Anexa.....

Curriculum vitae

Informaţii personale

Nume/Prenume	*Szilágyi, László*
Adresa	540068 Tg. Mureş, Str. Frantz Liszt Nr. 6-8, Ap. 2
Telefon	+40265264490 Mobil: +40747352560
E-mail	lalo@ms.sapientia.ro
Cetăţenia	ROU & HUN
Data şi locul naşterii	12.01.1975, Tg. Mureş
Funcţia şi locul de muncă (universitatea, facultatea, catedra)	**Conferenţiar, Universitatea Sapientia, Facultatea de Ştiinţe Tehnice şi Umane, Departamentul de Inginerie Electrică**

Educaţie şi formare

2009 Diplomă de doctor în inginerie electrică - Universitatea Tehnică şi Economică Budapesta
1998-2002 Doctorand în inginerie electrică şi tehnică de calcul - Universitatea Tehnică şi Economică Budapesta
1993-1998 Universitatea Petru Maior, Tg. Mureş, secţia automatică şi informatică industrială, diplomă de inginer

Experienţa profesională

2004 - Universitatea Sapientia, Facultatea de Ştiinţe Tehnice şi Umaniste, Tg. Mureş
2002-2004 Universitatea Tehnică Budapesta
2000-2001 Univesitatea Jyväskylä (Finlanda) - Samstock Oy, Jyväskylä (Finlanda)

Alte funcţii deţinute (nedidactice)

CSO (chief scientific officer) la CLARITON SRL, Ungaria

Limbi străine cunoscute

Engleză înalt/înalt
franceză, spaniolă, germană, finlandeză bază/ bază

Activitatea didactică (cursuri, seminarii, lucrări practice conduse)

Modelare şi simulare (curs, lucrări practice)
Prelucrarea imaginilor şi sisteme de recunoaştere a formelor (curs, lucrări practice)

Domeniul de cercetare

Prelucrarea imaginilor şi recunoaşterea formelor. Prelucrarea semnalelor. Bioinformatică. Inteligenţă artificială.

Membru în organizaţii ştiinţifice şi profesionale

IEEE – Institute of Electrical and Electronics Engineers
IAPR – International Association of Pattern Recognition
NJSZT – Neumann János Számítógép-tudományi Társaság

Membru în colective de redacţie

Modeling Decision in Artificial Intelligence (MDAI 2012, 2013, 2014) – PC member
IFAC Symposium on Biomedical Systems (IFAC BMS 2012) – PC member

Lista de lucrări în domeniul de studii universitare de licenţă .....*

Numele şi prenumele: Szilágyi László

A. Teza de doctorat.

Novel Image Processing Methods Based on Fuzzy Logic (Universitatea Tehnică şi Economică din Budapesta), 2008

B. Cărti publicate

B1. Cărţi (manuale, monografii, tratate, îndrumare etc.) publicate la edituri recunoscute în străinătate.

B2. Cărţi (manuale, monografii, tratate, îndrumare etc.) publicate în ţară, la edituri recunoscute CNCSIS.

Szilágyi L: Novel Image Processing Methods Based on Fuzzy Logic. Scientia Publishing House, Cluj-Napoca, 2009, ISBN: 978-973-1970-20-2, 162 pagini.

Benyó Z, Paláncz B, Szilágyi L: Insight into Computer Science with Maple. Scientia Publishing House, Cluj-Napoca, 2005, ISBN: 973-7953-56-8, 416 pagini.

B3. Cărţi (manuale, monografii, tratate, îndrumare etc.) publicate la alte edituri sau pe plan local.

B4. Cărţi (manuale, monografii, tratate, îndrumare etc.) publicate pe web.

B5. Capitole de cărţi publicate în străinătate

Szilágyi L, Varga ZsR, Szilágyi SM: Application of the fuzzy-possibilistic product partition in elliptic shell clustering. In: Torra V, Narukawa Y, et al (Eds.): Modeling Decisions in Artificial Intelligence, Springer, LNCS vol. 8825, pp. 158-169 (2014), ISBN: N/A yet

Szilágyi L, Szilágyi SM, Hirsbrunner B: A fast and memory-efficient hierarchical graph clustering algorithm. In: Editors Not Available Yet: Neural Information Processing, Springer, LNCS, accepted paper, 8 pages (2014)

Szilágyi L, Kovács L, Szilágyi SM: Synthetic test data generation for hierarchical graph clustering methods. In: Editors Not Available Yet: Neural Information Processing, Springer, LNCS, accepted paper, 8 pages (2014)

Szilágyi L, Szilágyi SM: Fast implementations of Markov clustering for protein sequence grouping. In: Torra V, Narukawa Y, Navarro-Arribas G, Megías D (Eds.): Modeling Decisions in Artificial Intelligence, Springer, LNCS vol. 8234, pp. 214-225 (2013), ISBN: 978-3-642-41549-4.

Szilágyi SM, Szilágyi L, Hirsbrunner B: Study of electric and mechanic properties of the implanted artificial cardiac tissue using a whole heart model. In: Ruiz-Schulcloper J, Sanniti di Baja G (Eds.): Progess in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 8259, pp. 230-237 (2013), ISBN: 978-3-642-41826-6.

Szilágyi L, Szilágyi SM, Iclănzan D, Szabó L: Efficient 3D Curve Skeleton Extraction from Large Objects. In: San Martín C, Kim SW (Eds.): Progess in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 7042, pp. 133-140 (2011), ISBN: 978-3-642-25084-2.

Szilágyi L, Iclănzan D, Crăciun L, Szilágyi SM: An efficient approach to intensity inhomogeneity compensation using c-means clustering models. In: San Martín C, Kim SW (Eds.): Progess in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 7042, pp. 312-319 (2011), ISBN: 978-3-642-25084-2.

Szilágyi L, Dobó-Nagy Cs, Benyó B: Identification of the root canal from dental micro-CT records. In: San Martín C, Kim SW (Eds.): Progess in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 7042, pp. 339-346 (2011), ISBN: 978-3-642-25084-2.

Haidegger T, Nagy M, Lehotsky Á, Szilágyi L: Digital imaging for the education of proper surgical hand disinfection. In: Fichtinger G, Martel AL, Peters TM (Eds.): Medical Image Computing and Computer-Assisted Intervention, Springer, LNCS vol. 6893, pp. 619-626 (2011), ISBN: 978-3-642-23625-9.

Szilágyi L: Fuzzy-Possibilistic Fuzzy Partition: a novel robust approach to c-means clustering. In: Torra V, Narukawa Y, Yin JP, Long J (Eds.): Modeling Decisions in Artificial Intelligence, Springer, LNCS vol. 6820, pp. 150-161 (2011), ISBN: 978-3-642-22588-8.

Szilágyi L, Szilágyi SM, Kiss Cs: A generalized approach to the suppressed fuzzy c-means algorithm. In: Torra V, Narukawa Y, Dumas M (Eds.): Modeling Decisions in Artificial Intelligence, Springer, LNCS vol. 6408, pp. 140-151 (2010), ISBN: 978-3-642-16291-6.

Szilágyi L, Szilágyi SM, Benyó Z: Analytical and numerical evaluation of the suppressed fuzzy c-means algorithm. In: Torra V, Narukawa Y (Eds.): Modeling Decisions in Artificial Intelligence, Springer, LNCS vol. 5285, pp. 146-157 (2008), ISBN: 978-3-540-88268-8.

Medvés L, Szilágyi L, Szilágyi SM: A modified Markov clustering approach for protein sequence clustering. In: Chetty M, Ngom A, Ahmad S (Eds.): Pattern Recognition in Bioinformatics, Springer, LNCS vol. 5265, pp. 110-120 (2008), ISBN: 978-3-540-88434-7.

Szilágyi L, Szilágyi SM, Benyó Z: A thorough analysis of the suppressed fuzzy c-means algorithm. In: Ruiz-Schulcloper J, Kropatsch WG (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 5197, pp. 203-210 (2008), ISBN: 978-3-540-85919-2.

Szilágyi L, Iclănzan D, Szilágyi SM, Dumitrescu D: GeCiM: A novel generalized approach to c-means clustering. In: Ruiz-Schulcloper J, Kropatsch WG (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 5197, pp. 235-242 (2008), ISBN: 978-3-540-85919-2.

Szilágyi SM, Görög LK, Szilágyi L, Luca CT, Cozma D, Ivanica G, Benyó Z: An enhanced accessory pathway localization method for efficient treatment of Wolff-Parkinson-White syndrome. In: Ruiz-Schulcloper J, Kropatsch WG (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 5197, pp. 269-276 (2008), ISBN: 978-3-540-85919-2.

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Szilágyi L, Szilágyi SM, Benyó Z: Fast and Robust Fuzzy C-Means Algorithms for Automated Brain MR Image Segmentation. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 578-586, ISBN: 978-1599048895 (2008).

Szilágyi SM, Szilágyi L, Benyó Z: Volumetric Analysis and Modeling of the Heart Using Active Appearance Model. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 1374-1382, ISBN: 978-1599048895 (2008).

Szilágyi SM, Szilágyi L, Frigy A, Görög LK, Benyó Z: Spatial Heart Simulation and Adaptive Wave Propagation. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 1253-1260, ISBN: 978-1599048895, (2008).

Szilágyi SM, Szilágyi L, Benyó Z: Echocardiographic Image Sequence Compression Based on Spatial Active Appearance Model. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 472-479, ISBN: 978-1599048895 (2008).

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Szilágyi SM, Szilágyi L, Luca CT, Cozma D, Ivanica G, Benyó Z: Modification of the Accessory Pathway Localization Method to Improve the Performance of WPW Syndrome Interventions. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 921-930, ISBN: 978-1599048895 (2008).

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Szilágyi SM, Szilágyi L, Benyó Z: Adaptive ECG compression using support vector machine. In: Rueda L, Mery D, Kittler J (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 4756, pp. 594-603 (2007), ISBN: 978-3-540-76724-4.

Szilágyi SM, Szilágyi L, Frigy A, Görög LK, Benyó Z: Unified neural network based pathologic event reconstruction using spatial heart model. In: Rueda L, Mery D, Kittler J (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 4756, pp. 851-860 (2007), ISBN: 978-3-540-76724-4.

Szilágyi SM, Szilágyi L, Benyó Z: Echocardiographic image sequence compression based on spatial active appearance model. In: Rueda L, Mery D, Kittler J (Eds.): Progress in Pattern Recognition, Image Analysis and Applications, Springer, LNCS vol. 4756, pp. 841-850 (2007), ISBN: 978-3-540-76724-4.

Szilágyi L, Szilágyi SM, Benyó Z: A modified fuzzy c-means algorithm for MR brain image segmentation. In: Kamel MS, Campilho AC (Eds.): Image Analysis and Recognition, Springer, LNCS vol. 4633, pp. 866-877 (2007), ISBN: 978-3-540-74258-6.

Szilágyi L, Szilágyi SM, Benyó Z: Efficient feature extraction for fast segmentation of MR brain images. In: Ersbøll BK, Pedersen KS (Eds.): Image Analysis, Springer, LNCS vol. 4522, pp. 611-620 (2007), ISBN: 978-3-540-73039-2.

Szilágyi SM, Szilágyi L, Benyó Z: Volumetric analysis of the heart using echocardiography. In: Sachse FB, Seemann G (Eds.): Functional Imaging and Modeling of the Heart, Springer, LNCS vol. 4466, pp. 81-90 (2007), ISBN: 978-3-540-72906-8.

Szilágyi L, Szilágyi SM, Benyó Z: A Modified Fuzzy C-Means Classifier for Fast Segmentation of MR Brain Images. In: Melín P, Castillo O, Ramírez EG, Kaczprzyk J, Pedrycz W (Eds.): Analysis and Design of Intelligent Systems Using Soft Computing Techniques, Springer, Advances in Soft Computing vol. 41, pp. 119-127 (2007), ISBN: 978-3-540-72431-5.

Szilágyi SM, Szilágyi L, Benyó Z: Spatial Heart Simulation and Analysis Using Unified Neural Network. In: Melín P, Castillo O, Ramírez EG, Kaczprzyk J, Pedrycz W (Eds.): Analysis and Design of Intelligent Systems Using Soft Computing Techniques, Springer, Advances in Soft Computing vol. 41, pp. 346-354 (2007), ISBN: 978-3-540-72431-5.

Szilágyi SM, Szilágyi L, Benyó Z: Support Vector Machine-Based ECG Compression. In: Melín P, Castillo O, Ramírez EG, Kaczprzyk J, Pedrycz W (Eds.): Analysis and Design of Intelligent Systems Using Soft Computing Techniques, Springer, Advances in Soft Computing vol. 41, pp. 737-745 (2007), ISBN: 978-3-540-72431-5.

B6. Capitole de cărţi publicate în ţară

C. Lucrări ştiinţifice publicate

C1. Lucrări ştiinţifice publicate în reviste cotate ISI

Szilágyi SM, Szilágyi L: A fast hierarchical clustering algorithm for large-scale protein sequence data sets. Computers in Biology and Medicine 48:94-101 (2014), IF: 1.475*

Szilágyi L, Szilágyi SM: Generalized suppression rules for the suppressed fuzzy c-means algorithm. Neurocomputing, 139:298-309 (2014), IF: 2.005*

Szilágyi L: Lessons to learn from a mistaken optimization. Pattern Recognition Letters, 36(1):29-35 (2014), ISSN: 0167-6855, IF: 1.062*

Szilágyi L, Haidegger T, Lehotsky Á, Nagy M, Csonka EA, Sun XY, Ooi KL, Fisher D: A large-scale assessment of hand hygiene quality and the effectiveness of the "WHO 6-steps". BMC Infectious Diseases, 13(249):1-10 (2013), ISSN: 1471-2334, IF: 2.56

Szilágyi L: Robust spherical shell clustering using fuzzy-possibilistic product partition. International Journal of Intelligent Systems, 28(6):524-539 (2013), ISSN: 1098-111X, IF: 1.411

Szilágyi L, Szilágyi SM, Benyó B: Efficient inhomogeneity compensation using fuzzy c-means clustering models. Computer Methods and Programs in Biomedicine, 108(1):80-89 (2012), ISSN: 0169-2607, IF: 1.555

Szilágyi SM, Szilágyi L, Benyó Z: A Patient Specific Electro-Mechanical Model of the Heart. Computer Methods and Programs in Biomedicine, 101(2):183-200 (2011), ISSN: 0169-2607, IF: 1.516

Szilágyi L, Szilágyi SM, Benyó B, Benyó Z: Intensity inhomogeneity compensation and segmentation of MR brain images using hybrid c-means clustering models. Biomedical Signal Processing and Control, 6(1):3-12 (2011), ISSN: 1746-8094, IF: 1.000

Szilágyi SM, Szilágyi L, Görög LK, Luca CT, Cozma D, Ivanica G, Benyó Z: An enhanced method for accessory pathway localization in case of Wolff-Parkinson-White syndrome. Acta Physiologica Hungarica 98(3):347-358 (2011), ISSN: 0231-424X, IF: 0.821

Szilágyi L, Medvés L, Szilágyi SM: A modified Markov clustering approach to unsupervised classification of protein sequences. Neurocomputing, 73(13-15):2332-2345 (2010), ISSN: 0925-2312, IF: 1.429

Szilágyi L, Szilágyi SM, Benyó Z: Analytical and numerical evaluation of the suppressed fuzzy c-means algorithm: a study on the competition in c-means clustering models. Soft Computing, 14(5):495-505, ISSN: 1432-7643, IF: 1.512

Szilágyi L, Benyó Z: Development of a virtual reality guided diagnostic tool based on magnetic resonance imaging. Acta Physiologica Hungarica 97(3):267-280 (2010), ISSN: 0231-424X, IF: 1.226

Szilágyi SM, Szilágyi L, Iclănzan D, Dávid L, Frigy A, Benyó Z: Intensity inhomogeneity correction and segmentation of magnetic resonance images using a multi-stage fuzzy clustering approach. Neural Network World, 19:513-528 (2009), ISSN: 1210-0552, IF: 0.475

C2. Lucrări ştiinţifice publicate în reviste indexate în baze de date internaţionale (indicaţi şi baza de date).

Szilágyi L, Szilágyi SM: An efficient Markov clustering approach to protein sequence grouping. Journal of Pattern Recognition & Image Processing (JPRIP) 4(1):40-49 (2013), ISSN: 2160-9454

Benyó B, Szilágyi L, Dobó-Nagy Cs: Center line detection from dental micro CT image sets. International Journal of Computer Assisted Radiology and Surgery 4:S196-S197 (2009), ISSN: 1861-6410 (SpringerLink)

Szilágyi L: Medical Image Processing Methods for the Development of a Virtual Endoscope. Periodica Polytechnica Ser. Electrical Engineering 50(1-2):69–78 (2006), ISSN 0324-6000. (Scopus)

C3. Lucrări ştiinţifice publicate în reviste din străinătate (altele decât cele menţionate anterior).

Kovács L, Benyó B, Török L, Reiss A, Szilágyi L, Fördős G: Járművezetők élettani jeleinek mérése, tárolása és továbbítása. A Jövő Járműve, 06(1-2):65–66 (2006).

Szilágyi SM, Frigy A, Görög LK, Szilágyi L, Benyó Z: A pitvar-kamrai járulékos nyalábok Arruda-féle lokalizációs módszerének érzékenységi analízise. ORKI Orvos- és Kórháztechnika 42(6):164–167 (2004), ISSN: 1585-7360.

Szilágyi L: EEG jelek kiértékelése, epilepsziás jelalakok lokalizálása wavelet transzformáció és neurális hálózatok alkalmazásával. ORKI Orvos- és Kórháztechnika 41(1):12–13 (2003), ISSN: 1585-7360.

Benyó Z, Benyó B, Szilágyi SM, Várady P, Szilágyi L: Research Activity of the Biomedical Engineering Laboratory at TU Budapest. Research News, 8–13 (1999).

C4. Lucrări ştiinţifice publicate în reviste din ţară, recunoscute CNCSIS (altele decât cele din baze de date internaţionale).

Szilágyi SM, Szilágyi L, Benyó Z: Unified Neural Network Based Adaptive ECG Signal Analysis and Compression. Scientific Bulletin of the Politechnica University of Timişoara, Transactions on Automatic Control and Computer Science 51(65):27–36 (2006), ISSN 1224-600X.

Szilágyi L: Virtual Brain Endoscopy Based on Magnetic Resonance Images. Scientific Bulletin of the Politechnica University of Timişoara, Transactions on Automatic Control and Computer Science 49(63):47–50 (2004), ISSN: 1224-600X.

C6. Lucrări ştiinţifice publicate în volumele manifestărilor ştiinţifice

Szilágyi L, Dénesi G, Szilágyi SM: Fast color reduction using approximative c-means clustering models. World Congress on Computational Intelligence, Beijing, paper no. 14174, pp. 1-8 (2014)

Szilágyi L, Szilágyi SM: Efficient Markov clustering algorithm for protein sequence grouping. 35th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Osaka, pp. 639-642 (2013), ISBN 978-1-4577-0214-3

Szilágyi SM, Szilágyi L, Enăchescu C: Hypoxia modeling using Luo-Rudy II cell model. Computers in Cardiology 39:885-888 (2012)

Szilágyi SM, Szilágyi L, Luca CT, Cozma D, Ivănică G, Enăchescu C: Spatial modeling of the Wolff-Parkinson-White syndrome induced ventricular fibrillation. Computers in Cardiology 39:753-756 (2012)

Szilágyi SM, Szilágyi L: Study of self maintaining spatial spiral waves in ventricular tissue. Computers in Cardiology 39:853-856 (2012)

Szilágyi SM, Szilágyi L, Enăchescu C: Hypoxia modeling in ventricular cells using Beeler-Reuter model. IFAC Symposium on Biological and Medical Systems pp. 426-431 (2012)

Benyó B, Szilágyi L, Németh Zs, Molnár CsG, Dobó-Nagy Cs: Identification of the root canal and its centreline from dental cone beam CT records. IFAC Symposium on Biological and Medical Systems pp. 1-5 (2012)

Nagy M, Szilágyi L, Lehotsky Á, Haidegger T, Benyó B: An image-guided tool to prevent hospital acquired infections. SPIE Medical Imaging, Orlando, paper no. 7962-142, pp. 1-6 (2011).

Ferenci T, Kovács L, Almássy Zs, Szilágyi L, Benyó B, Benyó Z: Differences in the laboratory parameters of obese and healthy Hungarian children and their use in automatic classification. 32nd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Buenos Aires, pp. 3883-3886 (2010), ISBN 978-1-4244-4123-5, ISSN 1557-170X

Szilágyi L, Lehotsky Á, Nagy M, Haidegger T, Benyó B, Benyó Z: Stery-Hand: a new device to support hand disinfection. 32nd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Buenos Aires, pp. 4756-4759 (2010), ISBN 978-1-4244-4123-5, ISSN 1557-170X

Nagy M, Haidegger T, Szilágyi L, Lehotsky Á, Kovács L, Benyó B: Imaging technology to prevent hospital acquired infections. 8th Student Science Conferece, Poland, pp. 451-456, ISSN 1732-0240 (2010).

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Szilágyi L, Szilágyi SM, Benyó Z: A Unified Approach to c-Means Clustering Models. IEEE Conference on Fuzzy Systems, Jeju Island (S. Korea), pp. 456-461 (2009), ISBN 978-1-4244-3597-5

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Szilágyi L, Szilágyi SM, Benyó B, Benyó Z: Application of Hybrid c-Means Clustering Models in Inhomogeneity Compensation and MR Brain Image Segmentation, IFAC Symposium on Modeling and Control in Biological and Medical Systems, Aalborg (Denmark), pp. 204-209 (2009)

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Szilágyi L, Szilágyi SM, Benyó B, Benyó Z: Application of hybrid c-means clustering models in inhomogeneity compensation and MR brain image segmentation. SACI 2009 Timişoara, pp. 105-110, ISBN 978-1-4244-4478-6 (2009)

Szilágyi SM, Szilágyi L, Iclănzan D, Benyó Z: A weighted patient specific electromechanical model of the heart. SACI 2009 Timişoara, pp. 111-116, ISBN 978-1-4244-4478-6 (2009)

Benyó B, Szilágyi L, Haidegger T, Kovács L, Dobó-Nagy Cs: Detection of the Root Canal's Centerline from Dental Micro-CT Records, 31st Annual International Conference of IEEE Engineering in Medicine and Biology Society, Minneapolis, pp. 3517-3520 (2009), ISBN 978-1-4244-3296-7

Benyó B, Szilágyi L, Dobó-Nagy Cs: Medial Axis Detection from Dental Micro-CT Records, 31st World Congress on Medical Physics and Biomedical Engineering (WC2009), München, IFMBE Proceedings 25/IV:1688-1691 (2009), ISSN 1727-1983.

Szilágyi L, Szilágyi SM, Dávid L, Benyó Z: Inhomogeneity compensation for MR brain image segmentation using a multi-stage FCM-based approach. 30th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Vancouver 3896–3899, ISBN 978-1-4244-1814-5, ISSN 1557-170X, (2008)

Csernáth G, Szilágyi L, Szilágyi SM, Fördős G, Benyó Z: A Novel ECG Telemetry and Monitoring System Based on Z-Wave Communication. 30th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Vancouver 2361-2364, ISBN 978-1-4244-1814-5, ISSN 1557-170X, (2008)

Szilágyi L, Dávid L, Szilágyi SM, Benyó B, Benyó Z: Improved Intensity Inhomogeneity Correction Techniques in MR Brain Image Segmentation. 17th IFAC World Congress, Seoul, 9625-9630, ISBN 978-1-1234-7890-2 (2008).

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Szilágyi L, Szilágyi SM, Benyó Z: Automated medical image processing methods for virtual endoscopy. World Congress on Medical Physics and Biomedical Engineering (WC2006), Seoul. IFMBE Proceedings 14:2267–2270 (2007), ISSN 1727-1983.

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G. Contracte de cercetare (menţionaţi calitatea de director sau membru)

UEFISCDI PD 28/05.08.2010 (director): *Metode avansate de segmentare si registrare a imaginilor, cu aplicatii in sisteme medicale*, 2010/08-2012/08, 325000 RON.

OTKA PD109321 (director): *Modern robust fuzzy c-means clustering techniques* (2012-2015, $1{,}96\times10^7$ HUF)

Proiecte Sapientia IPC

2004-2005 (membru) Sistem de vizualizare 3D pe baza imaginilor medicale
2005-2006 (membru) Determinarea optimală a turbulenţelor inimii bazate pe înregistrări Holter ECG
2006-2007 (director) Metode de segmentare fuzzy cu aplicaţii în prelucrarea imaginilor medicale
2007-2008 (membru) Modelarea robusta a unor celule din inima
2008-2009 (membru) Studiul algoritmilor hibrizi de clasificare nesupraveghetă cu aplicaţii în prelucrarea imaginilor

INCO Copernicus 960161 (membru): *Distributed Communication System in Biomedical Applications* (1997–1999, 65000 ECU),

FKFP 0301/1999 (membru): *Medical communication system and dummy patient* (1999-2001, 5,3mil HUF),

OTKA T029830 (membru): *Event recognition for application in technical and non-technical diagnosis* (1999-2002, 7,75 mil HUF),

OTKA T042990 (membru): *System theory aproach of the information of the biological signals for diagnostics* (2003-2005, 12 mil HUF).

OTKA F046726 (membru): *Safety critical information systems for system diagnostics* (2004-2007, 5,752 mil HUF)

OTKA T069055 (membru): *Development of new measurement and control methods, and their bioinformatical applications, for early diagnosis and optimal treatment of metabolic diseases* (2007-2009, 10,785 mil HUF)

I. Premii, distincţii.

2012 EIB Social Innovation Tournament, 1st Prize (Luxembourg)
2012 Best Of Biotech - LISA VR Medtech Award (Vienna, Austria)

2011 Innovact Campus Award, 1st Prize (Reims, France)
2011 ICPIC Innovation Academy Award, 1st Prize (Geneva, Switzerland)
2011 Outstanding Student Humanitarian Prize at IEEE Presidents' Change the World Competition

2010 János Bolyai Fellowship Award (Hungarian Academy of Sciences)

J. Citări

335 citări independente.

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