oana Neacsu, *Comparison between Electrocardiographic and Photoplethysmographic Peaks Intervals*, 22nd IMEKO TC4 International Symposium & 20th International Workshop on ADC Modeling and Testing, Iasi, Romania, 2017
- Ovidiu Bejenaru, Eduard Lunca, Valeriu David, *Characterization of the Electromagnetic Interferences due to a Public Lighting System*, 22nd IMEKO TC4 International Symposium & 20th International Workshop on ADC Modeling and Testing, Iasi, Romania, 2017
- Ionuț Nica, Valeriu David, Ionel Pavel, Andrei Sălceanu, *Automatic long term survey of magnetic fields in residential areas. Instrumentation and measurements*, Environmental Engineering and Management Journal, vol.15, no. 12 , pp 2631-2640, 2016
- Ionel Pavel, Valeriu David, *On the Survey of the Magnetic Fields in Power Distribution Substations*, EPE 2016, pp 413-417, 2016
- V. Dafinescu, V. David, D Andritoi, E. Lunca, E. N. Dragoi, *Electromagnetic pollution of the hospital environment due to new generation mobile phones*, Environmental Engineering and Management Journal, vol.14, no.1, pp 73-78, 2015
- D. Andritoi, V. David, R. Ciorap, *Dynamics analysis of heart rate during Magneto-Therapy session*, EPE 2014, pp. 514 – 517, 2014
- M. Branzila, V. David, *Real time electrocardiogram signal processing for R peak detection using Wigner and wavelet functions*, Environmental Engineering and Management Journal, vol.12, no.6, pp 1207-1214, 2013
- G. Ababei, V.David, V.Dafinescu, I. Nica, A. Pica, H. Chiriac, *Omni-Directional Selective Shielding Multilayered Material for High Frequency Radiation*, IEEE Transactions on Magnetics , vol.48, no.11, pp 4309-4312, 2012
- V. David, I. Nica, *A measurement system for an automatic survey of low frequency magnetic and electric fields*, Review of Scientific Instruments, vol.83, no.10, 105102, 2012
- G, Ababei, H.Chiriac, V.David, V. Dafinescu, I. Nica, *Omni-directional selective shielding material based on amorphous glass coated microwires*, Review of Scientific Instruments, vol.83, no.1, 014701, 2012
- E. Lunca, V. David, A. Salceanu, I. Cretescu, *Assessing the human exposure due to wireless local area networks in office environments*, Environmental Engineering and Management Journal, vol.11, no.2, pp 385-391, 2012
- I. Nica, V. David, R. C. Lazarescu, M. Ciorap, *Estimation Of Human Exposure In Some Electromagnetic Environments*, EPE 2012, pp. 541-543, 2012
- M. C. Rau, V. David, O, Baltag, *Study on the Electromagnetic Environment in a Space Destined to*

- C. Lazarescu, V. David, I. Nica, *Spherical model of the human head exposed to electromagnetic field*, Environmental Engineering and Management Journal, vol.10, no.4, pp 545-551, 2011
- N. Adochiei, V. David, I. Tudosa, *Methods of electromagnetic interference reduction in electrocardiographic signal acquisition*, Environmental Engineering and Management Journal, vol.10, no.4, pp 553-559, 2011
- I. Nica, V. David, V. Dafinescu, A. Salceanu, C. G. Haba, *Characterization of electromagnetic radiation from a patient monitor*, Environmental Engineering and Management Journal, vol.10, no.4, pp 561-566, 2011
- M. Branzila, V. David, *Wireless Intelligent Systems for Biosignals Monitoring*, 3<sup>rd</sup> International Conference on E-Health and Bioengineering (EHB 2011), pp. 93-96, 2011
- V. David, I. Nica, A. Salceanu, M. Paval, V. Dafinescu, *Measuring of magnetic Fields of the Electric Installations*, Energetica, Vol.58, Nr 5, pp. 230-237, 2010
- V. David, I. Nica, A. Salceanu, L. Breniuc, *Monitoring of environmental low frequency magnetic fields*, Environmental Engineering and Management Journal, vol.8, no.5, pp 1253-1261, 2009
- V. David, I. Nica, A. Salceanu, *Survey of electromagnetic environment due to mobile communications*, Environmental Engineering and Management Journal, vol.8, no.2, pp 341-345, 2009
- V. David, I. Nica, A. Salceanu, *Electromagnetic Absorbers Based on Chiral Honeycomb Slab*, International Symposium on Electromagnetic Compatibility Location: Athens, Greece (EMC EUROPE 2009), pp. 91-94, 2009
- V. David, I. Nica, R. Ciobanu, A. Salceanu, *The numerical simulations of the electromagnetic shield based on chiral honeycomb slab*, 16<sup>th</sup> IMEKO TC4 Symposium Exploring New Frontiers of Instrumentation and Methods for Electrical and Electronic Measurements, Florence, Italy, pp. 807-812, 2008
- V. David, E. Vremeră, A. Sălceanu, I. Nica, O. Baltag, *On the Characterization of Electromagnetic Shielding Effectiveness of Materials*, 15<sup>th</sup> IMEKO TC 4 International Symposium on Novelties in Electrical Measurements and Instrumentation; Vol. I, Iasi, Romania, pp. 73-78, 2007
- V. David, R. Ciobanu, A. Sălceanu, *On the characterization of the electromagnetic field propagation through buildings walls*, Buletinul Institutului Politehnic Iași, Tomul LII (LVI), FASC. 5B, pp. 820 – 825, 2006
- V. David, M. Crețu, A. Sălceanu, *One Year Period Survey of Residential Magnetic Fields*, Proceedings of the 14<sup>th</sup> IMEKO TC 4 International Symposium on New Technologies in Measurement and Instrumentation, Gdynia-Jurata, Poland, pp. 325-330, 2005
- V. David, M. Crețu, A. Sălceanu, *The Time and Frequency Domain Measurements of the Magnetic Fields Emitted by Video Display Terminals*, Conference on Precision Electromagnetic Measurements (CPEM2004), NPL, Londra, UK, pp. 400- 401, 2004
- V. David, M. Antoniu, M. Crețu, A. Salceanu, *An isotropic sensor for the measurement of low frequency electric and magnetic fields*, Conference on Precision Electromagnetic Measurements (CPEM 2002), Ottawa, Canada, pp. 20-21, 2002
- V. David, M. Crețu, A. Salceanu, *An asymmetrical sensor for simultaneous electric and magnetic field measurements*, Conference on Precision Electromagnetic Measurements (CPEM 2000), Sydney, Australia, pp. 285-286, 2000
- A. Salceanu, V. David, *Programs and virtual hysteresisgraph for scalar Preisach modelling*, Computer Standards & Interfaces, vol.21, no.4, pp 349-356, 1999
- V. David, M. Antoniu, L. Matei, *A sensor for electric and magnetic-field measurements*, Conference on Precision Electromagnetic Measurements (CPEM 1998), NIST, Washington, D.C., SUA, pp. 578-579, 1998
- V. David, M. Antoniu, E. Vremera, *A triaxis broadband magnetic field meter*, Conference on Precision Electromagnetic Measurements (CPEM1996), PTB, Braunschweig, Germania, pp. 433-434, 1996