

SZILÁGYI Sándor Miklós

Producția științifică

TOTAL PUNCTE	295,56
Categoria A	234,00
Categoria B	36,00
Categoria C	25,56

Lucrări categoria A

$$25 \times 8 + 5 \times (8/2) + 3 \times (8/3) + 3 \times (8/4) = 234 \text{ puncte}$$

Nr. curent	Lucrare	Nr. autori	Justificare	Punctaj
A.01.	Szilágyi L, Szilágyi SM: Generalization rules for the suppressed fuzzy c-means algorithm. Neurocomputing, 139:298-309 (2014), ISSN: 0925-2312, IF: 2.083	2	Poziția 234, lista jurnale 2013	8
A.02.	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	3	Poziția 234, lista jurnale 2013	8
A.03.	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	3	Poziția 260, lista jurnale 2013	8
A.04.	Szilágyi L, Szilágyi SM, Hirsbrunner B: A fast and memory-efficient hierarchical graph clustering algorithm. In: Kiong LC, et al (Eds): Neural Information Processing, Springer, LNCS, vol. 8834, pp. 247-254 (2014)	3	ICONIP, poziția 217, lista conferințe 2013	8
A.05.	Szilágyi L, Kovács L, Szilágyi SM: Synthetic test data generation for hierarchical graph clustering methods. In: Kiong LC, et al (Eds): Neural Information Processing, Springer, LNCS, vol. 8835, pp. 303-310 (2014)	3	ICONIP, poziția 217, lista conferințe 2013	8
A.06.	Szilágyi L, Nagy LL, Szilágyi SM: Recent advances in improving the memory efficiency of the TRIBE MCL algorithm. In: Arik S, et al (Eds): Neural Information Processing, Springer, LNCS, vol. 9490, pp. 28-35 (2015)	3	ICONIP, poziția 217, lista conferințe 2013	8
A.07.	Szilágyi L, Dénesi G, Szilágyi SM: Fast color reduction using approximative c-means clustering models. IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2014, Beijing), pp. 194-201 (2014), ISBN: 978-1-4799-2073-0	3	FUZZ-IEEE, poziția 133, lista conferințe 2013	8

A.08.	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	2	EMBC, poziția 53, lista conferințe 2013	8
A.09.	Szilágyi SM: A Cellular energetic extension applied to the Luo-Rudy II ventricular cell model. Computers in Cardiology 39:857-860 (2012)	1	CINC, poziția 75, lista conferințe 2013	8
A.10.	Szilágyi SM, Szilágyi L, Hirsbrunner B: Modeling the Influence of High Fibroblast Level on Arrhythmia Development and Obstructed Depolarization Spread. Computers in Cardiology 40:45-48 (2013)	3	CINC, poziția 75, lista conferințe 2013	8
A.11.	Szilágyi SM, Szilágyi L, Hirsbrunner B: Simulation of Arrhythmia using Adaptive Spatio-temporal Resolution. Computers in Cardiology 40:365-368 (2013)	3	CINC, poziția 75, lista conferințe 2013	8
A.12.	Szilágyi SM, Szilágyi L, Enăchescu C: Hypoxia modeling using Luo-Rudy II cell model. Computers in Cardiology 39:885-888 (2012)	3	CINC, poziția 75, lista conferințe 2013	8
A.13.	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)	6	CINC, poziția 75, lista conferințe 2013	8/4=2
A.14.	Szilágyi SM, Szilágyi L: Study of self maintaining spatial spiral waves in ventricular tissue. Computers in Cardiology 39:853-856 (2012)	2	CINC, poziția 75, lista conferințe 2013	8
A.15.	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	3	FUZZ-IEEE, poziția 133, lista conferințe 2013	8
A.16.	Szilágyi L, Iclănzan D, Szilágyi SM, Dumitrescu D, Hirsbrunner B: A Generalized C-Means Clustering Model Using Optimized Via Evolutionary Computation. IEEE Conference on Fuzzy Systems, Jeju Island (S. Korea), pp. 451-455 (2009), ISBN 978-1-4244-3597-5	5	FUZZ-IEEE, poziția 133, lista conferințe 2013	8/3=2,666
A.17.	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)	4	EMBC, poziția 53, lista conferințe 2013	8/2=4
A.18.	Csernáth G, Szilágyi L, Szilágyi SM, Fördös 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)	5	EMBC, poziția 53, lista conferințe 2013	8/3=2,666
A.19.	Szilágyi L, Szilágyi SM, Fördös G, Benyó Z: Quick ECG analysis for on-line Holter monitoring systems. 28th Annual International Conference of IEEE Engineering in Medicine and Biology Society, New York 1678–1681 (2006), ISBN 1-4244-0033-3.	4	EMBC, poziția 53, lista conferințe 2013	8/2=4
A.20.	Szilágyi SM, Szilágyi L, Benyó Z: Sensibility Analysis of the Arruda Localization Method and Modifications in Left Ventricle Analysis. 28th Annual International Conference of IEEE Engineering in Medicine and Biology Society, New York 3998–4001 (2006), ISBN 1-4244-0033-3.	3	EMBC, poziția 53, lista conferințe 2013	8
A.21.	Szilágyi SM, Szilágyi L, Frigy A, Görög LK, László SE, Benyó Z: 3D heart simulation and recognition of various events. 27th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Shanghai 4038–4041 (2005), ISBN 0-7803-8741-4.	6	EMBC, poziția 53, lista conferințe 2013	8/4=2

A.22.	Szilágyi L, Szilágyi SM, Frigy A, László SE, Görög LK, Benyó Z: Quick QRS complex detection for on-line ECG and Holter systems. 27th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Shanghai 3906–3908 (2005), ISBN 0-7803-8741-4.	6	EMBC, poziția 53, lista conferințe 2013	8/4=2
A.23.	Szilágyi L, Benyó Z, Szilágyi SM: Brain image segmentation for virtual endoscopy. 26th Annual International Conference of IEEE Engineering in Medicine and Biology Society, San Francisco 1730–1732 (2004), ISBN: 0-7803-8439-3.	3	EMBC, poziția 53, lista conferințe 2013	8
A.24.	Szilágyi SM, Benyó Z, Dávid L, Szilágyi L: Adaptive wavelet-transform-based ECG waveforms detection. 25th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Cancún (Mexico) 2412–2415 (2003), ISBN: 0-7803-7789-3.	4	EMBC, poziția 53, lista conferințe 2013	8/2=4
A.25.	Szilágyi L, Benyó Z, Szilágyi SM, Adam HS: MR brain image segmentation using an enhanced fuzzy c-means algorithm. 25th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Cancún (Mexico) 724–726 (2003), ISBN: 0-7803-7789-3.	4	EMBC, poziția 53, lista conferințe 2013	8/2=4
A.26.	Benyó Z, Szilágyi SM, Várady P, Benyó B: Biomedical engineering education in Hungary. 20th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Hong Kong 3359–3360 (1998), ISBN: 0-7803-5167-3.	4	EMBC, poziția 53, lista conferințe 2013	8/2=4
A.27.	Szilágyi L, Benyó Z, Szilágyi SM: A new method for epileptic waveform recognition using wavelet decomposition and artificial neural networks. 24th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Houston 2025–2026 (2002), ISBN 0-7803-7612-9	3	EMBC, poziția 53, lista conferințe 2013	8
A.28.	Szilágyi SM, Benyó Z, Szilágyi L: Comparison of malfunction diagnosis sensibility for direct and inverse ECG signal processing methods. 24th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Houston 244–245 (2002), ISBN 0-7803-7612-9	3	EMBC, poziția 53, lista conferințe 2013	8
A.29.	Szilágyi L, Benyó Z, Szilágyi SM, Szlávecz Á, Nagy L: On-line QRS complex detection using wavelet filtering. 23rd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Istanbul 1872–1874 (2001), ISBN: 0-7803-7211-5.	5	EMBC, poziția 53, lista conferințe 2013	8/3=2,666
A.30.	Szilágyi SM, Szilágyi L: Efficient ECG signal compression using adaptive heart model. 23rd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Istanbul 2125–2128 (2001), ISBN: 0-7803-7211-5.	2	EMBC, poziția 53, lista conferințe 2013	8
A.31.	Szilágyi SM, Szilágyi L: Wavelet transform and neural-network-based adaptive filtering for QRS detection. 22nd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Chicago 1267–1270 (2000), ISBN: 0-7803-6465-1.	2	EMBC, poziția 53, lista conferințe 2013	8
A.32.	Szilágyi SM: The limits of heart-model-based computerized ECG diagnosis. 22nd Annual International Conference of IEEE Engineering in Medicine and Biology Society, Chicago 1913–1916 (2000), ISBN: 0-7803-6465-1.	1	EMBC, poziția 53, lista conferințe 2013	8
A.33.	Szilágyi SM: Non-linear adaptive prediction based ECG signal filtering. 21st Annual International Conference of IEEE Engineering in Medicine and Biology Society, Atlanta 296 (1999), ISBN: 0-7803-5674-8.	1	EMBC, poziția 53, lista conferințe 2013	8

A.34.	Szilágyi SM: Event recognition, separation and classification from ECG recordings. 20th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Hong Kong 236–239 (1998), ISBN: 0-7803-5167-3.	1	EMBC, poziția 53, lista conferințe 2013	8
A.35.	Szilágyi SM, Szilágyi L, Dávid L: ECG signal compression using adaptive prediction. 19th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Chicago 101–104 (1997).	3	EMBC, poziția 53, lista conferințe 2013	8
A.36.	Szilágyi SM, Szilágyi L, Dávid L: Comparison between neural-network-based adaptive filtering and wavelet transform for ECG characteristic points detection. 19th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Chicago 272–274 (1997).	3	EMBC, poziția 53, lista conferințe 2013	8

Lucrări categoria B

$8 \times 4 + 2 \times (4/2) = 36$ puncte

Nr. curent	Lucrare	Nr. autori	Justificare	Punctaj
B.01.	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), ISSN: 0010-4825 IF: 1.475	2	Poziția 326, lista jurnale 2013	4
B.02.	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	3	Poziția 315, lista jurnale 2013	4
B.03.	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	3	Poziția 315, lista jurnale 2013	4
B.04.	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	4	Poziția 299, lista jurnale 2013	4/2=2
B.05.	Szilágyi L, Varga ZsR, Szilágyi SM: Application of the fuzzy-possibilistic product partition in elliptic shell clustering. In: Torra V, Narukawa Y, Endo Y (Eds.): Modeling Decisions for Artificial Intelligence, Springer, LNCS vol. 8825, pp. 158-169 (2014), ISBN: 978-3-319-12053-9	3	MDAI, poziția 310, lista conferințe 2013	4
B.06.	Szilágyi L, Szilágyi SM: Fast implementations of Markov clustering for protein sequence grouping. In: Torra V, Narukawa Y, Navarro-Arribas G, Megias D (Eds.): Modeling Decisions for Artificial Intelligence, Springer, LNCS vol. 8234, pp. 214-225 (2013), ISBN: 978-3-642-41549-4.	2	MDAI, poziția 310, lista conferințe 2013	4
B.07.	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 for Artificial Intelligence, Springer, LNCS vol. 6408, pp. 140-151 (2010), ISBN: 978-3-642-16291-6.	3	MDAI, poziția 310, lista conferințe 2013	4

B.08.	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 for Artificial Intelligence, Springer, LNCS vol. 5285, pp. 146-157 (2008), ISBN: 978-3-540-88268-8.	3	MDAI, poziția 310, lista conferințe 2013	4
B.09.	Szilágyi L, Szilágyi SM, Dávid L, Benyó Z: Multi-stage FCM-based intensity inhomogeneity correction for MR brain image segmentation. In: Kurková V, Neruda R, Koutník J (Eds.): Artificial Neural Networks, Springer, LNCS vol. 5164, pp. 527-536 (2008), ISBN: 978-3-540-85237-7.	4	ICANN, poziția 250, lista conferințe 2013	4/2=2
B.10.	Szilágyi SM, Szilágyi L, Benyó Z: Spatial visualization of the heart in case of ectopic beats and fibrillation. In: Mery D, Rueda L (Eds.): Advances in Image and Video Technology, Springer, LNCS vol. 4872, pp. 548-561 (2007), ISBN: 978-3-540-77128-9.	3	PSIVT, poziția 428, lista conferințe 2013	4

Lucrări categoria C

$$9 \times 2 + 6 \times (2/2) + 1 \times (2/3) + 1 \times (2/4) + 1 \times (2/5) = 25,56 \text{ puncte}$$

Nr. curent	Lucrare	Nr. autori	Justificare	Punctaj
C.01.	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	6	Poziția 977, lista jurnale 2013	2/4=0,50
C.02.	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.): Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 8259, pp. 230-237 (2013), ISBN: 978-3-642-41826-6.	3	CIARP, poziția 250, lista conferințe 2013	2
C.03.	Szilágyi L, Szilágyi SM, Iclănzan D, Szabó L: Efficient 3D Curve Skeleton Extraction from Large Objects. In: San Martín C, Kim SW (Eds.): Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 7042, pp. 133-140 (2011), ISBN: 978-3-642-25084-2.	4	CIARP, poziția 250, lista conferințe 2013	2/2=1
C.04.	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.): Progress in Pattern Recognition, Image Analysis, Computer Vision, and Applications, Springer, LNCS vol. 7042, pp. 312-319 (2011), ISBN: 978-3-642-25084-2.	4	CIARP, poziția 250, lista conferințe 2013	2/2=1
C.05.	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.	3	LNCS	2

C.06.	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.	3	CIARP, poziția 250, lista conferințe 2013	2
C.07.	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.	4	CIARP, poziția 250, lista conferințe 2013	2/2=1
C.08.	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.	7	CIARP, poziția 250, lista conferințe 2013	2/5=0,4
C.09.	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.	3	CIARP, poziția 250, lista conferințe 2013	2
C.10.	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.	5	CIARP, poziția 250, lista conferințe 2013	2/3=0,66
C.11.	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.	3	CIARP, poziția 250, lista conferințe 2013	2
C.12.	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.	3	LNCS	2
C.13.	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.	3	LNCS	2
C.14.	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.	3	LNCS	2
C.15.	Szilágyi L, Dénesi G, Kovács L, Szilágyi SM: Comparison of various improved-partition fuzzy c-means clustering algorithms in fast color reduction. 12 th IEEE International Symposium on Intelligent Systems and Informatics (SISY 2014, Subotica), pp. 197-202 (2014), ISBN: 978-1-4799-5996-9	4	SISY, poziția 624, lista conferințe 2013	2/2=1
C.16.	Szilágyi SM, Enăchescu C: Vascular system reconstruction from MR images using active appearance model. SACI 2012 Timișoara, pp. 163-168, ISBN 978-1-4673-1012-3 (2012)	2	SACI, poziția 601, lista conferințe 2013	2
C.17.	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 Timișoara, pp. 105-110, ISBN 978-1-4244-4478-6 (2009)	4	SACI, poziția 601, lista conferințe 2013	2/2=1
C.18.	Szilágyi SM, Szilágyi L, Iclănzan D, Benyó Z: A weighted patient specific electromechanical model of the heart. SACI 2009 Timișoara, pp. 111-116, ISBN 978-1-4244-4478-6 (2009)	4	SACI, poziția 601, lista conferințe 2013	2/2=1