

## SZILÁGYI Sándor Miklós

## Performanța academică

<b>TOTAL PUNCTE</b>	<b>95,08</b>
Cărți și capitole publicate	18,58
Editor proceedings la conferințe	1,00
Director sau membru al unui grant/proiect/contract/program de cercetare național/internațional	16,00
Membru în comitetul științific (de program) al unor conferințe, simpozioane, workshop-uri	0,50
Profesor/researcher asociat/visiting la o universitate din top	18,00
Consolidarea de echipe de cercetare	35,00
Premii și alte merite	6,00

<b>Cărți și capitole publicate</b>				<b>18,58</b>
<b>Nr.</b>	<b>Lucrare</b>	<b>Autori</b>	<b>Categoria</b>	<b>Puncte</b>
1	Szilágyi SM: Dynamic modeling of the human heart. Scientia Publishing House, Cluj Napoca (2009), 200p, ISBN: 978-973-1970-11-0.	1	Carte Editura nelistată	2
2	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, Kaczprzek 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.	3	Capitol Editura cat. B (Springer)	4
3	Szilágyi SM, Szilágyi L, Benyó Z: Spatial Heart Simulation and Analysis Using Unified Neural Network. In: Melín P, Castillo O, Ramírez EG, Kaczprzek 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.	3	Capitol Editura cat. B (Springer)	4

4	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.	3	Capitol Editura cat. B (Springer)	4
5	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)	3	Capitol Editura nelistată	1
6	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)	3	Capitol Editura nelistată	1
7	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)	5	Capitol Editura nelistată	0,33
8	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)	3	Capitol Editura nelistată	1
9	Szilágyi SM, Szilágyi L, Benyó Z: Spatial Heart Simulation and Analysis Using Unified Neural Network. In: Wickramasinghe N, Geisler E (eds.): Encyclopaedia of Healthcare Information Systems, IDEA Group Publishing: Hershey-New York, 1261-1268, ISBN: 978-1599048895 (2008)	3	Capitol Editura nelistată	1
10	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)	6	Capitol Editura nelistată	0,25

Editor proceedings la conferințe				1
Nr.	Lucrare	Autori	Categoria	Puncte
1	Benyó Z, Szilágyi SM (Eds.): Conference on the Latest Results in Information Technology (Budapest), 1998, ISBN 963-421-548-3.	2	D	1

Director sau membru al unui grant/proiect/contract/program de cercetare național/internațional				16
Nr.	Grant	Funcție	Categoria	Puncte
1	2011–2014: Călire simulată distribuită, bazată pe modele. Finanțat de Sapiientia IPC	Membru	< 50000 EUR	1
2	2009–2011: Skeletonizarea eficientă a obiectelor spațiale deformabile. Finanțat de Sapiientia IPC	Director	< 50000 EUR	2
3	2008-2009: Studiul spațial al geometriei ventriculului drept. Finanțat de Sapiientia IPC	Director	< 50000 EUR	2
4	2007-2008: Modelarea robustă a unor celule din inimă. Finanțat de Sapiientia IPC	Membru	< 50000 EUR	1
5	2005-2006: Determinarea optimă a turbulențelor inimii bazate pe înregistrări Holter ECG. . Finanțat de Sapiientia IPC	Membru	< 50000 EUR	1
6	2004-2005: Sistem de vizualizare 3D pe baza imaginilor medicale. . Finanțat de Sapiientia IPC	Membru	< 50000 EUR	1
7	2003-2004: Sistem de supraveghere a pacienților. Finanțat de Sapiientia IPC	Director	< 50000 EUR	2
8	2002–2003: Producerea multistraturilor TiAN cu componente nanocristaline prin pulverizare. Finanțat de Sapiientia IPC	Membru	< 50000 EUR	1
9	2007-2010: Development of new measurement and control methods, and their bioinformatical applications, for early diagnosis and optimal treatment of metabolic diseases. Finanțat de OTKA Ungaria, K69055 (40000 EUR)	Membru	< 50000 EUR	1
10	1999-2002: Event recognition for application in technical and non-technical diagnosis. Finanțat de OTKA Ungaria, T29830 (31000 EUR)	Membru	< 50000 EUR	1

11	1999-2001: Medical communication system and dummy patient. Finanțat de FKFP Ungaria, 0301/1999 (20000 EUR)	Membru	< 50000 EUR	1
12	1997-1999: Distributed communication system in biomedical applications. Finanțat de EU, INCO Copernicus 960161 (65000 ECU)	Membru	50000-99999 EUR	2

Membru în comitetul științific (de program) al unor conferințe, simpozioane, workshop-uri				0,50
Nr.	Conferința	Categoria	Puncte	
1	International Conference On Recent Achievements in Mechatronics, Automation, Computer Science and Robotics, MACRO 2011, Tîrgu Mureș, 8-9 aprilie 2011	D	0,50	

Profesor/researcher asociat/visiting la o universitate din top					18
Nr.	Universitate	Rolul	Perioada	Categoria	Puncte
1	Budapest University of Technology and Economics, Hungary	Researcher asociat (postdoc)	2012/08 – 2012/08 = 1 lună	Loc 395 (top 500)	2
2	University of Fribourg, Switzerland	Researcher asociat (postdoc)	2013/04 – 2014/03 2015/11 – 2015/12 = 14 luni	Loc 515 (top 1000)	14
3	University of Debrecen, Hungary	Researcher asociat	2014/07 – 2014/08 = 2 luni	Loc 591 (top 1000)	2

Consolidare de echipe de cercetare					35
Nr.	Echipa	Membri	Ani	Rezultate	Puncte
1	Procesarea semnalelor ECG	<b>Szilágyi SM</b> Moldován IZ, Szilágyi L	1996	<p><b>Szilágyi SM</b>, Moldován IZ, Szilágyi L: New possibilities in the medical sciences in the field of ECG signal processing (Hungarian). I. Fialat Műszakiak Tudományos Ülészaka (FMTÜ, Cluj), pp. 1-4, 1996, ISBN 973-98092-2-7.</p> <p><b>Szilágyi SM</b>, Szilágyi L: Adaptive estimator for ECG signal compression. Conference on the Latest Results in Information Technology (Budapest), pp. 50-53, 1997, ISBN 963-421-545-9.</p>	3
2	Modelarea sistemelor utilizând inteligență artificială	<b>Szilágyi SM</b> Máthé Zs, Görög LK, Komáromi L, László SE	2004	<p>Máthé Zs, Görög LK, Komáromi L, <b>Szilágyi SM</b>: Mesterséges intelligencia társasjátékokban, 14<sup>th</sup> International Conference in Computer Science and Education, Cluj, 2004, ISBN 973860978-X.</p> <p>Görög LK, Máthé Zs, Komáromi L, <b>Szilágyi SM</b>: A mesterséges intelligencia labirintusa, IX. Fialat Műszakiak Tudományos Ülészaka, Cluj, 2004., p. 171-174, ISBN 973-8231-33-7.</p> <p>Görög LK, Komáromi L, Máthé Zs, <b>Szilágyi SM</b>: Az örült labirintus, IX. Fialat Műszakiak Tudományos Ülészaka, Cluj, 2004, p. 174-178, ISBN 973-8231-33-7.</p> <p>László SE, <b>Szilágyi SM</b>: 3D Modellezés Lehetőségei, IX. Fialat Műszakiak Tudományos Ülészaka, Cluj, 2004., p. 147-150, ISBN 973-8231-33-7.</p>	5

3	Modelarea sistemelor biomedicale	<b>Szilágyi SM</b> Szász ZE, László SE, Görög LK, Máthé Zs, Creț O	2005 <p>Szász ZE, <b>Szilágyi SM</b>: MRI Image Analysis with Genetic Algorithms, 15th International Conference in Computer Science and Education, Cluj, 2005, pp. 210-219, ISBN 973-7840-08-1.</p> <p><b>Szilágyi SM</b>, László SE, Görög LK: Complex Heart Diagnosis Methods, 15th International Conference in Computer Science and Education, Cluj, 2005, pp. 192-201, ISBN 9737840-08-1.</p> <p>László SE, <b>Szilágyi SM</b>, Görög LK: ECG Signal Measurement and Rhythm Analysis, 15th International Conference in Computer Science and Education, Cluj, 2005, pp. 202-209, ISBN 973-7840-08-1.</p> <p>László SE, <b>Szilágyi SM</b>: Mobil EKG mérés és ritmusanalízis, X. Fiala Műszaki Tudományos Ülésszaka, Cluj, 2005, p. 193-196, ISBN 973-8231-44-2.</p> <p>Görög LK, <b>Szilágyi SM</b>: Using reading Techniques in Complex Software-developing Systems, 15th International Conference in Computer Science and Education, Cluj, 2005, pp. 153-159, ISBN 973-7840-08-1.</p> <p>Máthé Zs, Görög LK, Creț O, László SE, <b>Szilágyi SM</b>: Iterative ECG Signal Filtering for Better QRS Recognition, EMBEC'05, 3rd European Medical &amp; Biological Engineering Conference, Prague, IFMBE Proc. vol 11., paper#2260, pp. 1-6, 2005, ISSN 1727-1983.</p> <p>Görög LK, Máthé Zs, Creț O, <b>Szilágyi SM</b>: Sensibility Analysis of the Arruda Localization Method, EMBEC'05, 3rd European Medical &amp; Biological Engineering Conference, Prague, IFMBE Proc. vol 11., paper#2309, pp. 1-5, 2005, ISSN 1727-1983.</p>	6
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4	Criptografie	<b>Szilágyi SM</b> Máthé Zs, Stan J	2005	<p>Máthé Zs, Stan J, <b>Szilágyi SM</b>: O posibilă aplicație a criptografiei cu cheie publică, I. (lb. maghiară), Firka, 2005-06(5), 182-186.</p> <p>Máthé Zs, Stan J, <b>Szilágyi SM</b>: O posibilă aplicație a criptografiei cu cheie publică, II. (lb. maghiară), Firka, 2005-06(6), 223-227.</p>	3
5	Skeletonizare	<b>Szilágyi SM</b> Szilágyi L, Iclănzan D, Szabó L	2009-11	<p>Szilágyi L, <b>Szilágyi SM</b>, Iclănzan D, Szabó L: Efficient skeleton extraction from large 3-D objects. In: Domokos J, Bakó L, Szilágyi L, Forgó Z (eds): Proc. International Conference on Recent Achievements in Mechatronics, Automation, Computer Science and Robotics (MACRO 2011, Tîrgu Mureș), pp. 75-86, 2011, ISBN 978-973-1970-54-7.</p> <p>Szilágyi L, <b>Szilágyi SM</b>, Iclănzan D, Szabó L: Efficient 3D curve skeleton extraction from large objects. Ibero-American Congress on Pattern Recognition (CIARP 2011, Pucón, Chile). 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.</p> <p>Grant IPC Sapientia 2009–2011: Skeletonizarea eficienta a obiectelor spatial deformabile</p>	12

6	Bioinformatică	<b>Szilágyi SM</b> Szilágyi L Kovács L Nagy LL	2014-15 2014-15 2014 2015	<p><b>Szilágyi SM</b>, Szilágyi L: A fast hierarchical clustering algorithm for large-scale protein sequence data sets. <i>Computers in Biology and Medicine</i> 48:94–101 (2014), ISSN 0010-4825, IF: 1.240</p> <p>Szilágyi L, Kovács L, <b>Szilágyi SM</b>: Synthetic test data generation for hierarchical graph clustering methods. In: Loo CK, Yap KS, Wong KW, Teoh A, Huang K (Eds.): <i>Neural Information Processing</i>, Springer International Publishing Switzerland, Lecture Notes in Computer Science vol. 8835, pp. 303-310 (2014), ISBN: 978-3-319-12639-5</p> <p>Szilágyi L, Nagy LL, <b>Szilágyi SM</b>: Recent advances in improving the memory efficiency of the TRIBE MCL algorithm. In: Sabri Arik et al (Eds.): <i>Neural Information Processing</i>, Springer International Publishing Switzerland, Lecture Notes in Computer Science vol. 9490, pp. 28-35 (2015), ISBN: 978-3-319-26534-6</p>	6
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Premii și alte merite	6
<b>Premiul</b>	
2015 – “Top 10 Paper of Year 2014” publicat în <i>Computers in Biology and Medicine</i> (împreună cu coautorul: Szilágyi L)	
2011 – János Bolyai Fellowship Award (Hungarian Academy of Sciences)	
2005 – Diplomă de onoare – Societatea Muzeului Ardelean	
1991 – Premiul Hegyi Lajos – Fundația Hegyi Lajos	