

# **Lista de lucrări în domeniul de știință definit de disciplinele din postul scos la concurs**

**NUMELE ȘI PRENUMELE: BIRÓ PIROSKA**

## **I. LISTA PUBLICAȚIILOR RELEVANTE**

1. Biró, P., & Kádek, T. (2020). Automatic Evaluation of Programming Tasks at the University of Debrecen. In INTED2020 Proceedings (pp. 3522–3527). <http://doi.org/10.21125/inted.2020.0994> (**Web of Science**)
2. Mária, C., & Piroska, B. (2017). First year students' attitude to computer problem solving. In 2017 8TH IEEE International Conference on Cognitive Infocommunications (Coginfocom) (pp. 225–230). <http://doi.org/10.1109/CogInfoCom.2017.8268247> (**IEEE Xplore, Web of Science, Scopus**)
3. Biró, P., Csernoch, M., Abari, K., & Máth, J. (2016). First Year Students' Algorithmic Skills in Tertiary Computer Science Education. Advances in Intelligent Systems and Computing, 416, 351–358. [http://doi.org/10.1007/978-3-319-27478-2\\_24](http://doi.org/10.1007/978-3-319-27478-2_24) (**Web of Science**)
4. Csernoch, M., Biró, P., Máth, J., & Abari, K. (2015). Testing Algorithmic Skills in Traditional and Non-Traditional Programming Environments. *Informatics in Education: An International Journal*, 14(2), 175–197. <http://doi.org/10.15388/infedu.2015.11> (**Scopus, Web of Science**)
5. Biró, P., & Csernoch, M. (2015). The mathability of computer problem solving approaches. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 111–114). <http://doi.org/10.1109/CogInfoCom.2015.7390574> (**IEEE Xplore, Web of Science, Scopus**)
6. Biró, P., & Csernoch, M. (2015). The mathability of spreadsheet tools. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 105–110). <http://doi.org/10.1109/CogInfoCom.2015.7390573> (**IEEE Xplore, Web of Science, Scopus**)
7. Biró, P., Csernoch, M., Máth, J., & Abari, K. (2015). Measuring the level of algorithmic skills at the end of secondary education in Hungary. *Procedia - Social and Behavioral Sciences*, 176, 876–883. <http://doi.org/10.1016/j.sbspro.2015.01.553> (**Scopus, Web of Science**)
8. Csernoch, M., & Biró, P. (2015). Sprego Programming. *Spreadsheets in Education*, 8(1), 1–38.
9. Biró, P., & Csernoch, M. (2013). Deep and surface structural metacognitive abilities of the first year students of Informatics. In 2013 IEEE 4th International Conference On Cognitive Infocommunications (Coginfocom) (pp. 521–526). <http://doi.org/10.1109/CogInfoCom.2013.6719303> (**IEEE Xplore, Web of Science, Scopus**)
10. Biró, P. (2011). Students and the interactive whiteboard. *Acta Didactica Napocensia*, 4(2–3), 29–38.

## **II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENTII**

### **A. Teza de doctorat.**

**Titlul (engleză):** The analisys of the effect of infocommunication techology in education

**Titlul (maghiară):** Az infokommunikációs technológia hatásának elemzése az oktatásban.

**Conducător științific:** Dr. Nyakóné dr. Juhász Katalin, Prof. Dr. Terdik György

**Locul susținerii:** Universitatea din Debrecen, Facultatea de Informatică, Debrecen, Ungaria

**Data:** 13.05.2015

### **B. Cărți publicate**

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

1. Csernoch, M., Biró, P., & David, D. (2015). Sprego Programming. (D. David, Ed.). Saarbrücken: Lambert Academic Publishing (LAP). (March 26, 2015), pp. 60. ISBN-13 : 978-3659516894

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

#### **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.**

1. Nyakóné, J. K., Terdik, G., Biró, P., & Kátai, Z. (2011). Bevezetés az Informatikába. (Introducere în Informatică) Debrecen: Debreceni Egyetem Informatikai Kar. Web: [https://regi.tankonyvtar.hu/hu/tartalom/tamop425/0046\\_bevezetes\\_az\\_informatika\\_ba/index.html](https://regi.tankonyvtar.hu/hu/tartalom/tamop425/0046_bevezetes_az_informatika_ba/index.html)

#### **B5. Capitole de cărți publicate în străinătate**

#### **B6. Capitole de cărți publicate în țară**

### **C. Lucrări științifice publicate**

#### **C1. Lucrări științifice publicate în reviste cotate ISI**

#### **C2. Lucrări științifice publicate în reviste indexate în baze de date internaționale (indicați și baza de date).**

1. Biró, P., & Csernoch, M. (2017). Semi-Unplugged Tools for Building Algorithms With Sprego. TURKISH ONLINE JOURNAL OF EDUCATIONAL TECHNOLOGY, Spec. Issue for INTE(2), 946–957. (**Scopus**)
2. Biró, P., & Csernoch, M. (2016). Computer Science Students' Attitudes. TURKISH ONLINE JOURNAL OF EDUCATIONAL TECHNOLOGY, 1, 503–510. (**Scopus**)

3. Biró, P., Csernoch, M., Máth, J., & Abari, K. (2015). Measuring the level of algorithmic skills at the end of secondary education in Hungary. *PROCEDIA - SOCIAL AND BEHAVIORAL SCIENCES*, 176, 876–883. <http://doi.org/10.1016/j.sbspro.2015.01.553> (**Scopus, Web of Science**)
4. Csernoch, M., Biró, P., Máth, J., & Abari, K. (2015). Testing Algorithmic Skills in Traditional and Non-Traditional Programming Environments. *INFORMATICS IN EDUCATION: AN INTERNATIONAL JOURNAL*, 14(2), 175–197. <http://doi.org/10.15388/infedu.2015.11> (**Scopus, Web of Science**)
5. Biró, P., Csernoch, M., Abari, K., & Máth, J. (2015). Testing Algorithmic and Application Skills. *TURKISH ONLINE JOURNAL OF EDUCATIONAL TECHNOLOGY*, Special, 536–543. (**Scopus**)

**C3. Lucrări științifice publicate în reviste din străinătate (altele decât cele menționate anterior).**

1. Piroska, B., Mária, C., Katalin, S., & Eszter, G. (2018). Algorithmic Skills Vs. Time Spent On Computers And Mobile Devices. *TURKISH ONLINE JOURNAL OF EDUCATIONAL TECHNOLOGY*, 2, 133–140.
2. Biró, P., Csernoch, M., Máth, J., & Abari, K. (2015). Algorithmic Skills Transferred from Secondary CSI Studies into Tertiary Education. *INTERNATIONAL JOURNAL OF SOCIAL EDUCATION ECONOMICS AND MANAGEMENT ENGINEERING*, 9(2), 426–432.
3. Csernoch, M., & Biró, P. (2015). Számítógépes problémamegoldás. *TUDOMÁNYOS ÉS MŰSZAKI TÁJÉKOZTATÁS*, 62(3), 86–94.
4. Csernoch, M., & Biró, P. (2015). The power in digital literacy and algorithmic skill. *PROCEDIA - SOCIAL AND BEHAVIORAL SCIENCES*, 174, 550–559. <http://doi.org/10.1016/j.sbspro.2015.01.705> (**Web of Science**)
5. Csernoch, M., & Biró, P. (2015). Wasting Human and Computer Resources. *INTERNATIONAL JOURNAL OF SOCIAL EDUCATION ECONOMICS AND MANAGEMENT ENGINEERING*, 9(2), 555–563.
6. Csernoch, M., & Biró, P. (2015). Sprego Programming. *SPREADSHEETS IN EDUCATION*, 8(1), 1–38.
7. Biró, P. (2014). Barátságos kalauz az interaktív táblák használatához. *ÚJ PEDAGÓGIAI SZEMLE*, 2014(9–10), 124–128.
8. Biró, P. (2012). Teachers and the interactive whiteboards. *TEACHING MATHEMATICS AND COMPUTER SCIENCE*, 10(2), 281–298.

**C4. Lucrări științifice publicate în reviste din țară, recunoscute CNCSIS/CNCS (altele decât cele din baze de date internaționale).**

1. Csernoch, M., & Biró, P. (2016). Introduction to Classroom Sprego. *ACTA DIDACTICA NAPOCENSIA*, 9(1), 1–14.

2. Csernoch, M., Biró, P., Abari, K., & Máth, J. (2015). Understanding algorithms in different presentations. *ACTA DIDACTICA NAPOCENSIA*, 8(4), 1–12.
3. Biró, P. (2012). Interactive Whiteboard in Mathematics Education. *ACTA UNIVERSITATIS SAPIENTIAE SOCIAL ANALYSIS*, 2(1), 111–127.
4. Biró, P. (2011). Students and the interactive whiteboard. *ACTA DIDACTICA NAPOCENSIA*, 4(2–3), 29–38.

#### **C5. Lucrări științifice publicate în reviste, altele decât cele menționate anterior**

#### **C6. Lucrări științifice publicate în volumele manifestărilor științifice**

1. Biró, P., & Kádek, T. (2020). Automatic Evaluation of Programming Tasks at the University of Debrecen. In *INTED2020 Proceedings* (pp. 3522–3527). <http://doi.org/10.21125/inted.2020.0994> (**Web of Science**)
2. Kádek, T., & Biró, P. (2020). A távolléti oktatás hatásai a ProgCont rendszerre. In *XXI. Energetika-Elekktrotechnika – ENELKO és XXX. Számítástechnika és Oktatás – SzámOkt Multi-konferencia* (pp. 104–109).
3. Biró, P. (2019). Developing the algorithmic skills of foreign students. In *INTERNATIONAL CONFERENCE ON NEW HORIZONS IN EDUCATION* (pp. 156–162).
4. Csernoch, M., & Biró, P. (2019). Are digital natives spreadsheet natives? In *Proceedings of the EuSpRIG 2019 Conference "Spreadsheet Risk Management"* (pp. 1–12).
5. Kádek, T., & Biró, P. (2019). A ProgCont API: programozási feladatok megoldásainak újszerű kiértékelése. In *ENELKO 2019 SzámOkt 2019* (pp. 191–195).
6. Biró, P., & Csernoch, M. (2018). Maths Problems in Pseudo-Codes Compared to Computer Usage. In *Education and New Developments 2018* (pp. 341–345).
7. Csernoch, M., Biró, P. (2018). Edu-Edition Spreadsheet Competency Framework. (T. Simon & J. C. Grenville, Eds.). London: Department of Mechanical Engineering, Imperial College. *Proceedings of the EuSpRIG 2017 Conference "Spreadsheet Risk Management"*, Imperial College, London, pp. 121-136. <https://arxiv.org/abs/1802.00496>
8. Biró, P., & Csernoch, M. (2017). Unplugged tools for building algorithms with Sprego. In *Education and New Developments 2017* (pp. 401–405).
9. Csernoch, M., Biró, P. (2017). Teaching methods are erroneous: approaches which lead to erroneous end-user computing. (T. Simon & J. C. Grenville, Eds.). *Proceedings of the EuSpRIG 2016 Conference "Spreadsheet Risk Management"* pp. 1-14. <https://arxiv.org/abs/1704.01130>
10. Mária, C., & Piroska, B. (2017). First year students' attitude to computer problem solving. In *2017 8TH IEEE INTERNATIONAL CONFERENCE ON COGNITIVE INFOCOMMUNICATIONS (COGINFOCOM)* (pp. 225–230). <http://doi.org/10.1109/CogInfoCom.2017.8268247> (**IEEE Xplore, Web of Science, Scopus**)

11. Biró, P., & Csernoch, M. (2016). Felhasználóbarát szövegkezelési hibák. In A pedagógusképzés XXI. századi perspektívái (pp. 177–186).
12. Biró, P., Csernoch, M., Abari, K., & Máth, J. (2016). First Year Students' Algorithmic Skills in Tertiary Computer Science Education. ADVANCES IN INTELLIGENT SYSTEMS AND COMPUTING, 416, 351–358. [http://doi.org/10.1007/978-3-319-27478-2\\_24](http://doi.org/10.1007/978-3-319-27478-2_24) (Web of Science)
13. Biró, P., & Csernoch, M. (2016). Sprego-programozás hatékonyságvizsgálata. In Interdiszciplináris pedagógia és az oktatási rendszer újraformálása (pp. 117–126).
14. Csernoch, M., & Biró, P. (2016b). Utilizing Sprego and Sprego contents. In WIPSCE '16 (pp. 102–103). (Scopus)
15. Gombos, E., & Biró, P. (2016). A hibakezelés szintjei és sajátosságai a tanítási folyamatban. In A pedagógusképzés XXI. századi perspektívái (pp. 187–193).
16. Biró, P., & Csernoch, M. (2015). The mathability of computer problem solving approaches. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 111–114). <http://doi.org/10.1109/CogInfoCom.2015.7390574> (IEEE Xplore, Web of Science, Scopus)
17. Biró, P., & Csernoch, M. (2015). The mathability of spreadsheet tools. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 105–110). <http://doi.org/10.1109/CogInfoCom.2015.7390573> (IEEE Xplore, Web of Science, Scopus)
18. Biró, P., & Csernoch, M. (2015). Algoritmusok és/vagy táblázatkezelés? In VII. Oktatás-Informatikai Konferencia : tanulmánykötet (pp. 97–111).
19. Csernoch, M., & Biró, P. (2015). Sprego helye az informatika tantervekben. In INFODIDACT 2015 (pp. 1–13).
20. Csernoch, M., & Biró, P. (2015). Developing Digital Competence in Non-traditional Programming Environments. In END 2015: International conference on education and new developments (pp. 380–384).
21. Csernoch, M., & Biró, P. (2015). Problem Solving in Sprego. In 16th EuSpRIG Annual Conference “Spreadsheet Risk Management” (pp. 1–13).
22. Biró, P., & Csernoch, M. (2014). Informatika szakos hallgatók tudására vonatkozó tudásmérés tanári és hallgatói megközelítésben. In Minőség és versenyképes tudás (pp. 165–172).
23. Biró, P., Csernoch, M., Abari, K., & Máth, J. (2014). First year students' algorithmic skills in tertiary Computer Science education. In Proceedings of the 9th International Conference on Knowledge, Information and Creativity Support Systems (pp. 301–306).
24. Biró, P., & Csernoch, M. (2014). Deep and surface metacognitive processes in non-traditional programming tasks. In 5th IEEE International Conference on Cognitive Infocommunications (pp. 49–54). <http://doi.org/10.1109/CogInfoCom.2014.7020507> (IEEE Xplore, Web of Science, Scopus)
25. Biró, P., & Csernoch, M. (2014). Táblázatkezelés algoritmikus megközelítése. In Interdiszciplináris pedagógia és a fenntartható fejlődés (pp. 310–321).

26. Biró, P. (2014). CAEDUS oktatási keretrendszer. In Informatika a felsőoktatásban 2014 (pp. 676–688).
27. Csernoch, M., Biró, P., Abari, K., & Máth, J. (2014). Programozásorientált táblázatkezelői függvények. In XIV. Országos Neveléstudományi Konferencia: Oktatás és nevelés – gyakorlat és tudomány (pp. 463–463).
28. Csernoch, M., Biró, P., Máth, J., & Abari, K. (2014). Mit tudok informatikából? In Informatika a felsőoktatásban 2014 (pp. 217–230).
29. Csernoch, M., & Biró, P. (2014). Digital Competency and Digital Literacy is at Stake. In ECER 2014 The Past, the Present and Future of Educational Research in Europe (p. [1-4]).
30. Csernoch, M., & Biró, P. (2014). Spreadsheet misconception, spreadsheet errors. In Oktatáskutatás határon innen és túl (pp. 370–395).
31. Biró, P., & Csernoch, M. (2013). Deep and surface structural metacognitive abilities of the first year students of Informatics. In 2013 IEEE 4TH INTERNATIONAL CONFERENCE ON COGNITIVE INFOCOMMUNICATIONS (COGINFOCOM) (pp. 521–526). <http://doi.org/10.1109/CogInfoCom.2013.6719303> (IEEE Xplore, Web of Science, Scopus)
32. Biró, P., & Csernoch, M. (2013). Elsőéves informatikushallgatók algoritmizáló készségei - Programming skills of the first year students of Informatics. In XXIII. Nemzetközi Számítástechnika és Oktatás Konferencia (pp. 154–159).
33. Csernoch, M., & Biró, P. (2013). Teachers' Assessment and Students' Self-Assessment on The Students' Spreadsheet Knowledge. In EDULEARN13 Proceedings 5th International Conference on Education and New Learning Technologies (pp. 949–956). (Web of Science)
34. Csernoch, M., & Biró, P. (2013). Algoritmikus és alkalmazói készségek tesztelése. In INFODIDACT 2013 (pp. 1–20).
35. Csernoch, M., & Biró, P. (2013). Button-up technikák hatékonyságának vizsgálata informatika szakos hallgatók táblázatkezelés-oktatásában. In Új kutatások a neveléstudományokban 2012: A munka és a nevelés világa a tudományban (pp. 369–392).
36. Biró, P. (2012). Attitudes of Interactive Whiteboard Users. In Proceedings of the 4th International Conference on Computer Supported Education (CSEDU 2012) (pp. 348–355).
37. Biró, P., Demeter, L., Kónya, K., & Ozsvár, S. (2011). Számítógépes Oktatóprogramok. In Multimédia az oktatásban, 1995-2010 (pp. 1–5).
38. Biró, P. (2008). Interaktív tábla az oktatásban. In Tavaszi Szél 2008 (pp. 665–671).
39. Bíró, P. (2008). Informatika alkalmazása az oktatásban. In Informatika a felsőoktatásban 2008 (pp. 68–75).
40. Biró, P. (2007). A számítógép és a matematika. In 13. MultiMédia az oktatásban konferencia (pp. 263–268).
41. Biró, P. (2006). E-learning, b-learning és projektpedagógia. In Projektpedagógia - Projektmódszer VI. (pp. 53–59).

42. Biró, P. (2006). Informatika alkalmazása a matematika oktatásban. In Matematika-, fizika, számítástechnika főiskolai oktatók XXX. konferencia (pp. 1–7).
43. Fülöp, T. E., & Biró, P. (2004). E-learning előnyei és hátrányai. In Multimédia az oktatásban (pp. 89–95).

#### **D. Traduceri de cărți, capitole de cărți, alte lucrări științifice**

**Traducători:** Biró Piroska, Szeghalmy Szilvia és Varga Imre

**Titlul în maghiară:** Hogyan gondolkozz úgy, mint egy informatikus: Tanulás Python 3 segítségével

**Titlul cărții originale:** Peter Wentworth, Jeffrey Elkner, Allen B. Downey és Chris Meyers: How to Think Like a Computer Scientist: learning with Python, 2012

**Web:** <https://gyires.inf.unideb.hu/EFOP344/PythonHTML/index.html>

#### **E. Editare, coordonare de volume**

#### **F. Brevete de invenții și alte titluri de proprietate**

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

#### **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**

### **III. RECUNOAȘTEREA**

#### **I. Premii, distincții.**

- 2020 – Medalie Tarján, Societatea de Științe Informaticce János Neumann, Budapest
- 2018 – Premiu de excelență didactică, Universitatea Debrecen, Facultatea de Informatică, Debrecen, Ungaria
- 2014 – Certificat de excelență al rectorului, Universitatea Debrecen, Debrecen, Ungaria
- 2007 – Diplomă pentru pregătirea elevilor la Concursul de Matematică Ilona Zrínyi, Miercurea Ciuc.
- 2005 – Mențiune la Conferința Științifică din Transilvania pentru Studenți, Universitatea Babeș-Bolyai, Facultatea de Matematică și Informatică, Cluj Napoca, titlul lucrării: Aplicații CAS (Computer Algebra System)
- 2004 – Premiul II la Conferința Științifică din Transilvania pentru Studenți, Universitatea Babeș-Bolyai, Facultatea de Matematică și Informatică, Cluj Napoca, titlul lucrării: Oportunități de educație asistată de computer.

## J. Citări

- A1. Biró, P., & Csernoch, M. (2015). The mathability of computer problem solving approaches. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 111–114).  
<http://doi.org/10.1109/CogInfoCom.2015.7390574>

Citat în:

1. Bubnó, K., & László Takács, V. (2017). The mathability of word problems as initial computer programming exercises In: Baranyi, Péter (szerk.) *2017 8th IEEE International Conference On Cognitive Infocommunications (Coginfocom)*: (pp. 39-44).
2. Kovari, A. (2018). CogInfoCom Supported Education: A review of CogInfoCom based conference papers In: *2018 9th IEEE International Conference on Cognitive Infocommunications* (CogInfoCom) (pp. 233-236.).
3. Gilányi, A.; Chmielewska, K. (2018). Educational Context of Mathability, *Acta Polytechnica Hungarica* 15:5, pp. 223-237.
4. Csapo, A. B. (2019). The Spiral Discovery Network as an Evolutionary Model for Gradient-Free Non-Convex Optimization. *2018 9th IEEE International Conference on Cognitive Infocommunications* (CogInfoCom) (pp. 347-352.)
5. K. Chmielewska, A. Gilányi and A. Łukasiewicz, "Mathability and mathematical cognition," 2016 7th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Wroclaw, 2016, pp. 000245-000250, doi: 10.1109/CogInfoCom.2016.7804556.
6. K. Chmielewska and A. Gilányi, "Mathability and computer aided mathematical education," 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Gyor, 2015, pp. 473-477, doi: 10.1109/CogInfoCom.2015.7390639.
7. G. Csapó, "Sprego virtual collaboration space," 2017 8th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Debrecen, 2017, pp. 000137-000142, doi: 10.1109/CogInfoCom.2017.8268230.
8. K. Chmielewska and A. Gilányi, "Computer Assisted Activating Methods in Education," 2019 10th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Naples, Italy, 2019, pp. 241-246, doi: 10.1109/CogInfoCom47531.2019.9089900.
9. A. Gilányi, N. Merentes and R. Quintero, "Mathability and an animation related to a convex-like property," 2016 7th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Wroclaw, 2016, pp. 000227-000232, doi: 10.1109/CogInfoCom.2016.7804553.
10. M. Dergham and A. Gilányi, "Application of Virtual Reality in Kinematics Education," 2019 10th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Naples, Italy, 2019, pp. 107-112, doi: 10.1109/CogInfoCom47531.2019.9089971.
11. G. Csapó, "Placing event-action-based visual programming in the process of computer science education", *Acta Polytechnica Hungarica*, vol. 16, 2019.
12. K. Chmielewska, W. Ciskowska, D. Glazik, D. Marcinek, K. Wojciechowska and A. Gilányi, "Learnability - are we Ready for Distance Learning?," 2020

- 11th IEEE International Conference on Cognitive Infocommunications (CogInfoCom), Mariehamn, Finland, 2020, pp. 465-470, doi: 10.1109/CogInfoCom50765.2020.9237881.
13. Velasco Ramirez, María Luisa. Resolución de problemas algorítmicos y objetos de aprendizaje: una revisión de la literatura. RIDE. Rev. Iberoam. Investig. Desarro. Educ [online]. 2020, vol.10, n.20, e022. [http://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S2007-74672020000100122&lng=es&nrm=iso](http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-74672020000100122&lng=es&nrm=iso)
- A2.** Biró, P., & Csernoch, M. (2015c). The mathability of spreadsheet tools. In 2015 6th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 105–110). <http://doi.org/10.1109/CogInfoCom.2015.7390573>
- Citat în:
14. Bubnó, K., & László Takács, V. (2017). The mathability of word problems as initial computer programming exercises In: Baranyi, Péter (szerk.) *2017 8th IEEE International Conference On Cognitive Infocommunications (Coginfocom)*: (pp. 39-44).
  15. Kovari, A. (2018). CogInfoCom Supported Education: A review of CogInfoCom based conference papers In: *2018 9th IEEE International Conference on Cognitive Infocommunications* (CogInfoCom) (pp. 233-236.).
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**Semnătura,**