

**Prof. Georgeta Mihaela UNGUREANU, PhD <sup>1</sup>**

**Ianuarie 2018**

## **Complete liste of publications - Lista completă de lucrări**

LISTA CELOR MAXIM 10 LUCRARI RELEVANTE (List of the 10 most relevant publications)

1. Miruna Maria Cristina Ștefan, Irina-Emilia Nicolae, R. Strungaru, Mihaela Georgeta Ungureanu, M.Vasile, O.A. Bajenaru, "A Study on the Efficient Tracking of ERD based on the Adaptive Identification of the Subject's Reactive Band", Proc. of the International Conference and Exposition on Electrical and Power Engineering (EPE 2016), 9th edition, 20-22 Oct 2016, Iasi, Romania, pp. 337 – 343, ISBN: 978-1-5090-6129-7, IEEE Explore, ISI indexed, DOI: 10.1109/ICEPE.2016.7781358, Research Areas:Energy & Fuels; Engineering Web of Science Categories:Energy & Fuels; Engineering, Electrical & Electronic, WOS:000390706300068 (Vis3)
2. Țarălungă DD\*, Ungureanu GM\*, Gussi I, Strungaru R, Wolf W. (2014). *Fetal ECG extraction from abdominal signals: a review on suppression of fundamental power line interference component and its harmonics*, Computational and Mathematical Methods in Medicine (Comput Math Methods Med.), 2014:239060, impact factor 0.766, 0.887/2015, 15 pages, 2 col, Research Areas: Mathematical & Computational Biology, Web of Science Categories: Mathematical & Computational Biology, WOS:000331736800001. (Ris2)
3. Ungureanu Georgeta Mihaela (2013): *Analiza și prelucrarea semnalelor: aplicații în ingineria biomedicală* (Digital Signal Processing and Analysis: biomedical engineering applications), MATRIX ROM, ISBN 978-973-755-946-3, 253 pp. (Cb1)
4. Graschew Georgi and Roelofs Theo A. (2011). *Advances in telemedicine: applications in various medical disciplines and geographical regions*, Chapter G. Mihaela Ungureanu, Ilinca Gussi, Werner Wolf, Dragos Taralunga, Sever Pasca and Rodica Strungaru, Advances in Telemedicine, Ch. *Prenatal telemedicine - Advances in fetal monitoring*, InTech Publisher, March 2011, pp. 97-120, ISBN 978-953-307-161-9, 24 pages, 1 col. (D1)
5. Ligges Carolin\*, Ungureanu Mihaela\*, Ligges Marc, Blanz Bernhard, Witte Herbert - *Understanding the time variant connectivity of the language network in developmental dyslexia: new insights through the Granger Causality*, Journal of Neural Transmission, April 2010, 117(4), pp. 529-543. Epub 2010 Jan 26, ISSN 0300-9564, impact factor 2.259/2010, 3.052/2012. 15 pages, 2 col. Web of Science Categories: Clinical Neurology; Neurosciences. Research Areas: Neurosciences & Neurology. WOS:000276375800013 (Ris3)
6. **Hemmelmann Dirk\*, Ungureanu Mihaela\*, Hesse Wolfram, Wüstenberg T., Reichenbach J.R., Witte O.W., Witte H. and Leistriz L. - *Modelling and analysis of time-variant directed interrelations between brain regions based on BOLD-signals*, NeuroImage, 15 April 2009, 45(3), ISSN 1053-8119, pp. 722-737, impact factor 5.457/2009, 6.252/2012 (ISI), 16 pages, 2 col. Web of Science Categories: Neurosciences; Neuroimaging; Radiology, Nuclear Medicine & Medical Imaging. Research Areas: Neurosciences & Neurology; Radiology, Nuclear Medicine & Medical Imaging. WOS:000264378400010 (Ris4) (zona rosie)**
7. Ungureanu G. Mihaela , Bergmans Johannes W. M., Oei S. Guid, Ungureanu Alexandru, Wolf Werner - *Comparison and evaluation of existing methods for the extraction of low amplitude electrocardiographic signals: a possible approach to transabdominal fetal ECG*, Biomed. Tech., 54(2), February 2009, pp. 66-75, ISSN 0013-5585, impact factor 0.525/2009, 1.157/2012, ISI, 10 pages, 2 col. Web of Science Categories: Engineering, Biomedical; Medical Informatics. Research Areas: Engineering; Medical

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<sup>1</sup> \* Ambii autori au contribuit egal la realizarea articolului, și sunt de aceea considerați prim autor (both authors equally contributed to the paper, having the same position as first authors).

- Informatics. WOS:000265674500002 (Ris6)
8. Ungureanu G. M., Bergmans J.W.M., Oei S. G., Ungureanu Al., Wolf W. - *The event synchronous canceller algorithm removes maternal ECG from abdominal signals without affecting the fetal ECG*, Computers in Biology and Medicine (ISI) Comput Biol Med. 2009 Jun, 39(6), pp. 562-567, Epub 2009 May 15, ISSN 0010-4825, impact factor 1.269/2009, 1.162/2012, 6 pages, 2 col. Web of Science Categories: Biology; Computer Science, Interdisciplinary Applications; Engineering, Biomedical; Mathematical & Computational Biology. Research Areas: Life Sciences & Biomedicine - Other Topics; Computer Science; Engineering; Mathematical & Computational Biology. WOS:000267279600009 (Ris7)
  9. Ungureanu M., Bergmans J. W.M., Oei S. Guid, Strungaru R. - *Fetal ECG Extraction during Labor using an Adaptive Maternal Beat Subtraction Technique*, in Biomedizinische Technik, February 2007, 52, pp. 56–60, ISSN 0013-5585, impact factor 0.593/2007, 1.157/2012 (ISI indexed), 6 pages, 2 col. Web of Science Categories: Engineering, Biomedical; Medical Informatics. Research Areas: Engineering; Medical Informatics WOS:000244906400010 (Ris9)
  10. Ungureanu M., Wolf W. – *Basic Aspects Concerning the Event-Synchronous Interference Canceller*, **IEEE Trans. Biomed. Eng.**, 53 (11), November 2006, pp. 1-8, ISSN 0018-9294, impact factor 2.302/2006, 2.348/2012 (ISI indexed), 8 pages, 2 col. Web of Science Categories: Engineering, Biomedical. Research Areas: Engineering. WOS:000241536900013 (Ris10) (zona rosie)

## TEZA (E) DE DOCTORAT (T) (PhD Theses)

T1. Ungureanu G.M. *Analiza și simularea unor procese în sistemul neuromuscular* (Analysis and Simulation of Some Processes in Neuromuscular System), appreciated with distinction MAGNA CUM LAUDAE, Politehnica University of Bucharest, Specialization Electronics and Telecommunication (170 pages), 2002.

## BREVETE DE INVENȚIE / INOVAȚII (B,A) (Patents/Innovations)

## CĂRȚI PUBLICATE (C) (Published books)

**Ca** – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute. (Books/Lectures notes for students, with a recognized publisher)

- Ca.1.** - Ungureanu G. Mihaela – *Structuri de date și algoritmi* (Data Structures and Algorithms), MATRIX ROM, 2012, ISBN 978-973-755-794-0 (180 pages) (recognized by CNCISIS).
- Ca.2.** Grigore Ovidiu, Ungureanu Mihaela, Coordonator: Tomescu Niculae – *Programare C* (C Programming), Ed. Printech, 1999, ISBN 973-9475-96-5 (114 pages).

**Cb** - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor). (Specialized book, with a recognized publisher)

- Cb.1.** Ungureanu Georgeta Mihaela (2013): *Analiza și prelucrarea semnalelor: aplicații în ingineria biomedicală* (Digital Signal Processing and Analysis: biomedical engineering applications), MATRIX ROM, ISBN 978-973-755-946-3 (253 pages) (recognized by CNCISIS).
- Cb.2.** Ungureanu G. Mihaela – *Prelucrarea digitală a semnalelor* (Digital Signal Processing), MATRIX ROM, 2008, ISBN 978-973-755-409-3 (180 pages) (recognized by CNCISIS).

**Cc** - Cărți publicate în alte edituri, cu ISBN. (Other published books, with ISBN)

- Cc.1.** -

## ALTE MATERIALE PUBLICATE (I,D) (Other published materials)

**I** - Culegeri și Îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern). (Collections of problems and Lab manuals – separately the ones printed by publishers, with ISBN, and the one printed locally, or internally used)

- I.1.** Georgeta-Mihaela Ungureanu - *Prelucrarea digitală a semnalelor. Probleme și aplicații Matlab* (Digital Signal Processing. Problems and Matlab Applications), Ed. Matrix ROM, 2016, ISBN: 978-606-25-0247-8 (124 pages).
- I.2.** Ungureanu Mihaela, Munteanu Cristian, Dumitras Adriana, Vieru Rodica, Coordonator: Prof.Dr.Ing. Lazarescu Vasile - *Prelucrarea digitală a semnalelor. Aplicații Matlab* (Digital Signal Processing.

- Matlab Applications), Matrix ROM, 2003, ISBN 973-685-669-0 (106 pages)
- I.3.** Ungureanu Mihaela, Strungaru Cozana, *Prelucrarea digitală a semnalelor - Culegere de probleme* (Digital Signal Processing – Exercises), Ed. Matrix ROM, 1999, ISBN 973-685-051-X (192 pages)
- I.4.** Radescu Radu, Comaniciu Dorin, Strungaru Cozana, Ungureanu Mihaela – *Prelucrarea digitală a semnalelor – Îndrumar de laborator* (Digital Signal Processing – Applications for the Laboratory), Ed. Matrix ROM, 1999, ISBN 973-685-001-3 (171 pages)

**D** - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc. (Other published works: chapters in collective volumes, theoretical chapters, functional lab systems, etc.)

- D.1.** Grasczew Georgi and Roelofs Theo A. (2011). *Advances in telemedicine: applications in various medical disciplines and geographical regions*, Chapter G. Mihaela Ungureanu, Ilinca Gussi, Werner Wolf, Dragos Taralunga, Sever Pasca and Rodica Strungaru, *Advances in Telemedicine*, Ch. *Prenatal telemedicine - Advances in fetal monitoring*, InTech Publisher, March 2011, pp. 97-120, ISBN 978-953-307-161-9, 24 pages, 1 col, <http://0-www.worldcat.org/novocat.nova.edu/search?q=ti%3A%22Advances+in+telemedicine%3A+applications+in+various+medical+disciplines+and+geographical+regions%22&qt=advanced&dblist=638>.
- D.2.** Teodorescu Horia-Nicolai (2004). *Intelligent Systems in Medicine* - Selected papers from ECIT2004. Chapter Ungureanu Mihaela, Bauer Maximilian, Wolf Werner, Strungaru Rodica and Cososchi Stefan - *New Method for Snore Detection based on Wavelet Transform*, Book published under the aegis of “The Ministry of Education and Research” and “The Institute of Electrical and Electronics Engineers - Romanian Section”, Performantica (appreciated by CNCSIS), Iasi, 2004, pp. 31 –45, ISBN 973-7994-82-5 (124 pages), 15 pages, 1 col. This work was also published in Proc.: 3rd European Conference on Intelligent Systems and Technology, Iasi, Romania, 21-23 July 2004, CD with ISBN 973-7994-78-7, 13 pages, 1 col.
- D.3.** Craus M., Galea D., Valachi Al. – *New trends in computer science and engineering*, Chapter: Strungaru Rodica and Ungureanu Mihaela - *Artificial Inteligence in Myoelectric Signal Processing*, Polirom Press, Iasi (appreciated by CNCSIS), 2003, pp. 224-237, ISBN 973-9476-40-6 (264 pages), 14 pages, 1 col.
- D.4.** Pandalai S. G. - *Recent Research Developments in Biomedical Engineering*, Chapter Ungureanu Mihaela, Kroworsch Bauer, Wolf Werner - *Diaphragmatic EMG Monitoring: Some Aspects on Specific Signal Processing Requirements*, Transworld Research Network, 1(2002), pp. 49-66, ISBN 81-7895-013-8 (193 pages), 18 pages, 1 col., [http://0-www.worldcat.org/novocat.nova.edu/search?qt=worldcat\\_org\\_all&q=Recent+Research+Developments+in+Biomedical+Engineering](http://0-www.worldcat.org/novocat.nova.edu/search?qt=worldcat_org_all&q=Recent+Research+Developments+in+Biomedical+Engineering)

## ARTICOLE / STUDII IN EXTENSO PUBLISHATE (R,V) (Extended published papers/studies)

**Ris** - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate in alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanta). *Se mentioneaza la fiecare lucrare includerea in Baza ISI [ultimul Factor Impact, ISSN] si/sau denumirea altei (altor) BDI.*

(Internationally recognized specialized journals: with impact factor/ ISI Thomson Reuters indexed or indexed in other domain specific international databases, that select the journals according to performance criteria. For each publication it is specified if there is either a ISI or a BDI journal publication. For impact factor publication, the last impact factor and the ISSN are specified.)

### Ris ISI indexed

- Ris.1.** Piper D, Schiecke K, Leistriz L, Pester B, Benninger F, Feucht M, Ungureanu M, Strungaru R, Witte H. (2014). *Synchronization analysis between heart rate variability and EEG activity before, during, and after epileptic seizure*, Biomed Tech (Berl), 2014 Aug;59(4):343-55, ISSN 0013-5585, impact factor 0.525/2009, 1.157/2012, 1.650/2015, Web of Science Categories:Engineering, Biomedical; Medical Informatics, WOS:000342072900009.
- Ris.2.** Țarălungă DD\*, Ungureanu GM\*, Gussi I, Strungaru R, Wolf W. (2014). *Fetal ECG extraction from abdominal signals: a review on suppression of fundamental power line interference component and its harmonics*, Computational and Mathematical Methods in Medicine (Comput Math Methods Med.), 2014:239060, impact factor 0.766, 0.887/2015, 15 pages, 2 col, Research Areas: Mathematical &

Computational Biology, Web of Science Categories: Mathematical & Computational Biology, WOS:000331736800001.

- Ris.3.** Ligges Carolin\*, Mihaela Ungureanu\*, Marc Ligges, Bernhard Blanz, Herbert Witte - *Understanding the time variant connectivity of the language network in developmental dyslexia: new insights through the Granger Causality*, Journal of Neural Transmission, April 2010, 117(4), pp. 529-543. Epub 2010 Jan 26, ISSN 0300-9564, impact factor 2.259/2010, 3.052/2012, 2.587/2015. 15 pages, 2 col. Web of Science Categories: Clinical Neurology; Neurosciences. Research Areas: Neurosciences & Neurology WOS:000276375800013.
- Ris.4.** **Hemmelmann Dirk\***, **Ungureanu Mihaela\***, Hesse Wolfram, Wüstenberg T., Reichenbach J.R., Witte O.W., Witte H. and Leistriz L. - *Modelling and analysis of time-variant directed interrelations between brain regions based on BOLD-signals*, NeuroImage, 15 April 2009, 45(3), ISSN 1053-8119, pp. 722-737, impact factor 5.457/2009, 6.252/2012, 5.463/2015 (ISI), 16 pages, 2 col. Web of Science Categories: Neurosciences; Neuroimaging; Radiology, Nuclear Medicine & Medical Imaging. Research Areas: Neurosciences & Neurology; Radiology, Nuclear Medicine & Medical Imaging. WOS:000264378400010 (zona rosie)
- Ris.5.** Witte H., Ungureanu Mihaela, Ligges C., Hemmelmann D., Wüstenberg T., Reichenbach J., Astolfi L., Babiloni F., Leistriz L. - *Signal informatics as an advanced integrative concept in the framework of medical informatics: New trends demonstrated by examples derived from neuroscience*, Methods of Information in Medicine, 1/2009, pp. 1-11, ISSN 0026-1270, impact factor 1.69/2009, 1.60/2012, 2.248/2014 (ISI), 11 pages, 3 col. Web of Science Categories: Computer Science, Information Systems; Health Care Sciences & Services; Medical Informatics. Research Areas: Computer Science; Health Care Sciences & Services; Medical Informatics. WOS:000262991700004
- Ris.6.** Ungureanu G. Mihaela, Bergmans Johannes W. M., Oei S. Guid, Ungureanu Alexandru, Wolf Werner - *Comparison and evaluation of existing methods for the extraction of low amplitude electrocardiographic signals: a possible approach to transabdominal fetal ECG*, Biomed. Tech., 54(2), February 2009, pp. 66-75, ISSN 0013-5585, impact factor 0.525/2009, 1.157/2012, 1.650/2015, ISI, 10 pages, 2 col. Web of Science Categories: Engineering, Biomedical; Medical Informatics. Research Areas: Engineering; Medical Informatics. WOS:000265674500002
- Ris.7.** Ungureanu G. M., Bergmans J.W.M., Oei S. G., Ungureanu Al., Wolf W. - *The event synchronous canceller algorithm removes maternal ECG from abdominal signals without affecting the fetal ECG*, Computers in Biology and Medicine (ISI) Comput Biol Med. 2009 Jun, 39(6), pp. 562-567, Epub 2009 May 15, ISSN 0010-4825, impact factor 1.269/2009, 1.162/2012, 1.521/2015, 6 pages, 2 col. Web of Science Categories: Biology; Computer Science, Interdisciplinary Applications; Engineering, Biomedical; Mathematical & Computational Biology. Research Areas: Life Sciences & Biomedicine - Other Topics; Computer Science; Engineering; Mathematical & Computational Biology. WOS:000267279600009
- Ris.8.** Weiss T.\*, Hesse W.\*, Ungureanu M., Hecht H., Leistriz L, Witte H., Miltner W. H. R. - *How do brain areas communicate during the processing of noxious stimuli? An analysis of laser evoked event-related potentials using the Granger Causality Index*, J. Neurophysiology, 2008 May, 99(5), pp. 2220-2231, ISSN 0022-3077, impact factor 3.648/2008, 3.301/2012, 2.653/2015, 12 pages, 2 col. Web of Science Categories: Neurosciences; Physiology. Research Areas: Neurosciences & Neurology; Physiology. WOS:000255811500016
- Ris.9.** Ungureanu M., Bergmans J. W.M., Oei S. Guid, Strungaru R. - *Fetal ECG Extraction during Labor using an Adaptive Maternal Beat Subtraction Technique*, in Biomedizinische Technik, February 2007, 52, pp. 56-60, ISSN 0013-5585, impact factor 0.593/2007, 1.157/2012, 1.650/2015 (ISI indexed), 6 pages, 2 col. Web of Science Categories: Engineering, Biomedical; Medical Informatics. Research Areas: Engineering; Medical Informatics. WOS:000244906400010
- Ris.10.** Ungureanu M., Wolf W. - *Basic Aspects Concerning the Event-Synchronous Interference Canceller*, IEEE Trans. Biomed. Eng., 53 (11), November 2006, pp. 1-8, ISSN 0018-9294, impact factor 2.302/2006, 2.348/2012, 2.468/2015 (ISI indexed), 8 pages, 2 col. Web of Science Categories: Engineering, Biomedical. Research Areas: Engineering. WOS:000241536900013 (zona rosie)
- Ris.11.** Ungureanu M., Strungaru R., Lazarescu V. (1998). *Myoelectric Signal Classification using Neural Networks*. In: Biomedizinische Technik, Vol. 43(3), 1998, 87-90. Factor impact 1.157/2012, 1.650/2015 (ISI indexed), 4 pages, 2 col., Research Areas: Medical Laboratory Technology; Neurosciences & Neurology; Computer Science (provided by Thomson Reuters)

### Ris BDI indexed

- Ris.12.** Hurezeanu, B., D. Taralunga, R. Strungaru, I. Gussi, W. Wolf, and G. M. Ungureanu (2015). *Robust fetal heart beat detection by applying stationary wavelet transform*, U.P.B. Sci. Bull., Series C, Vol. 77, Iss. 4, 2015, ISSN 2286-3540, pp. 273-284. BDI (Index Scopus Scopus coverage years:from 2008 to 2016 Publisher:Politechnica University of Bucharest ISSN:1454-234XE-ISSN:2286-3559 Subject area:Engineering: Electrical and Electronic Engineering Set document alert Visit Scopus Journal Metrics↗ CiteScore 2015 0.17 SJR 2015 0.208 SNIP 2015 0.235 ; Inspec; CNCSIS B+ category), 14 pages, 1 col. Indexed keywords
- Ris.13.** Nazih Hamdiken, Rafik Addaci, Tarek Fortaki, Rodica Strungaru, Mihaela Ungureanu. *Fast accurate analysis and modeling of multi-antenna systems in the [1.75-3.65 GHz] frequency band*. U.P.B. Sci. Bull., Series C, Vol. 77, Iss. 4, pp. 305-312, 2015, ISSN 2286-3540. BDI (Index Scopus - Index Scopus Scopus coverage years:from 2008 to 2016 Publisher:Politechnica University of Bucharest ISSN:1454-234XE-ISSN:2286-3559 Subject area:Engineering: Electrical and Electronic Engineering Set document alert Visit Scopus Journal Metrics↗ CiteScore 2015 0.17 SJR 2015 0.208 SNIP 2015 0.235; Inspec; CNCSIS B+ category), 8 pages, 1 col. Indexed keywords
- Ris.14.** Ghoggali S., Ungureanu M., Strungaru R. (2013). *A Genetic Algorithm and Ensemble of SVM Approach for BCI P300 Classification Problem*, U.P.B. Sci. Bull., Series C, Vol. 75, Iss. 2, 2013 ISSN 2286 – 3540. BDI (Index Scopus; Inspec; CNCSIS B+ category), 14 pages, 1 col. Indexed keywords BCI P300 speller; Classification accuracy; Discriminative features; Ensemble of classifiers; Feature detection; Genetic algorithm (GAs); Linear Support Vector Machines; Support vector machine (SVMs). Engineering controlled terms: Genetic algorithms. Engineering main heading: Support vector machines.
- Ris.15.** Țarălungă D., Strungaru R., Ungureanu M., Wolf W. (2012): *Abdominal signals: different concepts for reliable fECG recordings*. In: U.P.B. Sci. Bull., Series C, Vol. 74(3), pp. 201-218, 218, ISSN 1454-234x. BDI (Index Scopus; Inspec; CNCSIS B+ category), 18 pages, 1 col. Indexed keywords Abdominal signal; Concentric rings; fECG signal; MECG signal; Powerline interference. Engineering controlled terms: Electrodes. Engineering main heading: Electrocardiography.
- Ris.16.** Ungureanu G. Mihaela, Rodica Strungaru (2011). *Effective connectivity analysis using multivariate linear models: some practical considerations*, University of Pitesti Scientific Bulletin, Series: Electronics and Computers Science, vol. 11(2), pp. 65-70, ISSN 1453-1119. BDI (Index Copernicus Journal Master List, graded with an ICV = 4.79.; Genamics Database; CNCSIS B+ category), 6 pages, 2 col. Topics: circuits and equipments; Communications; Microwaves - techniques and technologies & EMC; Bio-medical applications & biomaterials; Software computer applications; Data bases; Expert systems & Artificial Intelligence; Educational Multimedia applications; Environmental issues.
- Ris.17.** Perianu Florin, Cornita Vasile, Strungaru Rodica, Pasca Sever and Ungureanu Mihaela - *Comparative Study of Online Color-Based Image Retrieval Algorithms in Medical Applications*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 145–150, BDI (Scopus), 6 pages, 1 col. This work was also selected for Poster presentation in Session 1, Exploratory Workshop – BIOINGTEH, Sept. 18-20, 2008, Abstract Book, pp. 22. Indexed keywords Color spaces; Content based image retrieval algorithms; Image query; Quantization; Similitude between images. Engineering controlled terms: Algorithms; Content based retrieval; Image enhancement; Information retrieval; Medical applications; Photographic accessories. Engineering main heading: Color
- Ris.18.** Gohar O., Ungureanu G. M. and Strungaru R - *Telemedicine – Medical Teleconferencing System*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 195–207, BDI (Scopus), 13 pages, 2 col. This work was also selected for Poster presentation in Session 1, Exploratory Workshop – BIOINGTEH, September 18-20, 2008, Abstract Book, pp. 25. Indexed keywords Acceptance rate; Distance learning; File transfers; Further development; High speed lines; Internet connection; Medical databases; Network support; Offline data; On-the-job training; Remote consultation; Security; Telemedicine systems; Virtual workspaces. Engineering controlled terms: Database systems; Distance education; Internet; Medical computing; Online systems; Signal processing; Teleconferencing. Engineering main heading: Telemedicine
- Ris.19.** Cornita V., Strungaru Rodica, Pasca Sever, Ungureanu Mihaela and Perianu Florin - *Medical Image Database Kernel with a NN Selection Driven Image Retrieval Algorithm*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 209–217, BDI (Scopus), 9 pages, 1 col. This work was also selected for Poster presentation in Session 1, Exploratory Workshop – BIOINGTEH, Sept. 18-20, 2008, Abstract Book, 23. Indexed keywords Color distribution; Content based image retrieval algorithms; Euclidian distance; Histogram intersection; HSV color spaces; Image database systems; Medical image database; Quadratic distance; Search method; Search results; Semantic information;

Software applications; Target images; Threelayer architecture. Engineering controlled terms: Algorithms; Color; Computer software selection and evaluation; Content based retrieval; Information retrieval; Neural networks; Object oriented programming; Photographic accessories; Semantics; Software architecture. Engineering main heading: Database systems

- Ris.20.** Ungureanu G. M., Constantin A. and Strungaru R. - *Development of New Methods to Control the Energy Expenditure of Walking in Patients with Osteoarthritis*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 231–244, BDI (Scopus), 14 pages, 1 col. This work was also selected for Oral presentation in Session 2, Exploratory Workshop – BIOINGTEH, Sept. 18-20, 2008, Abstract Book, 37-38. Indexed keywords Energy expenditure; Lower limb; Lumbar spines; Mathematic model; Minimum energy; Optimal energy; Optimal walking; Osteoarthritis; Reaction forces; Walking pattern; Walking patterns; Walking trajectory. Engineering controlled terms: Gait analysis; Signal processing. Engineering main heading: Computer software
- Ris.21.** Ungureanu G. M. - *Perspectives on Detecting the Effective Brain Connectivity – The AR Approach*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 245–256, BDI (Scopus), 12 pages, 1 col. This work was also selected for Poster presentation in Session 2, Exploratory Workshop – BIOINGTEH, September 18-20, 2008, Abstract Book, 39-40. Indexed keywords Auto-regressive; Brain areas; Brain connectivity; Cerebral blood flow; EEG Granger causality; Event-related potentials; Functional magnetic resonance imaging; Granger Causality; Heart rates; Mental tasks; Partial correlation; Partial directed coherence; Physiological control; Physiological data; Respiratory signals; Time variant; Time variant autoregressive models. Engineering controlled terms: Blood; Blood pressure; Brain models; Electroencephalography; Magnetic resonance imaging; Signal processing. Engineering main heading: Brain
- Ris.22.** Ungureanu G. M. and Strungaru R. - *Considerations on EEG-based BCIs Applied in the Control of Intelligent Prostheses*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 257–269, BDI (Scopus), 13 pages, 1 col. This work was also selected for Poster presentation in Session 2, Exploratory Workshop – BIOINGTEH, Sept. 18-20, 2008, Abstract Book, 41-42. Indexed keywords EEG; Event related synchronization/desynchronization; ICA; Motor imagery; Time-frequency analysis. Engineering controlled terms: Activation analysis; Blind source separation; Electroencephalography; Hemodynamics; Motors; Signal processing; Silicate minerals; Wavelet transforms. Engineering main heading: Independent component analysis
- Ris.23.** Oprea Alina, Ungureanu Mihaela, Pasca Sever and Strungaru Rodica - *A Novel Approach in Mammogram Segmentation*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 271–280, BDI (Scopus), 10 pages, 1 col. This work was also selected for Poster presentation in Session 2, Exploratory Workshop – BIOINGTEH, Sept. 18-20, 2008, Abstract Book, 45-46. Indexed keywords Annotation application; Cancer tumor; Cancer tumors; Clinical practices; Digital mammograms; Early diagnosis; Mamograms; Preprocessing algorithms; Segmentation algorithms. Engineering controlled terms: Mammography; Oncology; Self organizing maps; Tumors; X ray screens. Engineering main heading: Algorithms
- Ris.24.** Taralunga Dragos D., Werner Wolf, Strungaru Rodica, Dutescu Camelia, Gussi Ilinca and Ungureanu G. Mihaela - *Fetal Electrocardiogram Enhancement from Abdominal Recorded Signals*, Nonlinear Optics and Quantum Optics, October 2009, 39(2-3), ISSN 1543-0537, pp. 281–290, BDI (Scopus), 10 pages, 1 col. Indexed keywords Abdominal signal; Digital processing; Electrocardiogram; Electrohysterogram; ESC; Fetal heart rate. Engineering controlled terms: Electrosag process; Fetal monitoring; Frequency bands; Neonatal monitoring. Engineering main heading: Deceleration
- Ris.25.** Țarălungă D., Wolf W., Strungaru R., Gussi I., Dutescu C., Ungureanu M. (2009). *Abdominal signal recordings - assessment and analysis*. Congresul National de Medicina Perinatala - a VIII-a Editie, 2 - 4 Iulie 2009, Cluj, Romania, rezumat in Obstetrica si Ginecologie (Rev Soc Rom de Obstet Ginecol), iulie 2009, vol LVII, pp. 58-59, ISSN 1220-5532 BDI (Index Copernicus ICV = 3.16, CNCSIS (c), code 254), 2 pages.
- Ris.26.** Ilincai A., Țarălungă D., Wolf W., Dutescu C., Gussi I., Strungaru R., Ungureanu M. (2009). *ECG enhancement by applying the adaptive power line interference cancellers – application on the abdominal fetal ECG extraction*. Congresul National de Medicina Perinatala - a VIII-a Editie, 2 - 4 Iulie 2009, Cluj, Romania, rezumat in Obstetrica si Ginecologie (Rev Soc Rom de Obstet Ginecol), iulie 2009, vol LVII, pp. 58, ISSN 1220-5532 BDI (Index Copernicus ICV = 3.16, CNCSIS (c), code 254), 1 page.
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**Rns** - Reviste de specialitate de circulație națională recunoscute de CNCSIS. Se mentioneaza Categoria CNCSIS. (National journals publications in CNCSIS appreciated journals. The CNCSIS cathegoy must be specified)

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- Rns.6.** Lazarescu D., Lazarescu V., Ungureanu M. - *Knock Detection based on Neural Networks*, Buletinul Stiintific al Universitatii Politehnica din Timisoara, Seria Electronica si Telecomunicatii, Numar special dedicat Simpozionului de "Electronica si Telecomunicatii", ETc2004 (Scientific Bulletin of Politehnica University of Timisoara – Electronics and Telecommunications Series, special number dedicated to the Symposium of Electronics and Telecommunications - ETc2004, 22-23 October 2004, Timisoara, Romania), vol. 49(63), Fascicola 1, pp. 253-255, ISSN 1583-3380, 3 pages, 2 col., (CNCSIS B code

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- Rns.10.** Ungureanu M., Strungaru R., Lazarescu V. - *Discrete Wavelet Transform for Noise Removing in EMG Signal*. European Conference on Intelligent Systems and Technologies, Iasi, Romania, 2002, Inventics Review (Revista de Inventica), Vol. VII, nr. 38, pp. 40-42, ISSN 1210-3084, 3 pages, 2 col., appreciated by CNCSIS (D). This paper was also printed in the CD Proc. of ECIT2002 conference, ISBN 973-8075-20-3.

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- Rno.2.** Cososchi St., Strungaru R., Ungureanu M. - *Features Extraction of Motor Representations Using Neurofuzzy Networks*, Fuzzy Systems and Artificial Intelligence Journal, Publishing House of the Romanian Academy (appreciated by CNCSIS), Vol. 10, No. 3, 2004, ISSN 1454-8267, pp. 57-63, 7 pages, 1 col.
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Proceedings of international conferences, organized in Romania and abroad, indexed by ISI Thomson Reuters or by other international databases (BDIs) - these international databases are domain specific and select the publications according to performance criteria. For each publication it is mentioned whether it is an ISI publication (ISI Proceedings, ISSN) or a BDI publication (the name of the BDI is specified)

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- Vis.6.** Nicolae I. E., M. Ungureanu, L. Acqualagna, R. Strungaru and B. Blankertz, “*Spectral Perturbations of the Depth of Cognitive Processing for Brain-Computer Interface Systems*”, 5-th edition of the International Conference on e-Health and Bioengineering (EHB 2015), 19-21 November, Iasi, Romania, pp. 1-4, 2015, ISBN:978-1-4673-7545-0, IEEE Explore, ISI indexed, WOS:000380397900126, INSPEC:15753089, DOI: 10.1109/EHB.2015.7391473.
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**B** - Brevete de invenție. (Patents)

**A** - Inovații și alte creații. (Innovations)

## CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F) (Research grants and reports)

*Obs.-a se menționa calitatea de responsabil/director sau coautor. (It is mentioned whether the involved persone is the principal investigator/director or a team member).*

**P** – Proiecte de cercetare-dezvoltare – inovare obtinute prin competitie, pe bază de contract/grant, in tara/strainatate (Research-Development-Innovation grants, won in a call, based on a contract/grant, in Romania/abroad) (**Pn** – nationale (national), **Pi** – internationale (international)).



**Director pentru următoarele granturi naționale (Principal investigator of the following national grants)**

- Pn.1.** Grant CNSIS IDEI ID\_1723/2009, finanțat de Consiliul Național al Cercetării Științifice din Învățământul Superior - *Contribuții la monitorizarea maternă și fetală neinvazivă în timpul sarcinii și al travaliului* (competiția 2008). 2009 (12 luni) (105.042 lei/2009). (7 publicații rezultate, dintre care 2 publicații în reviste ISI, 2 publicații în reviste BDI, restul fiind publicații în volumele unor conferințe internaționale)  
Grant CNSIS IDEI ID\_1723/2009, supported by The National University Research Council in Romania - *Contributions to the noninvasive maternal and fetal monitoring during pregnancy and labor*. (2008 competition). 2009 (12 months) (400.000 lei/2009). (7 publications: 2 impact factor publications, 2 publications indexed in international databases – BDI publications, the remaining publications appearing in proceedings of international conferences)  
<http://cncsis.gov.ro/UserFiles/File/rezultate%20finale/inginerie%20electronica.pdf>
- Pn.2.** Grant CNCISIS A 146/2007. *Monitorizarea fetală prin utilizarea înregistrărilor abdominale neinvazive: extragerea și analiza ECG-ului fetal în vederea diagnosticării*. 2007-2008 (2 ani) ([http://uefiscdi.gov.ro/UserFiles/File/granturi/2008/A\\_CONTINUARI\\_FINANTATE.htm](http://uefiscdi.gov.ro/UserFiles/File/granturi/2008/A_CONTINUARI_FINANTATE.htm)). (192.856,45 lei) (15 publicații la sfârșitul grantului, dintre care 4 publicații în reviste ISI, 2 fiind în pregătire; 2 publicații în reviste BDI; 3 publicații în volumele unor conferințe ISI; restul publicațiilor au fost incluse în volumele unor conferințe internaționale peer-reviewed)  
Grant CNCISIS A 146/2007. *Fetal monitoring by using the non-invasive abdominal recordings: fetal ECG extraction and its analysis for diagnosis*, supported by The National University Research Council in Romania. 2007-2008. (2 years) (100.000 lei) (15 publications reported when the grant was finalized: 4 impact factor publications (2 manuscripts); 2 BDI journal publications; 3 papers in ISI conference proceedings; the remaining publications were included in proceedings of peer-reviewed international conferences)  
[http://cncsis.gov.ro/userfiles/file/granturi/2007/proces%20de%20evaluare%20-%20tip%20A%202007/COMISIA\\_2\\_A\\_NOI\\_FINANTATE.htm](http://cncsis.gov.ro/userfiles/file/granturi/2007/proces%20de%20evaluare%20-%20tip%20A%202007/COMISIA_2_A_NOI_FINANTATE.htm)
- Pn.3.** Grant AT 179/2004, *Sistem informatic bazat pe analiza polisomnografică pentru diagnosticarea și tratamentul preventiv al afecțiunilor sistemului respirator*, finanțat de CNCISIS (The National University Research Council in Romania – [http://vechi.cncsis.ro/index\\_afisare\\_2006.php?id=311](http://vechi.cncsis.ro/index_afisare_2006.php?id=311) ). 2004-2005 (2 ani). (4 publicații la sfârșitul grantului, dintre care 1 capitol de carte - editură recunoscută CNCISIS, 1 publicație în volumul unei conferințe ISI și 2 publicații în volumele unor conferințe internaționale peer-reviewed) (33.000 mii lei).  
Grant AT 179/2004, *Informatics system for diagnosis and early detection of respiratory system diseases, based on PSG (polysomnogram)*, supported by CNCISIS (The National University Research Council in Romania – [www.cncsis.ro](http://www.cncsis.ro)). 2004-2005. (2 years) (4 publication reported when the grant was finalized: 1 book chapter – published appreciated by CNCISIS, 1 paper in an ISI conference proceeding and 2 publications in peer-reviewed international conference proceedings) (300.000 thousands lei).  
[http://cncsis.gov.ro/userfiles/file/granturi/2007/proces%20de%20evaluare%20-%20tip%20A%202007/COMISIA\\_2\\_A\\_NOI\\_FINANTATE.htm](http://cncsis.gov.ro/userfiles/file/granturi/2007/proces%20de%20evaluare%20-%20tip%20A%202007/COMISIA_2_A_NOI_FINANTATE.htm)

**Membră în echipele de cercetare ale următoarelor granturi naționale (Team member in the following national grants)**

- Pn.4.** Grant CEEX PNCDI-2 11-069 *Proteze locomotorii inteligente*, finanțat de Planul Național Pentru Cercetare - Dezvoltare și Inovare 2007 – 2013, Programul 4 “Parteneriate în domeniile prioritare”. Director Prof. Dr. Ing. Strungaru Rodica. 2007 – 2010 (36 luni) .  
Grant CEEX PNCDI-2 11-069 *Intelligent locomotor prostheses* (Proteze locomotorii inteligente), supported by ANCS (The National Authority for Scientific Research), National Plan for Research, Development, and Innovation 2007 – 2013, Program 4 - Priority Areas Partnership. Director Prof. Dr. Ing. Strungaru Rodica. 2007-2010 (36 months).
- Pn.5.** Platformă CNCISIS de formare și cercetare interdisciplinară (BIOINGTECH) *Platforma interdisciplinara bioinginerie biotehnologie pentru cercetare, dezvoltare și formare profesională*, finanțat de Consiliul Național al Cercetării Științifice din Învățământul Superior. Director Prof.Dr.Ing. Morega Alexandru. 2007-2008. (24 luni)  
CNCISIS Platform for interdisciplinary training and research (BIOINGTECH) *An interdisciplinary program of research, development and professional education in bioengineering - biotechnology* (Platforma interdisciplinara bioinginerie biotehnologie pentru cercetare, dezvoltare și formare

- profesională), supported by CNCSIS. Director Prof.Dr.Ing. Morega Alexandru. 2007-2008. (24 months)
- Pn.6.** Grant CEEX MCT – PNCDI, program INFOSOC, nr. PC-D03-PT03-677 **Formarea unei rețele integrate de cercetare în domeniul metodelor, analizelor și echipamentelor pentru determinarea pattern-urilor consumului caloric și pattern-urilor de dinamică în timpul mersului la subiecți cu boli cronice**, finanțat de Ministerul Educației și Cercetării din România, Planul Național de Cercetare, Dezvoltare și Inovare, Programul INFOSOC. Director Prof.Dr.Ing. Strungaru Rodica. 2005-2008 (36 luni).  
Grant CEEX MCT – PNCDI, program INFOSOC, nr. PC-D03-PT03-677 **Development of an integrated network for research regarding methods, analysis and equipments for pattern detection of caloric use in subjects with chronic diseases** (Formarea unei rețele integrate de cercetare în domeniul metodelor, analizelor și echipamentelor pentru determinarea pattern-urilor consumului caloric și pattern-urilor de dinamică în timpul mersului la subiecți cu boli cronice), supported by MCT – PNCDI (The Romanian Ministry of Education, Research and Youth, The National Plan for Research, Development and Innovation – www.mct.ro), under INFOSOC Program. Director Prof.Dr.Ing. Strungaru Rodica. 2005-2008 (36 months). (also report writing)
- Pn.7.** Grant CNCSIS A 353/2005 -38, **Instrumente de extragere a informației din semnale medicale pentru sisteme informatice e-health**, finanțat de Consiliul Național al Cercetării Științifice din Învățământul Superior. Director Prof.Dr.Ing. Strungaru Rodica. 2005-2008 (36 luni) (Redactare raport).  
Grant CNCSIS A 353/2005 -38, **Tools for information extraction from medical signals applied to e-health systems** (Instrumente de extragere a informației din semnale medicale pentru sisteme informatice E-health), supported by CNCSIS. Director Prof.Dr.Ing. Strungaru Rodica. 2005-2008 (36 months) (also report writing).
- Pn.8.** Grant MCT-PNCDI VIASAN nr. 17.04.10/29.10.2004 (subcontract grant VIASAN nr. 179/2004), **Concept de sistem integrat de înregistrare, analiză și conversie digitală a biopotențialelor cerebrale motorii voluntare**, finanțat de Ministerul Educației și Cercetării din România, Planul Național de Cercetare, Dezvoltare și Inovare, Programul Viață și Sănătate. Director Prof. Dr. Ing. Pasca Sever. 29.10.2004-15.05.2006 (19 luni). (also report writing)  
Grant MCT-PNCDI VIASAN nr. 17.04.10/29.10.2004 (subcontract grant VIASAN nr. 179/2004), **Concept of an integrated system for recording, analysis and digital conversion dedicated to EEG processing in voluntary skilled motor activity** (Concept de sistem integrat de înregistrare, analiza și conversie digitală a biopotențialelor cerebrale motorii voluntare), supported by MCT-PNCDI VIASAN. Director Prof. Dr. Ing. Pasca Sever. 2004-2006 (19 months) (also report writing).
- Pn.9.** Grant MCT-PNCDI VIASAN nr. 17.04.11/29.10.2004 (subcontract grant VIASAN nr. 180/2004), **Soluții conceptuale pentru valorificarea conversiei digitale a biopotențialelor motorii cerebrale voluntare în comanda unor sistem de acționare extracorporale**, finanțat de Ministerul Educației și Cercetării din România, Planul Național de Cercetare, Dezvoltare și Inovare, Programul Viață și Sănătate. Director Prof. Dr. Ing. Pasca Sever. 29.10.2004 - 22.05.2006 (19 luni). (also report writing)  
Grant MCT-PNCDI VIASAN nr. 17.04.11/29.10.2004 (subcontract grant VIASAN nr. 180/2004), **Conceptual solutions for EEG processing in voluntary skilled motor activity** (Soluții conceptuale pentru valorificarea conversiei digitale a biopotențialelor motorii cerebrale voluntare în comanda unor sistem de acționare extracorporale), supported by MCT-PNCDI VIASAN. Director Prof. Dr. Ing. Pasca Sever. 2004-2006 (19 months) (also report writing).
- Pn.10.** Grant MCT-PNCDI VIASAN nr. 17.04.12/29.10.2004 (subcontract grant VIASAN nr. 181/2004), **Ipoteze, modele conceptuale de lucru și soluții tehnice de neuromodulare**, finanțat de Ministerul Educației și Cercetării din România, Planul Național de Cercetare, Dezvoltare și Inovare, Programul Viață și Sănătate. Director Prof. Dr. Ing. Pasca Sever. 29.10.2004 - 5.06.2006 (19 luni). (Redactare raport)  
Grant MCT-PNCDI VIASAN nr. 17.04.12/29.10.2004 (subcontract grant VIASAN nr. 181/2004), **Hypothesis, conceptual models and technical solutions for neuromodulation** (Ipoteze, modele conceptuale de lucru și soluții tehnice de neuromodulare), supported by MCT-PNCDI under VIASAN Program (Life and Science). Director Prof. Dr. Ing. Pasca Sever. 2004-2006 (19 months) (also report writing)
- Pn.11.** Grant MCT 836/1996, document adițional 334/9.04.1998, **Metode de diagnosticare medicală bazate pe tehnici computaționale**, finanțat de Ministerul Cercetării și Tehnologiei din România. Director Prof. Dr. Ing. Lăzărescu Vasile. 1996-2002. (3 ani: 1999-2001)  
Grant MCT 836/1996, additional document 334/9.04.1998, **Methods for medical diagnosis based on**

computational techniques, supported by MCT-PNCIDI VIASAN. Director Prof. Dr. Ing. Lazarescu Vasile. 1996-2002 (3 years: 1999-2001).

- Pn.12.** Grant MCT 836/1996, document adițional 334/9.04.1998, *Aplicații ale rețelelor neurale artificiale în diagnosticarea maladiilor cronice*, finanțat de Ministerul Cercetării și Tehnologiei din România. Director Prof. Dr. Ing. Lăzărescu Vasile. 1996-2002. (3 ani: 1999-2001)  
Grant MCT 836/1996, additional document 334/9.04.1998, Applications of neural networks in the diagnosis of chronic maladies (Aplicații ale rețelelor neurale artificiale în diagnosticarea maladiilor cronice), supported by MCT. Director Prof. Dr. Ing. Lazarescu Vasile. 1996-2002 (3 years: 1999-2001).
- Pn.13.** Grant MCT 836/1996, document adițional 334/9.04.1998. *Aplicații ale algoritmilor evolutivi în probleme de teledetecție satelitară*, finanțat de Ministerul Cercetării și Tehnologiei din România. Director Prof. Dr. Ing. Lăzărescu Vasile. 1996-2002. (3 ani: 1999-2001)  
Grant MCT 836/1996, additional document 334/9.04.1998. *Applications of the evolutionary algorithms in the satellite teledetection* (Aplicații ale algoritmilor evolutivi în probleme de teledetecție satelitară), supported by MCT. Director Prof. Dr. Ing. Lazarescu Vasile. 1996-2000 (3 years: 1999-2001).
- Pn.14.** Grant MCT 836/1996, document adițional 334/9.04.1998, *Algoritmi și metode pentru vizualizarea științifică a datelor biomedicale*, finanțat de Ministerul Cercetării și Tehnologiei din România. Director Prof. Dr. Ing. Lazarescu Vasile. 2000-2002. (2 ani)  
Grant MCT 836/1996, additional document 334/9.04.1998, *Algorithms and methods for scientific visualization of biomedical data* (Algoritmi și metode pentru vizualizarea științifică a datelor biomedicale), supported by MCT. Director Prof. Dr. Ing. Lazarescu Vasile. 2000-2002 (2 years).

**Investigator principal pentru următoarele granturi internaționale (Principal investigator of the following international grants)**

- Pi.1.** Grant DAAD A/14/02351 (2 months), *Fetal monitoring: the performance of Independent Component Analysis (ICA) in fetal ECG extraction from abdominal signals demonstrated by real and model generated data*, Universitaet der Bundeswehr, Muenchen, Germany. 2014 (2 luni). (4300 Euro) (1 manuscris revista ISI, 4 articole in volumul unei conferinte indexat ISI)  
Grant DAAD A/14/02351 (2 months), *Fetal monitoring: the performance of Independent Component Analysis (ICA) in fetal ECG extraction from abdominal signals demonstrated by real and model generated data*, Universitaet der Bundeswehr, Muenchen, Germany. 2014 (2 months). (4300 Euro) (1 ISI journal manuscript, 4 papers in ISI indexed conference proceedings)
- Pi.2.** Marie Curie Intra-European Fellowship, FP6-2005-Mobility-5 (EIF), proiect nr. 041452. *Non-linear analysis of dynamic interactions between brain areas (NADIBA)*, finanțat de Comisia Europeană. 2007-2008 (12 luni). (58.478 Euro) (5 publicații ISI, dintre care 1 publicație în curs de publicare, 1 publicație trimisă, și 3 publicații în pregătire, la sfârșitul grantului)  
Marie Curie Intra-European Fellowship, FP6-2005-Mobility-5 (EIF), proposal number 041452. Project title *Non-linear analysis of dynamic interactions between brain areas (NADIBA)*, supported by The European Commission. 2007-2008 (12 months). (58.478 Euro) (5 impact factor manuscripts/publications reported when finalizing the grant, as following: 1 paper in press, 1 submitted, 3 manuscripts)  
[http://cordis.europa.eu/projects/rcn/83692\\_en.html](http://cordis.europa.eu/projects/rcn/83692_en.html)
- Pi.3.** Fulbright Senior Research Award, grant number 370, titlu proiect *EEG Feature Extraction for Motor Imagery*, finanțat de Fulbright Commission. 2006 (3 luni). (9300 USD) (2 publicații în pregătire la sfârșitul grantului, dintre care 1 publicație în volumul unei conferințe internaționale și 1 publicație într-o revistă națională)  
Fulbright Senior Research Award, grant number 370, proiect *EEG Feature Extraction for Motor Imagery*, supported by The Fulbright Commission. 2006 (3 months). (9300 USD) (2 publications reported when finalizing the grant: 1 paper in a proceeding of an international conference and 1 paper in a national journal)
- Pi.4.** Research project 436 RUM 113/29/0-1, project title *Fetal ECG extraction from abdominal recordings: evaluation of the Event-Synchronous-Canceller approach*, finanțat de German Research Foundation – Deutsche Forschungsgemeinschaft. 2006 (3 luni). (16.501,12 Euro) (2 publicații în pregătire la sfârșitul grantului, dintre care 1 publicație pentru o revistă ISI și 1 publicație în volumul unei conferințe ISI)  
Research project 436 RUM 113/29/0-1, project *Fetal ECG extraction from abdominal recordings: evaluation of the Event-Synchronous-Canceller approach*, supported by German Research Foundation – Deutsche Forschungsgemeinschaft. 2006 (3 months). (16.501,12 Euro) (2 manuscripts reported when finalizing the grant: 1 impact factor manuscript and 1 manuscript for an ISI indexed conference)
- Pi.5.** Fellowship 048.031.2003.005, *Detection and Analysis of Diaphragmatic EMG Signals in Adults and*

*Neonates*, finanțat de Netherlands Organisation for Scientific Research, la Technical University of Eindhoven. Proiectul a fost derulat în cooperare cu Máxima Medisch Centrum - Veldhoven și Philips - Eindhoven. 2004-2005 (8 luni). (8.300 Euro) (3 publicații în pregătire la sfârșitul grantului, dintre care 1 publicație în volumul unei conferințe ISI și 2 publicații în volumele unor conferințe internaționale peer-reviewed)

Fellowship 048.031.2003.005, *Detection and Analysis of Diaphragmatic EMG Signals in Adults and Neonates*, supported by Netherlands Organization for Scientific Research, at Technical University of Eindhoven. The project was developed with the support of Máxima Medisch Centrum - Veldhoven, and Philips - Eindhoven. 2004-2005 (8 months). (8.300 Euro) (3 manuscripts reported when finalizing the grant: 1 manuscript for an ISI indexed conference and 2 manuscripts for peer-reviewed international conference proceedings).

<http://www.nwo.nl/en/research-and-results/research-projects/01/1900121601.html>

**Pi.6.** Grant postdoctoral DAAD (Deutscher Akademischer Austausch Dienst - German Academic Exchange Service) nr. A/03/28397 la University of the German Armed Forces Munich, Germania, în colaborare cu ASKLEPIOS Medical Centre of Intensive and Respiration Medicine in Gauting -Munich, Germania. 2003-2004 (10 luni) (10.630 Euro) (1 manuscris ISI în pregătire la sfârșitul grantului)

DAAD postdoctoral grant (Deutscher Akademischer Austausch Dienst - German Academic Exchange Service) no. A/03/28397 at University of the German Armed Forces Munich, Germany, in cooperation with ASKLEPIOS Medical Centre of Intensive and Respiration Medicine in Gauting -Munich, Germany. 2003-2004 (10 months) (10.630 Euro) (1 impact factor manuscript reported when finalizing the grant).

**F** – Alte lucrări de cercetare – dezvoltare. (Other research-development activities.)

## COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E) (Unpublished works)

**E** – Lucrări prezentate la diferite seminarii/expoziții, conferințe, etc. (papers presented at different seminar/expositions, conferences, etc)

**E.1.** Prezentare invitată în cadrul workshop-ului „*Analysis of interactions between brain regions*“, organizat de grupul Bernstein, Dornburg Castle, Germany, February 12, 2009: "***Methodological challenges and limitations in the extraction of the effective brain connectivity***"

Invited presentation at the workshop „*Analysis of interactions between brain regions*“, organized by the Bernstein Group Germany, at, Dornburg Castle (Germany, February 12, 2009): "***Methodological challenges and limitations in the extraction of the effective brain connectivity***"

**E.2.** Prezentare invitată în cadrul ROMMEDICA 2012, 24-27 aprilie 2012, București, Romania: "Advances and challenges in fetal monitoring.

Invited presentation at ROMMEDICA 2012, April 24-27, 2012, Bucharest, Romania: "***Advances and challenges in fetal monitoring***"