

Publication List

ALEXANDRU GACSÁDI

Professor, PhD

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A. List of relevant papers (10 papers)

1. I. Buciu, **A. Gacsádi**, *Directional features for automatic tumor classification of mammogram images*, Biomedical Signal Processing and Control Volume 6, Issue 4, pp. 370-378, October 2011.
2. **A. Gacsádi**, P. Szolgay, *Variational Computing Based Segmentation Methods for Medical Imaging by using CNN*, Proceedings of the International Workshop on Cellular Neural Nanoscale and their Applications, Towards Megaprocessor Computing, pp. 418-423, Berkeley, California, USA, February 3-5, 2010.
3. L. Țepelea, **A. Gacsádi**, I. Gavriluț, V. Tiponuț, *A CNN Based Correlation Algorithm to Assist Visually Impaired Persons*, IEEE Proceedings of the International Symposium on Signals Circuits and Systems, pp.169-172, Iasi, Romania, June 30-July 1, 2011.
4. Z. Kincses, Zs. Vörösházi, Z. Nagy, P. Szolgay, T. Laviniu, **A. Gacsádi**, *Investigation of area and speed trade-offs in FPGA implementation of an image correlation algorithm*, Proceedings of the International Workshop on Cellular Nanoscale Networks and their Applications, pp.1-5, Turin, Italy, August 29-31, 2012.
5. **A. Gacsádi**, C. Grava, O. Straciuc, I. Gavriluț, *PDE-Based Medical Images Denoising Using Cellular Neural Networks*, IEEE Proceedings of the International Symposium on Signals Circuits and Systems, Vol. 2, pp.397-400, Iasi, Romania July 9-10, 2009.
6. **A. Gacsádi**, C. Grava , V. Tiponuț , P. Szolgay, *A CNN Implementation of the Horn & Schunck Motion Estimation Method*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, pp. 120-124, Istanbul, Turkey, August 28-30, 2006.
7. I. Gavriluț, **A. Gacsádi**, L. Țepelea, V. Tiponuț, *Motion planning for two mobile robots in an environment with obstacles by using cellular neural networks*, Proceedings of the IEEE International Symposium on Signals, Circuits and Systems, pp. 801-804, Iasi, Romania, July 14-15, 2005.
8. **A. Gacsádi**, P. Szolgay, *Image mage inpainting methods by using cellular neural networks*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, pp. 198-201, Hsinchu, Taiwan, 2005.
9. **A. Gacsádi**, C. Grava, A. Grava, *Medical image enhancement by using cellular neural networks*, Proceedings of the IEEE International Workshop on Computing in Cardiology, pp. 821-824, Lyon, France, September 25-28, 2005.
10. **A. Gacsádi**, T. Maghiar, V. Tiponuț, *A CNN path planning for a mobile robot in an environment with obstacles*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, pp. 188-194, Frankfurt/Main, Germany, July, 22-24, 2002.

B. PhD Thesis

Alexandru Gacsádi, Ph.D. Thesis in Electronics and Telecommunications, Magna Cum Laude, "Contributions to adaptive control of robots by using cellular neural networks for processing the visual information", "Politehnica" University of Timisoara, Romania 164 pag., 2001.

C. Books and Book Chapters, Teaching Material and Works**I. Books and Book Chapters**

1. I. Gavriluț, **A. Gacsádi**, L. Tepelea, *Informatică aplicată în electronică: teorie și aplicații*, Editura Universității din Oradea, ISBN 978-606-10-1629-7, 139 pag., 2015.
2. R. Dogaru, I. Dogaru, **A. Gacsádi**, I. Gavriluț, *Structura și dinamica rețelelor dinamice complexe. Rețele neliniare celulare*, Editura Matrixrom, ISBN 978-973-755-947-0, 174 pag., 2013.
3. V. Tîponuț, I. Gavriluț, **A. Gacsádi**, *Roboți mobili autonomi - Conducere cu rețele neuronale artificiale*, Editura Politehnica din Timișoara, ISBN 978-606-554-167-2, 286 pag., 2010.
4. **A. Gacsádi**, V. Tîponuț, *Sisteme de achiziții de date*, Editura Universității din Oradea, ISBN 973-613-868-2, 178 pag., 2005.
5. **A. Gacsádi**, V. Tîponuț, *Rețele neuronale celulare. Aplicații*, Editura Universității din Oradea, ISBN 973-613-144-0, 189 pag., 2002.
6. **A. Gacsádi**, *Bazele televiziunii*, Editura Universității din Oradea, ISBN 973-613-145-9, 176 pag., 2002.

II. Teaching Materials and Works

1. **A. Gacsádi**, I. Gavriluț, *Bazele televiziunii*, îndrumător de laborator, Editura Universității din Oradea, ISBN 978-973-759-657-4, 106 pag., 2008.
2. I. Gavriluț, T. Barabás, **A. Gacsádi**, *Bazele roboticii*, îndrumător de laborator, Editura Universității din Oradea, ISBN (10) 973-759-214-X, 92 pag., 2006.
3. N.D. Trip, **A. Gacsádi**, D. Scurtu, *Electronică industrială*, îndrumător de laborator, Editura Universității din Oradea, ISBN 973-613-756-2, 66 pag., 2005.
4. **A. Gacsádi**, *Sisteme de achiziție a datelor*, îndrumător de laborator, Editura Universității din Oradea, ISBN 973-613-100-9, 70 pag., 2002.
5. **A. Gacsádi**, *Bazele televiziunii*, îndrumător de laborator, Universitatea din Oradea, 88 pag., 1999.
6. K. Bondor, C. Gordan, G. Creț, **A. Gacsádi**, C. Lar, T. Pordea, *Dispozitive și circuite electronice*, îndrumător de laborator, Universitatea din Oradea, 121 pag., 1997.

D. Journals or Proceedings Papers**I. ISI Journals or ISI Proceedings Papers**

1. I. Buciu, **A. Gacsádi**, *Biometrics Systems and Technologies: A survey*, International Journal. of Computers, Communications & Control, Publisher Agora University Editing House CCC Publications, Vol. 11, No. 3, pp. 315-330, June, 2016, ISSN:1841-9836, E-ISSN:1841-9844.
2. I. Gavriluț, L. Tepelea, **A. Gacsádi**, *Path Planning based on Intermediate Targets using Cellular Neural Networks*, 13th International Conference on Engineering of Modern Electric Systems (EMES), pp.1-4, 11-12 June, 2015, Oradea, Romania, ISBN:978-1-4799-7649-2, DOI:10.1109/EMES.2015.7158452.
3. L. Tepelea, V. Tîponuț, P. Szolgay, **A. Gacsádi**, *Multicore Portable System for Assisting Visually Impaired People*, 14th International Workshop on Cellular Nanoscale Networks and their Applications, pp. 1-2, University of Notre Dame, USA, July 29-31, 2014, ISBN:978-1-4799-6007-1, ISSN:2165-0179, DOI:10.1109/CNNA.2014.6888646.
4. Z. Kincses, Zs. Vörösházi, Z. Nagy, P. Szolgay, T. Laviniu, **A. Gacsádi**, *Investigation of area and speed trade-offs in FPGA implementation of an image correlation algorithm*, Proceedings of 13th International Workshop on Cellular Nanoscale Networks and their Applications, pp.1-5, August 29-31, 2012, Turin, Italy, ISBN:978-1-4673-0289-0, ISSN:2165-0179, DOI:10.1109/CNNA.2012.6331455.
5. I. Buciu, **A. Gacsádi**, *Directional features for automatic tumor classification of mammogram images*, Biomedical Signal Processing and Control Volume 6, Issue 4, pp.370-378, ISSN:1746-8094, October 2011, doi:10.1016/j.bspc.2010.10.
6. I. Buciu, **A. Gacsádi**, *Spatiotemporal Facial Features Encoding for Facial Expression Analysis in Image Sequences*, IEEE Proceedings of the International Symposium on Signals Circuits and Systems (ISSCS 2011), pp. 161-164, June 30 2011-July 1, 2011, Iasi, Romania, ISBN:978-1-4577-0201-3, DOI:10.1109/ISSCS.2011.5978684.
7. C. Grava, **A. Gacsádi**, I. Buciu, *A Homogeneous Algorithm for Motion Estimation and Compensation by Using Cellular Neural Networks*, International Journal. of Computers, Communications & Control,

- Publisher Agora University Editing House CCC Publications, Vol. V, No. 5, pp. 719-726, 2010, ISSN:1841-9836, E-ISSN:1841-9844.
8. I. Buciu, **A. Gacsádi**, *Gabor Wavelet Based Features for Medical Image Analysis and Classification*, IEEE International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL 2009), pp. 8-11, November 24-27, 2009, Bratislava, Slovakia, ISBN:978-1-4244-4640-7.
 9. **A. Gacsádi**, P. Szolgay, *Variational Computing Based Images Denoising Methods by using Cellular Neural Networks*, Proceedings of the European Conference on Circuit Theory and Design (ECCTD 2009), pp. 85-88, August 23-27, 2009, Antalya Turkey, ISBN:978-1-4244-3895-2, DOI:10.1109/ECCTD.2009.5274972.
 10. **A. Gacsádi**, C. Grava, O. Straciuc, I. Gavriluț, *PDE-Based Medical Images Denoising Using Cellular Neural Networks*, IEEE Proceedings of the International Symposium on Signals Circuits and Systems (ISSCS 2009), Vol. 2, pp. 397-400, July 9-10, 2009, Iasi, Romania, ISBN:978-1-4244-3784-9, DOI:10.1109/ISSCS.2009.5206128.
 11. I. Gavriluț, V. Tîponuț, **A. Gacsádi**, *Mobile Robot Navigation based on CNN Images Processing – An Experimental Setup*, Proceedings of the WSEAS International Conference on Systems, pp. 220-225, July 22-24, 2009, Rodos Island, Greece, ISBN:978-960-474-097-0, ISSN 1790-2769.
 12. **A. Gacsádi**, V. Tîponuț, E. Gergely, I. Gavriluț, *Variational Based Image Enhancement Method by using Cellular Neural Networks*, Proceedings of the WSEAS International Conference on Systems, pp. 396-401, July 22-24, 2009, Rodos Island, Greece, ISBN:978-960-474-097-0, ISSN:1790-2769.
 13. I. Gavriluț, V. Tîponuț, **A. Gacsádi**, L. Țepelea, *Wall-following Method for an Autonomous Mobile Robot using Two IR Sensors*, New Aspects of Systems, Proceedings of the WSEAS International Conference on Systems, pp.205-209, July 22-24, Heraklion, Crete Island, Greece, 2008, ISBN:978-960-6766-83-1, ISSN:1790-2769.
 14. I. Gavriluț, V. Tîponuț, **A. Gacsádi**, C. Grava, *CNN Processing Techniques for Multi-robot Coordination*, Proceedings of International Symposium on Signals, Circuits and Systems, (ISSCS 2007), Vol. 1, pp.269-272, July 12-13, 2007, Iași, Romania, ISBN: 978-1-4244-0968-6, DOI:10.1109/ISSCS.2007.4292703.
 15. C. Grava, **A. Gacsádi**, C. Gordan, A. M. Grava, I. Gavriluț, *Applications of the Iterated Conditional Modes Algorithm for Motion Estimation in Medical Image Sequences*, Proceedings of International Symposium on Signals, Circuits and Systems, (ISSCS 2007), Vol. 1, pp. 373-376, July 12-13, 2007, Iași, Romania, ISBN:978-1-4244-0968-6, DOI:10.1109/ISSCS.2007.4292740.
 16. I. Gavriluț, V. Tîponuț, **A. Gacsádi**, *An Integrated Environment for Mobile Robot Navigation based on CNN Images Processing*, Proceedings of the 11-th WSEAS International Conference on Systems, pp.81-86, Agios Nikolaos, Crete Island, Greece, July 23-25, 2007, ISBN:978-960-8457-90-4, ISSN:1790-5117.
 17. I. Gavriluț, **A. Gacsádi**, C. Grava, V. Tîponuț, *Vision based algorithm for path planning of a mobile robot by using cellular neural networks*, Proceedings of the IEEE International Conference on Automation, Quality&Testing, Robotics (AQTR 2006) pp. 306-311, May 25-28, 2006, Cluj-Napoca, Romania, ISBN:1-4244-0360-X, DOI:10.1109/AQTR.2006.254650.
 18. I. Gavriluț, V. Tîponuț, **A. Gacsádi**, *Path Planning of Mobile Robots by Using Cellular Neural Networks*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2006), pp.108-113, August 28-30, Istanbul, Turkey, 2006, ISBN: 978-1-4244-0639-5, DOI:10.1109/CNNA.2006.341613.
 19. **A. Gacsádi**, C. Grava, V. Tîponuț, P. Szolgay, *A CNN Implementation of the Horn & Schunck Motion Estimation Method*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2006), pp. 120-124, August 28-30, Istanbul, Turkey, 2006, ISBN:978-1-4244-0639-5, DOI:10.1109/CNNA.2006.341615.
 20. **A. Gacsádi**, C. Grava, A. Grava, *Medical image enhancement by using cellular neural networks*, Proceedings of the IEEE International Workshop on Computing in Cardiology, pp. 821-824, September 25-28, 2005 Lyon, France, 2005, ISBN:0-7803-9337-6, ISSN:0276-6574, DOI:10.1109/CIC.2005.1588231.
 21. C. Grava, V. Buzuloiu, **A. Gacsádi**, A. Grava, *Mean field annealing for motion estimation in medical image sequences*, Proceedings of the IEEE International Symposium on Signals, Circuits and Systems (ISSCS 2005), Vol. I, pp. 35-38, July 14-15, 2005, Iași, Romania, ISBN:0-7803-9029-6, DOI:10.1109/ISSCS.2005.1509844.
 22. I. Gavriluț, **A. Gacsádi**, L. Țepelea, V. Tîponuț, *Motion planning for two mobile robots in an environment with obstacles by using cellular neural networks*, Proceedings of the IEEE International Symposium on Signals, Circuits and Systems (ISSCS 2005), pp. 801-804, July 14-15, Iași, Romania, 2005, ISBN:0-7803-9029-6, DOI:10.1109/ISSCS.2005.1511362.
 23. C. Gordan., **A. Gacsádi**, C. Grava, R. Reiz, *Using Wavelet Transform for the Ridges Extraction of a Polynomial Frequency Modulated Signal Covered with a Zero-Mean Gaussian Noise*, Proceedings of the International Conference on Computer, Communication and Control Technologies (CCCT'03), pp. 37-40, July 27-30, 2003, Orlando, Florida, USA, ISBN:980-6560-01-9.

24. C. Gordan., **A. Gacsádi**, C. Grava, R. Reiz, *Using Mathematical Morphology Elements for the Ridges Extraction of a Polynomial FM Signal Covered by a Low-Pass Filtered Gaussian Noise*, Proceedings of the 7th World Multiconference on Systemics, Cybernetics and Informatics, pp.84-87, July 31-August 02, 2003, Orlando, Florida, USA, ISBN:980-6560-05-1.
25. **A. Gacsádi**, T. Maghiar, V. Tiponut, *A CNN path planning for a mobile robot in an environment with obstacles*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, (CNNA 2002), pp. 188-194, July, 22-24, Frankfurt/Main, Germany, 2002, ISBN:981-238-121-X.
26. **A. Gacsádi**, P. Szolgay, *An analogic CNN algorithm for following continuously moving objects*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, (CNNA 2000), pp. 99-104, May 23-25, Catania, Italy, 2000, ISBN:0-7803-6344-2.
27. L. Țepelea, **A. Gacsádi**, I. Gavriluț, V. Tiponut, *A CNN Based Correlation Algorithm to Assist Visually Impaired Persons*, IEEE Proceedings of the International Symposium on Signals Circuits and Systems (ISSCS 2011), pp.169-172, June 30, 2011-July 1, 2011, Iasi, Romania, ISBN:978-1-4577-0201-3, DOI:10.1109/ISSCS.2011.5978686.
28. V. Tiponut, **A. Gacsádi**, I. Gavriluț, *Applications of Artificial Neural Networks in mobile robots navigation*, Proceedings of the 9-th WSEAS International Conference on Automation and Information, Book Series: Recent Advances in Electrical Engineering, pp. 236-241, 2008, ISBN:978-960-6766-77-0.

II. Journals or Proceedings Papers - Other International Databases

1. **A. Gacsádi**, P. Szolgay L. Țepelea, R. Reiz, I. Gavriluț, *Scalar Parameters Optimization in PDE Based Medical Image Denoising by using Cellular Wave Computing*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp. 25-30, Vol. 9, Number 2, October, 2016, ISSN:1844-6035. Scopus
2. L. Țepelea, I. Gavriluț, V. Tiponut, P. Szolgay, **A. Gacsádi**, *OCR application on smartphone for visually impaired people*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp. 153-156, Vol. 7, Issue 1, 2014, ISSN:1844-6035. Scopus
3. L. Țepelea, I. Gavriluț, **A. Gacsádi**, *Exploration algorithm for a mobile robot based on two infrared sensors*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp. 255-258, Vol.5, Issue 1, 2012, ISSN:1844-6035. Scopus
4. **A. Gacsádi**, L. Țepelea, I. Gavriluț, O. Straciuc, *Energy Based Medical Imaging Segmentation Methods by using Cellular Neural Networks*, Proceedings of the WSEAS International Conference on Systems, Recent Researches in System Science, pp.190-195, July 14-16, 2011, 2011, Corfu Island, Greece, ISSN:1792-4235, ISBN:978-1-61804-023-7. Scopus
5. I. Gavriluț, L. Țepelea, **A. Gacsádi**, *CNN Processing Techniques for Image-Based Path Planning of a Mobile Robot*, Proceedings of the WSEAS International Conference on Systems, Recent Researches in System Science, pp.259-263, July 14-16, 2011, Corfu Island, Greece, ISSN:1792-4235, ISBN:978-1-61804-023-7. Scopus
6. I. Buciu, **A. Gacsádi**, *Noise Suppression Methods for Low Quality Images with Application to Face Recognition*, IEEE Proceedings of the International Symposium (ELMAR 2011), pp.21-24, September 14-16, 2011, Zadar, Croatia, ISSN:1334-2630, E-ISBN:978-953-7044-12-1, Print-ISBN:978-1-61284-949-2. IEEE Xplore Digital Library, Scopus
7. I. Gavriluț, L. Țepelea, **A. Gacsádi**, *A CNN Based Nonlinear Wave Metric for CT Images*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.29-32, Vol.4, Issue 2, 2011, ISSN:1844-6035. Scopus
8. **A. Gacsádi**, *Variational Computing Based Image Inpainting Methods by Using Cellular Neural Networks*, Proceedings of the WSEAS International Conference on Automation & Information (ICAI'10), pp.104-109, June 13-15, 2010, Iași, Romania, ISBN 978-960-474-193-9, ISSN 1790-5117. Scopus
9. I. M. Neamțu, **A. Gacsádi**, *Formalism in Coding the Genetic Information*, Proceedings of the WSEAS International Conference on Automation & Information (ICAI'10), pp.98-103, June 13-15, 2010, Iași, Romania, ISBN:978-960-474-193-9, ISSN:1790-5117. Scopus
10. E. I. Gergely, L. Coroiu, **A. Gacsádi**, *Design of Safe PLC Programs by Using Petri Nets and Formal Methods*, Proceedings of the WSEAS International Conference on Automation & Information (ICAI'10), pp.86-91, June 13-15, 2010, Iași, Romania, ISBN 978-960-474-193-9, ISSN 1790-5117. Scopus
11. I. Buciu, **A. Gacsádi**, C. Grava, *Vision Based Approaches for Driver Assistance Systems*, Proceedings of the WSEAS International Conference on Automation & Information (ICAI'10), pp.92-97, June 13-15, 2010, Iași, Romania, ISBN:978-960-474-193-9, ISSN:1790-5117. Scopus

12. L. Țepelea, R.Reiz, I. Gavriluț, **A. Gacsádi**, *A CNN Computing Algorithm for Image Correlation*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.217-220, Vol.3, Issue 2, 2010, ISSN:1844-6035. Scopus
13. **A. Gacsádi**, P. Szolgay, *Variational Computing Based Segmentation Methods for Medical Imaging by using CNN*, Proceedings of the 12th International Workshop on Cellular Neural Nanoscale and their Applications (CNNA), Towards Megaprocessor Computing, pp. 418-423, February 3-5, 2010, Berkeley, California, USA, Print ISBN:978-1-4244-6679-5 DOI:10.1109/CNNA.2010.5430256. IEEE Xplore Digital Library, Scopus
14. I. Gavriluț, **A. Gacsádi**, C. Grava, O. Straciuc, L. Țepelea, *Analysis methods of noise extraction from CT images*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.146-149, Vol.2, No.2, 2009, ISSN:1844-6035. Scopus
15. I. Gavriluț, V. Tiponuț, **A. Gacsádi**, *Mobile Robot Navigation based on CNN Images Processing – An Experimental Setup*, WSEAS Transactions on Systems, Issue 8, Volume 8, pp. 947-956, 2009. ISSN: 1109-2777 948 Scopus
16. I. Buciu, **A. Gacsádi**, *Non-negative Dimensionality Reduction for Mammogram Classification*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.121-124, Vol.2, Issue 1, 2009, ISSN:1844-6035. Scopus
17. C. Grava, **A. Gacsádi**, I. Gavriluț, *Arterial elasticity maps obtained by using basic block-matching methods*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.151-154, Vol.2, Issue 1, 2009, ISSN:1844-6035. Scopus
18. I. Gavriluț, **A. Gacsádi**, *Multi-robot coordination by using Cellular Neural Networks*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.190-193, Vol.1, Issue 1, 2009, ISSN:1844-6035. Scopus
19. I. Gavriluț, V. Tiponuț, **A. Gacsádi**, L. Țepelea, *Obstacles avoidance method for an autonomous mobile robot using two IR sensors*, Journal of Electrical and Electronics Engineering, University of Oradea Publisher, pp.194-197, Vol.1, 2008, Issue 1, ISSN:1844-6035. Scopus
20. V. Tiponuț, I. Gavriluț, C. Căleanu, **A. Gacsádi**, *Development of a neural network guided mobile robot collectivity*, WSEAS Transactions on Circuits and Systems, pp. 805-812, Vol. 5, Issue 6, June 2006. ISSN:1109-2734. Scopus
21. **A. Gacsádi**, P. Szolgay, *Image mage inpainting methods by using cellular neural networks*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2005), pp.198-201, 2005, Hsinchu, Taiwan, ISBN:0780391853. Scopus
22. C. Grava, **A. Gacsádi**, C. Gordan, T. Maghiar, A. Grava, R. Reiz, *3D Interpolation using Cellular Neural Networks*, Proceedings of Progress in Electromagnetics Research Symposium, (PIERS), pp. 341-344, Pisa, Italy, 2004, ISBN:88-8492-268-2. Scopus
23. L. Țepelea, I. Gavriluț, **A. Gacsádi**, *Edge Based CNN Image Segmentation Methods for Medical Imaging*, Journal of Computer Science and Control Systems, University of Oradea Publisher, pp.95-98, Vol. 3, Issue 2, 2010, ISSN:1844-6043. DOAJ
24. I. M. Neamțu, **A. Gacsádi**, *Cryptology as Mathematical Model*, Journal of Computer Science and Control Systems, University of Oradea Publisher, pp.147-150, Vol. 3, Issue 1, 2010, ISSN :1844-6043. DOAJ

III. Other Journals or Proceedings Papers

1. L. Țepelea, I. Gavriluț, O. Neamțu, E. Gergely and **A. Gacsádi**, *A LabVIEW-Based Soundcard Interface for E-Laboratory*, Journal International Review of Applied Sciences and Engineering, pp. 137–142, Vol. 2, No. 2, Dec. 2011, Publisher Akadémiai Kiadó ISSN 2062-0810, DOI, 10.1556/IRASE.2.2011.2.10
2. L. Țepelea, I. Gavriluț, **A. Gacsádi**, V. Tiponuț, *Image-based motion planning for two mobile robots in an environment with obstacles by using cellular neural networks*, Journal International Review of Applied Sciences and Engineering, pp.45-50, Vol. 2, No. 1, Jun. 2011, Publisher Akadémiai Kiadó ISSN 2062-0810, DOI 10.1556/IRASE.2.2011.1.7.
3. L. Țepelea, R.Reiz, I. Gavriluț, **A. Gacsádi**, *A CNN based Algorithm for Medical Image Correlation*, Journal of Computer Science and Control Systems, University of Oradea Publisher, pp.69-72, Vol. 4, Issue 2, 2011, ISSN:1844-6043.
4. **A. Gacsádi**, P. Szolgay, *A variational method for image denoising*, by using cellular neural networks, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2004), ISBN 963-311-357-1, pp. 213-218, Budapest, Hungary, 2004.
5. **A. Gacsádi**, C. Grava, C. Gordan, T. Maghiar, A. Grava, R. Reiz, 2004, *Inter-Slice Interpolation based on Matching Information, using Cellular Neural Networks*, Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications (CNNA 2004), ISBN 963-311-357-1, pp. 417-422, Budapest, Hungary; 2004.

6. **A. Gacsádi**, P. Szolgay, *Adaptive image enhancement by using cellular neural networks*, Proceedings of the European Conference on Circuit Theory and Design, (ECCTD'03), ISBN 83-88309-951, Vol.I, pp.233-236, Cracow, Poland, 2003.
7. C. Grava, **A. Gacsádi**, C. Gordan, T. Maghiar, K.Bondor, *Motion compensation using cellular neural networks*, Proceedings of the European Conference on Circuit Theory and Design, (ECCTD'03), ISBN 83-88309-951, Vol. I, pp. I-397-I-400, Cracow, Poland, 2003
8. **A. Gacsádi**, P. Szolgay, *Interpolation of 2D signals using CNN*, Proceedings of the European Conference on Circuit Theory and Design, (ECCTD'01), ISBN951-22-5572-3, I, pp. 349-352, Espoo, Finland, 2001.
9. **A. Gacsádi**, *Path planning for a mobile robot based on CNN images processing*, 15th „Building Services, Mechanical and Building Industry Days”, International Conference, ISBN 978-963.473-315-7, pp.208-216, 15-16 October 2009, Debrecen, Hungary.
10. I. Gavriluț, V. Tiponuț, **A. Gacsádi**, L. Țepelea, *Obstacles Avoidance Method for an Autonomous Mobile Robot using Two IR Sensors*, Proceedings of the International Conference on Renewable Sources and Environmental Electro-Technologies (RSEE '08), pp. 194-197, ISSN 1454-9239, May 29-30, Oradea, 2008.
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E. Grants – projects, research contracts

I. International grants - projects obtained through competition

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2. HURO/0802/100, *Realization of Hungarian-Romanian R&D Laboratory for the Development of Major Projects in Polluted Terrain Cleaning*, MICROMODEL, 2011-2012, **A. Gacsádi** – project member.
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II. National grants - projects obtained through competition

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2. Grant CNCSIS A 473/2006-2007, *Utilizarea tehnologiei rețelelor neuronale celulare pentru navigația roboților mobili autonomi*, **A. Gacsádi** - project manager.
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6. Grant CNCSIS A 639/2005-2006-2007, *Mediu integrat pentru deplasarea asistată a persoanelor cu handicap vizual*, **A. Gacsádi** - project member.
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III. Research contracts

1. Contract de cercetare Nr. 2386/28.02.2005, *Senzor inteligent realizat cu microconvertorul ADuC 812*, executant Universitatea Oradea, beneficiar SC. Toner S.R.L. Oradea, A. Gacsádi - project manager.
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