Lista de lucrări în domeniul de studii universitare de licență informatică

NUMELE ŞI PRENUMELE: KÁTAI ZOLTÁN

I. LISTA PUBLICAȚIILOR RELEVANTE [Categoria publicației: A/B/C/D, conform cu http://informatica-universitaria.ro]

1. **[C] Kátai, Z.**, Dynamic programming strategies on the decision tree hidden behind the optimising problems, *Informatics in Education*, 6, 2007, 1, 115–138.

2. **[A] Kátai, Z.**, Juhász, K., Adorjáni, A., K., On the role of senses in education, *Computers & Education*, 51, 2008, 4, 1707–1717.

3. **[B] Kátai, Z.**, Toth, L.,Technologically and artistically enhanced multi-sensory computer programming education, *Teaching and teacher education,* 26, 2010, 2, 244–251.

4. **[C] Kátai, Z.**, Multi-sensory method for teaching-learning recursion, *Computer Applications in Engineering Education*, 19, 2011, 2, 234–243.

5. **[C] Kátai, Z.**, Solving Markov Decision Processes by d-Graph Algorithms, *Control and Cybernetics*, 41, 2012, 3, 577–593.

6. **[A] Kátai, Z.**, The challenge of promoting algorithmic thinking of both sciences and humanities oriented learners, *Journal of Computer Assisted Learning,* 2014. (doi>10.1111/jcal.12070)
7. **[A] Kátai, Z.**, Intercultural Computer Science Education, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 183–188. (doi>10.1145/2591708.2591744)
8. **[A] Kátai, Z.**, Selective Hiding for Improved Algorithmic Visualization, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 33–38. (doi>10.1145/2591708.2591734)
9. **[A] Kátai, Z.**, ALGO-RYTHMICS: science and art without ethnic borders, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 329–329. (doi>10.1145/2591708.2602684) (poster)
10. **[A] Kátai, Z.**, Algorithmic Thinking for ALL: a motivational perspective, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 353–353. (doi>10.1145/2591708.2602669)

(poster)

II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

A. Teza de doctorat

1. *Módszerek és eszközök az informatikaoktatás hatékonyságának növelésére (Metode şi instrumente didactice pentru eficientizarea procesului de predare-învăţare-evaluare a informaticii)*, Dr. Nyakóné Dr. Juhász Katalin, Universitatea Debrețin, Ungaria, „Summa cum laude".

B. Cărti publicate

B1. Cărți (manuale, monografii, tratate, îndrumare etc.) publicate în străinătate

1. **Kátai Zoltán**, *C: nyelv és programozás (C: limbaj şi programare)*, Universitatea Debrețin, Ungaria, 2008, 270 pagini.

2. Nyakóné Juhász Katalin, Terdik György, Biró Piroska, **Kátai Zoltán**, Bevezetés az informatikába (Întroducere în informatică), Universitatea Debrețin, Ungaria, 2011.

   http://www.tankonyvtar.hu/hu/tartalom/tamop425/0046_bevezetes_az_informatikaba/index.html

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

1. **Kátai Zoltán**, *Programozás C nyelven (Programare în limbajul C)*, Editura Scientia, Cluj-Napoca, 2004, 240 pagini, ISBN 973-7953-27-4.

2. **Kátai Zoltán**, *Algoritmusok felülnézetből (Algoritmi – o privire de ansamblu)*, Editura Scientia, Cluj-Napoca, 2007, 251 pagini, ISBN 978-973-7953-74-2.

3. **Kátai Zoltán**, *Gráfelméleti algoritmusok (Algoritmica grafurilor)*, Editura Scientia, Cluj-Napoca, 2008, 248 pagini, ISBN 978-973-7953-95-7.

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

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

B5. Capitole de cărți publicate în străinătate

B6. Capitole de cărți publicate în țară

C. Lucrări ştiințifice publicate

C1. Lucrări ştiinţifice publicate în reviste cotate ISI [Categoria publicaţiei: A/B/C/ D, conform cu http://informatica-universitaria.ro]

1. **[A] Kátai, Z.**, Juhász, K., Adorjáni, A., K., On the role of senses in education, *Computers & Education*, 51, 2008, 4, 1707–1717.

2. **[B] Kátai, Z.**, Toth, L.,Technologically and artistically enhanced multi-sensory computer programming education, *Teaching and teacher education,* 26, 2010, 2, 244–251.

3. **[C] Kátai, Z.**, Multi-sensory method for teaching-learning recursion, *Computer Applications in Engineering Education*, 19, 2011, 2, 234–243.

4. **[C] Kátai, Z.**, Solving Markov Decision Processes by d-Graph Algorithms, *Control and Cybernetics*, 41, 2012, 3, 577–593.

5. **[A] Kátai, Z.**, The challenge of promoting algorithmic thinking of both sciences and humanities oriented learners, *Journal of Computer Assisted Learning,* 2014. (doi>10.1111/jcal.12070)

C2. Lucrări ştiinţifice publicate în reviste indexate în baze de date internaţionale (indicaţi şi baza de date) [Categoria publicaţiei: A/B/C/D, conform cu http://informatica-universitaria.ro]

1. **Kátai, Z.**, "Upperview" algorithm design in teaching computer science in high schools, *Teaching Mathematics and Computer Science*, 3, 2005, 2, 221–241. [Zentralblatt, MathDi, 2006b.00869]

2. **Kátai, Z.**, Dynamic programming and d-graphs, *Studia Universitatis Babes-Bolyai - Series Informatica*, LI, 2006, 2, 41–52. [Zmath, Zbl 1118.90324]

3. **[C] Kátai, Z.**, Dynamic programming strategies on the decision tree hidden behind the optimising problems, *Informatics in Education*, 6, 2007, 1, 115–138. [SCOPUS (Elsevier), ME 2010c.005kl23 io-port 50212215 Zentralblatt]

4. **Kátai, Z.**, „Frontier algorithms", *Teaching Mathematics and Computer Science*, 6, 2008, 1, 139–152. [ME 2009e.00684 Zentralblatt]
5. **Kátai, Z.**, Dynamic programming as optimal path problem in weighted digraphs, Acta Mathematica Academiae Paedagogicae Nyíregyháziensis, 24, 2008, 2, 201–208. [ElibM, io-port 05530093 Zentralblatt]
6. **Kátai, Z.**, The single-source shortest paths algorithms and the dynamic programming, *Teaching Mathematics and Computer Science*, 6, 2008, INFODIDACT, 25–35.

[Zentralblatt]

7. Zsakó, L., Juhász, K., **Kátai, Z.**, ICT-Methodology, *Teaching Mathematics and Computer Science*, 6, 2008, INFODIDACT, 3–24. [Zentralblatt]

8. **Kátai, Z.**, Kovács, I. L., Towers of Hanoi – where programming techniques blend, *Acta Universitatis Sapientiae, Informatica*, 1, 2009, 1, 89–108. [io-port 05562327 Zentralblatt]

9. **Kátai, Z.**, Csíki, Á., Automated dynamic programming, *Acta Universitatis Sapientiae, Informatica*, 1, 2009, 2, 149–164. [io-port 05605531 Zentralblatt]

10. **Kátai, Z.**, Modelling dynamic programming problems by generalized d–graphs, *Acta Universitatis Sapientiae, Informatica*, 2, 2010, 2, 210–230. [io-port 05896714 Zentralblatt]

11. **Kátai, Z.**, Kovács, L. I., Kása, Z., Márton, Gy., Fogarasi, K., Fogarasi, F., Cultivating algorithmic thinking: an important issue for both technical and HUMAN sciences, *Teaching Mathematics and Computer Science*, 9, 2011, 1, 1–10. [ME 2012a.00772 Zentralblatt]

12. Kása, Z., **Kátai, Z.**, Scattered subwords and composition of natural numbers, *Acta Universitatis Sapientiae, Informatica*, 4, 2012, 2, 225–236. [Zmath, Zbl 06315449]

13. Bege, A., **Kátai, Z.**, Sierpinski-like triangle-patterns in Bi- and Fibo-nomial triangles, *Annales Mathematicae et Informaticae,* 41, 2013, 1, 5–12. [SCOPUS (Elsevier), Zmath, Zbl 1274.11034]

14. **[C] Kátai, Z.**, Mutisensori Informatics Education, *Informatics in Education*, 13, 2014, 2. (in press) [SCOPUS (Elsevier), Zentralblatt]

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

1. Kátai Zoltán, Proof without words, *Teaching Mathematics and Computer Science*, 3, 2005, 2, 331.

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

C5. Lucrări ştiinţifice publicate în reviste, altele decât cele menţionate anterior

C6. Lucrări ştiinţifice publicate în volumele manifestărilor ştiinţifice [Categoria publicaţiei: A/B/C/D, conform cu http://informatica-universitaria.ro]

1. **Kátai, Z.**, Hogyan tanítsuk a programozási technikákat? (Cum să predăm tehnicile de programare?), *Szamokt 2004, 14th International Conference In Computer Science And Education*, EMT, Cluj-Napoca, Romania, 2004, 50–56.

2. **Kátai, Z.**, Programozási technikák felülnézetből (Tehnici de programare – o privire de ansamblu), *Szamokt 2005, 15th International Conference In Computer Science And Education*, EMT, Cluj-Napoca, Romania, 2005, 139–146.
3. **Kátai, Z.**, Algoritmus tervezés - Didaktikai szempontok (Proiectarea de algoritmilor – aspecte didactice), *Informatika a felső oktatásban (Informatica în învățământul superior)*, Debrețin, Ungaria, 2005, 168.

4. **Kátai, Z.**, Máthé, Sz., "Who wants to be an eminent?" - Assessment method and software, *7th International Conference on Applied Informatics, Vol. 2*, Eger, Ungaria, 2007, 37–44.

5. **Kátai, Z.**, Algoritmusok felülnézetből (Algoritmi – o privire de ansamblu), *Informatika a felső oktatásban (Informatica în învățământul superior)*, Debrețin, Ungaria, 2008, 117.
6. **Kátai, Z.**, Tóth, L., Algo-ritmika (Algo-ritmică), *Szamokt 2008, 18th International Conference In Computer Science*, EMT, Şumulea-Ciuc, Romania, 2008, 160–165.
7. Kovács, L. I., **Kátai, Z.**, Milyen programozási technikákkal oldható meg a Hanoi tornyai feladat? (Cu ce tehnici de programare poate fi rezolvată problema turnurilor din Hanoi?), *Szamokt 2008, 18th International Conference In Computer Science*, EMT, Şumulea-Ciuc, Romania, 2008, 185–192.

8. Kása, Z., **Kátai, Z.**, Legrövidebb utak alkalmazásai hálózatokban (Application of Shortest path algorithms in networks), *2nd International Economic Conference,* Kaposvár, Ungaria, 2009.
9. **Kátai, Z.**, „Cocktail-learning" a marosvásárhelyi Sapientian („Cocktail-learning" la Universitatea Sapientia), *Szamokt 2009, 19th International Conference In Computer Science*, EMT, Tirgu Mures, Romania, 2009, 243–246.

10. **Kátai, Z.**, Fülöp, P. I., Modeling dynamic programming problems: Petri nets versus d-graphs, *Proceedings of the 8th International Conference on Applied Informatics*, *Vol. 1*, Eger, Ungaria, 2010, 217–226.

11. **Kátai, Z.**, Solving Markov Decision Processes by d-graph algorithms, *Proceedings of the 3rd International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics (MACRo2011)*, Tirgu Mures, Romania, 2011, 63–74.
12. **Kátai, Z.**, Füzesi, A., Bubble-sort with "Csángó" folk dance, „*Mathematics, Music, Art, Architecture, Culture", Bridges Conference (Short Movie Festival)*, Coimbra, Portugalia, 2011.

(http://bridgesmathart.org/past-conferences/bridges-2011/2011-short-movie-festival/**)**

13. **[A] Kátai, Z.**, Intercultural Computer Science Education, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 183–188. (doi>10.1145/2591708.2591744)
14. **[A] Kátai, Z.**, Selective Hiding for Improved Algorithmic Visualization, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 33–38. (doi>10.1145/2591708.2591734)
15. **[A] Kátai, Z.**, ALGO-RYTHMICS: science and art without ethnic borders, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 329–329. (doi>10.1145/2591708.2602684) (poster)
16. **[A] Kátai, Z.**, Algorithmic Thinking for ALL: a motivational perspective, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 353–353. (doi>10.1145/2591708.2602669) (poster)

D. Traduceri de cărți, capitole de cărți, alte lucrări ştiințifice

E. Editare, coordonare de volume

F. Invenții

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

1. *„Legătura dintre tehnicile de programare şi teoria grafurilor”*, Institutul de Cercetări al Fundației Sapientia (KPI), 13.098 RON, director, 2007-2008.
   - **Kátai, Z.**, „Frontier algorithms”, *Teaching Mathematics and Computer Science*, 6, 2008, 1, 139–152. [ME 2009e.00684 Zentralblatt]
   - **Kátai, Z.**, Dynamic programming as optimal path problem in weighted digraphs, Acta Mathematica Academiae Paedagogicae Nyíregyháziensis, 24, 2008, 2, 201–208. [ElibM, io-port 05530093 Zentralblatt]
   - **Kátai, Z.**, The single-source shortest paths algorithms and the dynamic programming, *Teaching Mathematics and Computer Science*, 6, 2008, INFODIDACT, 25–35. [Zentralblatt]

2. *„Legătura dintre tehnicile de programare şi teoria grafurilor”*, Institutul de Cercetări al Fundației Sapientia (KPI), 12.200 RON, director, 2008-2009.
   - **Kátai, Z.**, Kovács, I. L., Towers of Hanoi – where programming techniques blend, *Acta Universitatis Sapientiae, Informatica*, 1, 2009, 1, 89–108. [io-port 05562327 Zentralblatt]
   - **Kátai, Z.**, Csíki, Á., Automated dynamic programming, *Acta Universitatis Sapientiae, Informatica*, 1, 2009, 2, 149–164. [io-port 05605531 Zentralblatt]

- **Kátai, Z.**, Modelling dynamic programming problems by generalized d–graphs, *Acta Universitatis Sapientiae, Informatica*, 2, 2010, 2, 210–230. [io-port 05896714 Zentralblatt]

3. *„Matematică discretă”*, Institutul de Cercetări al Fundației Sapientia (KPI), 12.000 RON, membru, 2008-2009.
   - Kása, Z., **Kátai, Z.**, Scattered subwords and composition of natural numbers, *Acta Universitatis Sapientiae, Informatica*, 4, 2012, 2, 225–236. [Zmath, Zbl 06315449]

4. *„Matematică discretă”*, Institutul de Cercetări al Fundației Sapientia (KPI), 45.000 RON, membru, 2009-2012.
   - Bege, A., **Kátai, Z.**, Sierpinski-like triangle-patterns in Bi- and Fibo-nomial triangles, *Annales Mathematicae et Informaticae,* 41, 2013, 1, 5–12. [SCOPUS (Elsevier), Zmath, Zbl 1274.11034]

5. „*Az anyanyelvű szakképzés helyzete, problémái a tanulás (középiskolások) és tanítás (tanárok) viszonylatában*” *(Educarea în limba maternă a elevilor din instituții cu profil tehnologic)*, Institutul de Cercetări al Fundației Sapientia (KPI), 7.000 RON, membru, 2013-2014.

Alte proiecte:

6. TAMOP 4.1.2-08/1/A (Social Revival Operative Programme), Guvernul Ungariei / Uniunea Europeană, 2.570.000 Ft (~37.000 RON), membru.
7. „ALGO-RITMICĂ: ştiinţă şi artă fără frontiere etnice”, Guvernul Ungariei (Programului „Szülőföld-alap”), 2.000.000 Ft (~29.000 RON), director, 2009-2010.
   - **Kátai, Z.**, Kovács, L. I., Kása, Z., Márton, Gy., Fogarasi, K., Fogarasi, F., Cultivating algorithmic thinking: an important issue for both technical and HUMAN sciences, *Teaching Mathematics and Computer Science*, 9, 2011, 1, 1–10. [ME 2012a.00772 Zentralblatt]
   - **Kátai, Z.**, Füzesi, A., Bubble-sort with “Csángó” folk dance, „*Mathematics, Music, Art, Architecture, Culture”, Bridges Conference (Short Movie Festival)*, Coimbra, Portugalia, 2011. **(**http://bridgesmathart.org/past-conferences/bridges-2011/2011-short-movie-festival/**)**
   - **Kátai, Z.**, ALGO-RYTHMICS: science and art without ethnic borders, *Proceedings of the 2014 conference on Innovation & technology in computer science education*, ACM New York, NY, USA, 2014, 329–329. (doi>10.1145/2591708.2602684)

H. Creația artistică

H1 Participări la manifestații artistice internaționale
H2. Participări la manifestații artistice naționale
H3. Expoziții, filme, spectacole, concerte, discuri de autor, opere internaționale
H4. Expoziții, filme, spectacole, concerte, discuri de autor, opere naționale
H5. Produse cu drept de proprietate intelectuală în domeniul artistic

I. Premii, distincții

1. 2013 Best Practices in Education Award (Informatics Europe) (http://www.informatics-europe.org/services/curriculum-award.html) (Zoltan Katai, Laszlo Toth and Alpar Karoly Adorjani: "Multi-Sensory Informatics Education").

J. Citări [Categoria publicației: A/B/C/D, conform cu http://informatica-universitaria.ro]

1. **Kátai, Z.**, Juhász, K., Adorjáni, A., K., On the role of senses in education, *Computers & Education*, 51, 2008, 4, 1707–1717.
   a) [A] (ISI, Scopus) E..N.Wiebe, J. Minogue, M.G. Jones, J. Cowley, D. Krebs. (2009). Haptic feedback and students learning about levers: Unravelling the effect of simulated touch. *Computers & Education*, 53, 667-676. doi:10.1016/j.compedu.2009.04.004 (impact factor: 2.19)
   b) [A] (ISI, IEEE) OL Oliveira, AM Monteiro. (2013). Can natural language be utilized in the learning of programming fundamentals? In Proceedings of *43rd Frontiers in Education*, 23-26 October, Oklahoma, USA.
   c) [C] (Scopus) Chiazzese G. & Laganà M. R. (2011). Online learning with virtual puppetry, *Journal of E-Learning and Knowledge Society,* 7 (3), pp. 121-129.
   d) [C] (Scopus) Kalyvioti, K., Mikropoulos, T.A. (2013). A virtual reality test for the identification of memory strengths of dyslexic students in higher education. Journal of Universal Computer Science.
   e) [C] (ISI, Scopus) Saeeda Naz, Syed Hamad Shirazi, Tassawar Iqbal, Danish Irfan, Muhammad Junaid and Yusra Naseer. (2014) . Learning Programming through Multimedia and Dry-Run. *Research Journal of Applied Sciences, Engineering and Technology*, 7(21): 4455-4463, ISSN:2040-7459; e-ISSN: 2040-7467.
   f) [D] (EBSCO) Fariba Haghan & Kourosh Shariatpanahi. (2011). Influence of Stretching and Deep Breathing Exercises on Test Achievement Scores of Medical Students in Isfahan Medical University, Iran. *Iranian Journal of Medical Education (IJME).* 11 (1), 40-47.
   g) [D] (Scopus) Korkmaz, O. (2013). Students' difficulties in and opinions about designing algorithms according to different instructional applications, *Energy Education Science and Technology Part B: Social and Educational Studies,* 5 (1), pp. 209-218.
   h) [D] (EBSCO, ERIC) Ö Korkmaz, H Altun. (2013). A validity and reliability study of the Attitude Scale of Computer Programming Learning (ASCOPL), *Mevlana International Journal of Education, 4*(1), pp. 30-43, (mije.mevlana.edu.tr) (http://dx.doi.org/10.13054/mije.13.73.4.1)
   i) [D] (ACM DL) C Marinagi, C Skourlas. (2013). Blended Learning in Personalized Assistive Learning Environments, *International Journal of Mobile and Blended Learning, 5*(2), 39-59.
   j) [D] (ASOS) Ö Korkmaz. (2013). Engineering And Ceit Student's Attitude Towards Learning Computer Programming, *The Journal of Academic Social Science Studies, 6*(2), 1169-1185.
   k) [D] (editlib.org) Abreu-Ellis, C. & Ellis, J. (2008). Universal Design, Information Resources, Technology, and E-learning. In G. Richards (Ed.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2008* (pp. 2410-2417). Chesapeake, VA: AACE.
   l) [D] (ashland.academia.edu) Abreu-Ellis, C. & Ellis, J. (2009). Principles of universal design in the classroom: a guideline for communication, teaching, and learning. *Linhas*, 10(2), 127 – 143.
   m) [D] (Scopus) Bey, A. B. & Tahar Bensalem, H. (2010). Assessment of algorithmic skills in learning environment. *Education Technology and Computer (ICETC),* 3, 213-216.
   n) [D] (Scopus) A. Bey, T. Bensebaa, H. Benselem. (2010). EASEL: Evaluation of Algorithmic Skills in an Environment Learning. *World Academy of Science, Engineering and Technology,* 66, 64-67.
   o) [D] (Scopus) Brereton, A.E. (2010). Is teaching sign language in early childhood classrooms feasible for busy teachers and beneficial for children? *YC Young Children.* 65 (4), pp. 92-97.
   p) [D] (Scopus) Luquini, E. & Omar, N. (2011). Programming plagiarism as a social phenomenon. *2011 IEEE Global Engineering Education Conference, EDUCON 2011* , art. no. 5773251, pp. 895-902.
   q) Chiazzese G. & Laganà M. R. (2011). Apprendere recitando nel Te@trino con le marionette, *Journal of E-Learning and Knowledge Society,* 7 (3), pp. 125-134.
   r) (didamatica2011.polito.it) Chiazzese G. & Laganà M. R. (2011). Il te@ trino virtuale, In proceeding of *Didamatica 2011*, Torino, 4-6 May.
   s) Matzner, M. (2013). Economünt. Essay (Master). http://essay.utwente.nl/64584/
   t) Korhonen, Katja. (2014). Käsitteiden hierarkioiden muodostuminen yläkoulun matematiikan opetuksessa. *Jyväskylä University Digital Archive*. https://jyx.jyu.fi/dspace/handle/123456789/43843.
   u) R Gardner, S Atkinson. (2012). E–learning and Password Games. Advances in Communications, Computing,

Networks and Security, Volume 9, Section 3. University of Plymouth Press. 95-103.

2. **Kátai Z.**, Toth L., Technologically and artistically enhanced multi-sensory computer programming education, *Teaching and teacher education,* 26, 2010, 2, 244–251.

   a) [A] (ACM, ERIC) Tompsett C. (2013). On the Educational Validity of Research in Educational Technology. *Educational Technology & Society, 16*(3), 179–190.

   b) [C] (Scopus) Chiazzese G. & Laganà M. R. (2011). Online learning with virtual puppetry, *Journal of E-Learning and Knowledge Society,* 7 (3), pp. 121-129.

   c) [C] Renjie LI, Xiaoliang ZHANG. 2013. Research on The Arts Teaching Methods Based on Modern Multimedia Technology. Journal of Convergence Information Technology(JCIT) Volume 8, Number 9, May 2013 doi:10.4156/jcit.vol8.issue9.58.

   d) [D] (essie-society.org) Chiazzese G. & Laganà M.R. (2011). Virtual theatrical learning: a new educational perspective of tomorrow. "Towards Systemic Innovation of Education", ESSIE (European Society for the Systemic Innovation of Education) Annual Assembly. 70-74. Leuven, Belgium. ISBN 978-90-817453-0-7.

   e) [D] (Scopus) Lin Ying Du, 2013, Experimental Research on Integration Teaching of inside and outside Aerobics Classes Based on Multimedia Technology, *Applied Mechanics and Materials*, Vols. 380-384, pp. 2109-2113.

   f) [D] Dean J. Campbell, Joshua P. Peterson , and Tamara J. Fitzjarrald. (2014). Spectroscopy of Sound Transmission in Solid Samples. *Journal of Chemical Education*. DOI: 10.1021/ed500070j

   g) National Chiayi University. ISSN:1816-6938, http://www.ncyu.edu.tw/files/site_content/spedc/%E7%AC%AC12%E6%9C%9F-%E5%85%A8.pdf

   h) Holly Ho, 2010, Multisensory Activities to Enliven Your Academic Reading and Writing Class, M.A. TESOL Conference, San Francisco State University. http://www.sfsu.edu/~matesol/?q=system/files/HollyHo_Handout.pdf

   i) Chiazzese G. & Laganà M. R. (2011). Apprendere recitando nel Te@trino con le marionette, *Journal of E-Learning and Knowledge Society,* 7 (3), pp. 125-134.

   j) (didamatica2011.polito.it) Chiazzese G. & Laganà M. R. (2011). Il te@ trino virtuale, In proceeding of *Didamatica 2011*, Torino, 4-6 May.

   k) Jakub Swacha. (2013). Nauczanie programowania jako e-usługa - aspekty technologiczne i ekonomiczne. Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług. Nr. 106. 25-263. http://bazekon.icm.edu.pl/bazekon/element/bwmeta1.element.ekon-element-000171260445

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3. **Kátai, Z.**, Multi-sensory method for teaching-learning recursion, *Computer Applications in Engineering Education*, 19, 2011, 2, 234–243.

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9. **Kátai Zoltán**, *Algoritmusok felülnézetből (Algoritmi – o privire de ansamblu)*, Editura Scientia, Cluj-Napoca, 2007. (in Hungarian)

   a) [C] Márton Gyöngyver, *Introduction in cryptography (Kriptográfiai alapismeretek)*, Scientia, Cluj-Napoca, 2008, ISBN 978-973-1970-00-4. (in Hungarian)

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K1. Alte realizări semnificative (Participări la conferințe naționale şi internaționale)

1. **Kátai Zoltán**, Hogyan tanítsuk a programozási technikákat? (Cum să predăm tehnicile de programare?), *Szamokt 2004, 14th International Conference In Computer Science And Education*, EMT, Cluj-Napoca, 25-28 Martie 2004.
2. **Kátai Zoltán**, Programozási technikák felülnézetből (Tehnici de programare – o privire de ansamblu), *Szamokt 2005, 15th International Conference In Computer Science And Education*, EMT, Cluj-Napoca, 17-20 Martie 2005.
3. **Kátai Zoltán**, Algoritmus tervezés - Didaktikai szempontok (Proiectarea de algoritmilor – aspecte didactice), *Informatika a felső oktatásban (Informatica în învățământul superior)*, Conferința internațională, Debrecen, Ungaria, 24-26 August 2005.
4. **Kátai Zoltán**, „Legyél te is eminens” - értékelési módszer és eszköz (Fii şi tu eminent – metodă şi instrument didactic), *Conferință ştiințifică organizată cu ocazia „Zilei Ştiinței în Transilvania”*, Miercurea Ciuc, 25-26 Noiembrie 2006.
5. **Kátai Zoltán**, Máthé Szabolcs, "Who wants to be an eminent?" - Assessment method and software, *7th International Conference on Applied Informatics*, Eger, Ungaria, 28-31 Ianuarie 2007.
6. **Kátai Zoltán**, Algoritmusok felülnézetből (Algoritmi – o privire de ansamblu), *Conferință ştiințifică a departamentului de Matematică şi Informatică a Facultății Sapientia*, Tg-Mureş, 18 Mai 2007.

7. **Kátai Zoltán**, „Automatizált” dinamikus programozás (Programare dinamică „automatizată”), *Conferinţă ştiinţifică organizată cu ocazia „Zilei Ştiinţei în Transilvania”*, Cluj Napoca, 16 Noiembrie 2007.
8. **Kátai Zoltán**, Legrövidebbút algoritmusok és Dinamikus programozás (Algoritmi de drum minim şi Programarea dinamică), *INFODIDACT, Conferinţă în domeniul didactica predării informaticii*, Szombathely, Ungaria, 11-12 Aprilie 2008.
9. **Kátai Zoltán**, Csiki Ágnes, “Automated” Dynamic programming, *MACS - 7th Joint Conference on Mathematics and Computer Science*, Cluj-Napoca, 3-6 Iulie 2008.
10. **Kátai Zoltán**, Algoritmusok felülnézetből (Algoritmi – o privire de ansamblu), *Informatika a felső oktatásban (Informatica în învăţământul superior)*, Conferinta internationala, Debrecen, Ungaria, 27-29 August 2008.
11. **Kátai Zoltán**, Tóth László, Algo-ritmika (Algo-ritmică), *Szamokt 2008, 18th International Conference In Computer Science*, EMT, Şumulea-Ciuc, 10-12 Octombrie 2008.
12. Kovács Lehel István, **Kátai Zoltán**, Milyen programozási technikákkal oldható meg a Hanoi tornyai feladat? (Cu ce tehnici de programare poate fi rezolvată problema turnurilor din Hanoi?), *Szamokt 2008, 18th International Conference In Computer Science*, EMT, Şumulea-Ciuc, 10-12 Octombrie 2008.
13. Kása Zoltán, **Kátai Zoltán**, Legrövidebb utak alkalmazásai hálózatokban (Application of Shortest path algorithms in networks), *2nd International Economic Conference*, Kaposvár, Ungaria, 2-3 Aprilie 2009.
14. **Kátai Zoltán**, Technológiailag és művészi elemekkel dúsított több-érzékszerves programozás oktatás (Technologically and artistically enhanced multi-sensory computer programming education), *MatInfo 2009 (Conferinţă organizată de Departamentul de Matematică-Informatică al Universităţii Sapientia)*, Tg-Mureş, 8 Iunie 2009.
15. **Kátai Zoltán**, „Algo-ritmika”: multimédia, szerepalakítás és tánc a programozás oktatásban („Algo-ritmică”: multimedia şi dans în predarea-învăţarea programării), *Multimedia az oktatásban 2009,* Debrecen, Ungaria, 24-25 Iunie 2009.
16. **Kátai Zoltán**, „Cocktail-learning” a marosvásárhelyi Sapientian („Cocktail-learning” la Universitatea Sapientia), *Szamokt 2009, 19th International Conference In Computer Science*, EMT, Tirgu Mures, 8-11 Octombrie 2009.
17. **Kátai Zoltán**, Garda-Mátyás Edit, Algoritmustervezési stratégiák gráfelméleti háttere (Legătura dintre tehnicile de programare şi teoria grafurilor), „Az EME 150 éves” – Conferinţă memorială, Miercurea Ciuc, 6-7 Noiembrie 2009.
18. **Kátai Zoltán**, Fülöp Péter István, Modeling dynamic programming problems: Petri nets versus d-graphs, *8th International Conference on Applied Informatics*, Eger, Ungaria, 27-30 Ianuarie 2010.
19. **Kátai Zoltán**, Két-agyféltekés programozás-oktatás a marosvásárhelyi Sapientián (Programarea calculatoarelor antrenând ambele emisfere al creierului), *INFODIDACT, Conference in Informatics-didactics*, Szombathely, Ungaria, 22-23 Aprilie 2010.
20. **Kátai Zoltán**, Solving Markov Decision Processes by d-graph algorithms, *The 3rd International Conference on Recent Achievements in Mechatronics, Automation,*

Computer Sciences and Robotics (MACRo2011), Tîrgu Mureş, 8-9 Aprilie 2011.

21. **Kátai Zoltán**, Interkulturális programozás-oktatás a marosvásárhelyi Sapientián (Metodă interculturală de predare-învățare a programării calculatoarelor la Universitatea Sapientia), *INFODIDACT, Conference in Informatic-didactics*, Szombathely, Ungaria, 31 Martie - 1 Aprilie 2011.
22. **Kátai Zoltán**, Algo-ritmika: tudomány és művészet etnikai határok nélkül (Algo-ritmică: Ştiinţă şi artă fără frontiere etnice), *MatInfo 2011 (Conferinţă organizată de Departamentul de Matematică-Informatică, Universitatea Sapientia)*, Tg-Mureş, 5 Iunie 2011.
23. Kása Zoltán, **Kátai Zoltán**, Scattered subwords and composition of natural numbers, *MACS - 9th Joint Conference on Mathematics and Computer Science*, Siófok, Ungaria, 9-12 Februarie 2012.
24. Bege Antal, **Kátai Zoltán**, Sierpinski-like triangle-patterns in Fibonomial triangles, *15th International Conference on Fibonacci Numbers and Their Applications*, Eger, Ungaria, 25-30 Iunie 2012.
25. Vekov Géza, Györfi Ágnes, **Kátai Zoltán**, Differenciált programozás-oktatás a marosvásárhelyi Sapientia EMTE-n (Metode diferenţiate de predare a programării calculatoarelor la Universitatea Sapientia), *INFODIDACT, Conference in Informatic-didactics*, Zamárdi, Ungaria, 15-16 Noiembrie 2012.
26. **Kátai Zoltán**, Intercultural Computer Science Education, *The 2014 conference on Innovation & technology in computer science education*, Uppsala, Suedia, 23-25 Iulie 2014.
27. **Kátai Zoltán**, Selective Hiding for Improved Algorithmic Visualization, *The 2014 conference on Innovation & technology in computer science education*, Uppsala, Suedia, 23-25 Iulie 2014.
28. **Kátai Zoltán**, ALGO-RYTHMICS: science and art without ethnic borders, *The 2014 conference on Innovation & technology in computer science education*, Uppsala, Suedia, 23-25 Iulie 2014.
29. **Kátai Zoltán**, Algorithmic Thinking for ALL: a motivational perspective, *The 2014 conference on Innovation & technology in computer science education*, Uppsala, Suedia, 23-25 Iulie 2014.

K2. Alte realizări semnificative (Referent ştiinţific, Recenzii, etc)

- Referent ştiinţific al cărţii: Ignát Judit Anna, Incze Katalin, Jakab Irma Tünde, *Informatika: Tankönyv a XI. osztály számára (Informatica: Manual pentru clasa a XI-a)*, Editura Abel, Cluj Napoca, 2006, ISBN (10)973-114-009-3, (13)978-973-114-009-4
- Recenzii la revista internaţională de specialitate indexată, *Teaching Mathematics and Computer Science*, Debrecen, Ungaria, 2007 –
- Recenzii la revista internaţională de specialitate cotată ISI, *Computers and Education*, 2008 –
- Recenzii la revista internaţională de specialitate cotată ISI, *Computer Applications in Engineering Education*, 2008 –
- Recenzii la revista internaţională de specialitate cotată ISI, *Journal of*

Computer Assisted Learning, 2013 –

- Membru în comitetul de program a conferinței organizată anual *INFODIDACT*.
- Membru în comitetul de program a conferinței *MaCS (Mathematics and Computer Science)*.
- Antrenorul echipelor *ACM* al Universității Sapientia. Locul 4 între echipele româneşti la regionala Europei sud-est, Bucureşti, 2006.
- Inițiatorul şi organizatorul principal al concursului de programare internațională *Sapientia-ECN*.

K3. Alte realizări semnificative (Alte articole):

1. Kátai Zoltán, Rekurzió egyszerűen és érdekesen (Recursivitate – într-un mod simplu şi interesant), *Firka,* 2002/2003-2/3/4/5/6, (ISSN 1224-371X), EMT Cluj-Napoca, p. 51-52, 100-102, 144-145, 194-196, 234-236.
2. Kátai Zoltán, Programozási technikák felülnézetből (Tehnici de programare – o privire de ansamblu), Firka, 2003/2004-4/5, EMT, Cluj-Napoca, 145-148, 190-192.

K4. Alte realizări semnificative (Instrumente didactice):

1. Quick-sort with Hungarian (Küküllőmenti legényes) folk dance.
   https://www.youtube.com/user/AlgoRythmics. 690,264 views.
2. Merge-sort with Transylvanian-saxon (German) folk dance.
   https://www.youtube.com/user/AlgoRythmics. 200,476 views.
3. Shell-sort with Hungarian (Székely) folk dance.
   https://www.youtube.com/user/AlgoRythmics. 306,861 views.
4. Select-sort with Gypsy folk dance.
   https://www.youtube.com/user/AlgoRythmics. 257,398 views.
5. Bubble-sort with Hungarian ("Csángó") folk dance.
   https://www.youtube.com/user/AlgoRythmics. 753,299 views.
6. Insert-sort with Romanian folk dance.
   https://www.youtube.com/user/AlgoRythmics. 293,651 views.
7. Technologically and artistically enhanced inter-cultural computer science education
   http://algo-rythmics.ms.sapientia.ro/

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