Lista de lucrări

Numele şi prenumele: HARANGUS Katalin (născ. Jakab)

LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

A. Teza de doctorat
Contribuţii la determinarea, prin metode nedistructive, a caracteristicelor mecanice la materialele ortotrope. Conducător ştiinţific: prof. dr. ing. Ioan Száva, Universitatea „*Transilvania"* din Brașov, Facultatea de Inginerie Mecanică, (susţinerea publică pe 11 decembrie 2013).

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

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

1. **Harangus Katalin**. *Számítógéppel támogatott oktatás* (Instruire asistată de calculator), Editura Scientia, Cluj-Napoca, (2021), p. 204, ISBN: 978-606-975-052-0. http://real.mtak.hu/132662/1/2021-HarangusSzamitogeppel_REAL.pdf
2. **Harangus Katalin**. Kakucs András, *Valószínűségszámítás és statisztika a mérnöki gyakorlatban* (Probabilitate și statistică în practica inginerească), Editura Erdélyi Múzeum Egyesület, Cluj-Napoca, (2021), p. 185, ISBN: 978-606-739-181-7, DOI: 10.36242/mtf-15, https://www.eme.ro/publication-hu/mtf/borito+pdf/mtf15.pdf

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

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

1. **Harangus Katalin**. *A szakmódszertan elmélete és gyakorlata mérnök alapszakos hallgatók számára* (Teoria și practica metodologiei pentru studenții ingineri), Universitatea Sapientia, Departamentul de Specialitate cu Profil Psihopedagogic, (2021), p.107, ISBN 978-973-0-35759-2, http://opac3.ms.sapientia.ro/hu/record/-/record/RECORD120318
2. **Harangus Katalin**. *Statisztika* (Statistică), p.120 + 4 prezentare video,
   (2018): https://elearning.uni-obuda.hu/workground,
   (2021): https://moodle.ms.sapientia.ro/course/index.php?categoryid=8
3. **Harangus Katalin**. *Gyakorlati útmutató mérnök alapszakos pedagógusjelöltek számára* (Îndrumar laborator pentru studenții de la specializările inginerești), (2021), p.106, https://www.ms.sapientia.ro/~harangus/Laboratoriumi%20utmutato.pdf

B5. Capitole de cărţi publicate în străinătate

1. **Harangus Katalin**, Horváth Zsófia, Szentes Erzsébet. (2023). Tanárképzős hallgatók eszközhasználatának vizsgálata (a tanítás és a tanulás szempontjából), In. *Szakképzés-*

Pedagógia Tudományos Közlemények (szerk. Benedek András), Kiadó BME Gazdasági- és Társadalomtudományi Kar Műszaki Pedagógiai Tanszék, Budapest, (2023), ISSN 2786-1856.

2. Kakucs, A., Kátai, Z., **Harangus, K**. (2023). A Context-Based Approach to Teaching Dynamic Programming. In: Yadav, R.P., Nanda, S.J., Rana, P.S., Lim, MH. (eds) *Proceedings of the International Conference on Paradigms of Computing, Communication and Data Sciences. Algorithms for Intelligent Systems*, vol. p. 671-683, Springer Nature, Singapore, ISBN: 978-981-19-8741-0. https://doi.org/10.1007/978-981-19-8742-7_53
3. Kakucs András, Kátai Zoltán, **Harangus Katalin**. Algoritmus vizualizációk a dinamikus programozás oktatásában (Vizualizării algoritmilor în predarea programării dinamice). In. *Szakképzés-Pedagógia Tudományos Közlemények* (Vocational Training Pedagogical Scientific Publications) (ed. Benedek András), Editura BME Gazdasági- és Társadalomtudományi Kar Műszaki Pedagógiai Tanszék, Budapest, (2022), p. 167-181, ISSN 2786-1856.
4. **Harangus K**., A szemléletváltás szükségessége a pedagógusképzésben: digitáliskompetencia-mérés. In. *Szakképzés-Pedagógia Tudományos Közlemények* (szerk. Benedek András), BME Gazdasági- és Társadalomtudományi Kar Műszaki Pedagógiai Tanszék Kiadó, Budapest, 2021, p. 49-59, ISSN 2786-1856
5. **Harangus Katalin**. Mérnök szakos hallgatók problémamegoldó képességének empirikus vizsgálata (Studiul empiric al abilităților de rezolvare a problemelor în rândul studenților de inginerie). In. *Szakmódszertani és más emberközpontú tanulmányok* (Metodologii și alte studii antropocentrism) (ed. Karlovitz János Tibor, Torgyik Judit), Editura International Research Institute, Komárno, (2019), p. 185-192, ISBN 978-80-89691-52-4 doi: 10.18427/iri-2019-0036
6. **Harangus Katalin**. Tanárképzős hallgatók algoritmikus gondolkodásának empirikus vizsgálata (Cercetarea empirică privind gândirea algoritmică în educația pentru formarea profesorilor) In. *Elmélet és gyakorlat a neveléstudományok és szakmódszertanok köréből* (Teoria și practica din domeniul științelor educaționale și didactica specialității), (ed. Karlovitz János Tibor), Editura International Research Institute, Komárno, (2018), p. 236-241, ISBN 978-80-89691-52-4 doi: 10.18427/iri-2018-0031
7. **Harangus Katalin**. IKT eszközök hasznosulása a romániai magyar tannyelvű szakképzésben (Valorificarea TIC în educația profesională minoritară) In. *Válogatott tanulmányok a pedagógiai elmélet és szakmódszertanok köréből* (Eseuri selectate din domeniul teoria pedagogiei și didactica specialității) (ed. Karlovitz János Tibor), Editura International Research Institute, Komárno, Slovacia, (2017), p. 380-386, ISBN 978-80-89691-40-1 doi: 10.18427/iri-2017-0052

B6. Capitole de cărţi publicate în ţară la edituri recunoscute CNCSIS

1. **Harangus Katalin**. (2025). A tanárképzősök digitális kompetenciája elegendő-e tananyag készítéséhez? (Studenții de la DPPD au competențe digitale suficiente pentru a elabora materiale didactice?). In. *Anyanyelvoktatás – Eszmény és gyakorlat a pedagógusképzésben* (Predarea limbii materne. Idealul și practica în formarea profesorilor), (ed. Pletl Rita). Editura Ábel, Cluj-Napoca, p. 36-49. ISBN 978-973-114-340-8.
2. Horváth Zsófia-Irén, Szentes Erzsébet, **Harangus Katalin**, Az értékteremtés útján. In: Fazakas Noémi-Harangus Katalin-Kovács Gabriella-Nagy Imola-Suba Réka (szerk.):

„Nem a mennyiség, hanem a minőség a szellemi erőnek sarkalata”. – Köszöntőkötet Pletl Rita tiszteletére, Kolozsvár, Scientia Kiadó, 2023, p.23-28. ISBN 978-606-975-082-7

3. **Harangus Katalin**. Digitális tananyag szerepe a kompetenciafejlesztésben (Rolul curriculum-ului digital în dezvoltarea competențelor). In. *Anyanyelvoktatás – A pedagógusjelöltek köznevelési feladatokra való felkészítése* (Predarea limbii materne. Pregătirea studenților pentru pentru sarcini din învățământ), (ed. Pletl Rita). Editura Ábel, Cluj-Napoca, (2023), p. 81-94. ISBN 978-973-114-314-9.
4. **Harangus Katalin**. A digitális kompetencia fejlettségi szintje tanárképzős hallgatók körében (Nivelul de dezvoltare a competențelor digitale în rândul studenților participanți la pregătire psihopedagogică). In. *Anyanyelvoktatás – A pedagógusképzés próbatétele: nevelés és oktatás egyensúlyának megteremtése* (Predarea limbii materne. Problema formării cadrelor didactice: realizarea echilibrului între educație și formare), (ed. Pletl Rita). Editura Ábel, Cluj-Napoca, (2022), p. 81-94. ISBN 978-973-114-299-9.
5. **Harangus Katalin**. Az online alkalmazások eszköztárának hasznosítása a pedagógusképzésben (Aplicații online în formarea cadrelor didactice), In. *Anyanyelvoktatás. Problémafeltáró vizsgálatok – problémamegoldó törekvések* (Predarea limbii materne. Studii pentru exploatarea problemelor – eforturi de rezolvare a problemelor), (ed. Pletl Rita). Editura Ábel, Cluj-Napoca, (2021), p. 29-49, ISBN 978-973-114-287-6.
6. **Harangus Katalin**. Mérnök-tanárképzés kihívásai digitalizált világunkban (Provocările educației inginerești în rândul studenților participanți la pregătirea psihopedagogică într-o lume digitalizată), In. *Anyanyelvoktatás. Érdekegyeztetés és együttműködés közoktatás és tanárképzés között* (Predarea limbii maghiare. Cooperarea între învățământul preuniversitar și educație pentru formarea profesorilor), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2020), p. 112-123. ISBN 978-973-269-2.
7. **Harangus Katalin**. A komplex problémamegoldó képesség fejlettsége tanárképzős hallgatók körében (Nivelul de dezvoltare a capacității de rezolvare a problemelor complexe în rândul studenților), In. *Anyanyelvoktatás. A feladatmegoldástól a problémamegoldásig* (Predarea limbii maghiare. De la rezolvarea exercițiilor la soluționarea problemelor complexe), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2019), p. 66-77. ISBN 978-973-114-261-6.
8. Kovács Gabriella, **Harangus Katalin**. Kognitív műveletek alkalmazásának vizsgálata fordító szakos hallgatók körében (Investigația aplicării operațiilor cognitive în rândul studenților de la specializarea Traducere), In. *Anyanyelvoktatás. A feladatmegoldástól a problémamegoldásig* (Predarea limbii maghiare. De la rezolvarea exercițiilor la soluționarea problemelor complexe), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2019), p.78-85. ISBN 978-973-114-261-6.
9. **Harangus Katalin**. A problémamegoldó képesség vizsgálata a középiskolások és a tanárképzős hallgatók körében (Analiza capacității de rezolvare a problemelor în rîndul elevilor și studenților). In. *Anyanyelvoktatás. Új kihívások— a tudás fogalmának változása.* (Predarea limbii maghiare. Noi provocări – Schimbarea conceptului cunoașterii), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2018), p. 71-86, ISBN 978-973-114-251-7.
10. **Harangus Katalin**. Tatai Csilla, Sántha Ágnes, Kovács Réka Rozália, Az e-egészségügy lehetőségei és korlátai (E-sănătate: posibilități și limitări), In. *Egészségünk közös ügyünk* (Sănătatea noastră - cauza noastră comună), (ed. Tati Csilla, Kovács Réka Rozália), Editura Scientia, Cluj-Napoca, (2018), p. 160-169, ISBN 978-606-975-008-7.

11. Szentes Erzsébet, **Harangus Katalin**. IKT-s eszközök használata a tanulási folyamatban, továbbtanulással, elhelyezkedéssel kapcsolatos célok a szakközépiskolások körében (Utilizarea TIC în procesul de învățare, obiectivele privind continuarea studiilor, angajarea în rândul elevilor din liceul profesional), In. *Egészségünk közös ügyünk* (Sănătatea noastră - cauza noastră comună), (ed. Tati Csilla, Kovács Réka Rozália), Editura Scientia, Cluj-Napoca, (2018), p. 131-142, ISBN 978-606-975-008-7.
12. Sántha Ágnes, **Harangus Katalin**, Tatai Csilla, Szabadi Ernő, Kovács Réka Rozália. A munka és a magánélet egyensúlya a Maros megyei magyarok körében (Echilibrul carierei profesionale şi a vieţii private în rândul populaţiei maghiare din judeţul Mureş), In. *Egészségünk közös ügyünk* (Sănătatea noastră - cauza noastră comună), (ed. Tati Csilla, Kovács Réka Rozália), Editura Scientia, Cluj-Napoca, (2018), p. 170-180, ISBN 978-606-975-008-7.
13. Tatai Csilla, Sántha Ágnes, **Harangus Katalin**, Kovács Réka Rozália. A Maros megyei vidéki és városi lakosság egészségi állapotának és az egészségügyi szolgáltatásokkal való elégedettségének összehasonlító elemzése (Analiză comparativă a stării de sănătate și satisfacția față de serviciile de sănătate în rândul populației urbane și rurale din județul Mureș), In. *Egészségünk közös ügyünk* (Sănătatea noastră - cauza noastră comună), (ed. Tati Csilla, Kovács Réka Rozália), Editura Scientia, Cluj-Napoca, (2018), p. 181-190, ISBN 978-606-975-008-7.
14. **Harangus Katalin**. Az IKT eszközök vs. az e-learning a romániai magyar tannyelvű szakoktatásban (ICT vs. e-learning în învățământul profesional), In. *Anyanyelvoktatás – A magyar tannyelvű szakképzés jelene és jövőbeli kilátásai* (Predarea limbii materne – Educația profesională actuală în limba maternă și perspectivele viitoare), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2017), p. 36-50, ISBN 978-973-114-246-3.
15. Kátai Zoltán, **Harangus Katalin**. Szövegértelmezés vs. számítógépes gondolkodás a tanárképzős hallgatók körében (Interpretarea textului vs. gândire algoritmică în rândul studenților), In. *Anyanyelvoktatás – A magyar tannyelvű szakképzés jelene és jövőbeli kilátásai* (Predarea limbii materne – Educația profesională actuală în limba maternă și perspectivele viitoare), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2017), p. 85-95, ISBN 978-973-114-246-3.
16. **Harangus Katalin**. Algoritmikus gondolkodás: felfedezés vs. végrehajtás (Gândire algoritmică: descoperire vs. executare) In. *Anyanyelvoktatás. Adottságok és lehetőségek a magyar tannyelvű szakképzésben* (Predarea limbii materne – Aptitudini și oportunități ale educației profesionale minoritare), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2016), p. 58-68, ISBN 978-973-114-224-1.
17. **Harangus Katalin**. Információs és kommunikációs technológiák ismerete és fontosságuk a tanárképzésben (Importanţa dezvoltării competenţelor ICT în educaţia profesională în limba maternă) In. *Anyanyelvoktatás. A magyar tannyelvű szakközépiskolai oktatás helyzete* (Predarea limbii materne - Situaţia educaţiei în liceele tehnologice cu limba de predera maghiară), (ed. Pletl Rita), vol. 5, Editura Ábel, Cluj-Napoca, (2015), p. 38-61, ISBN 978-973-114-210-4.
18. **Harangus Katalin**. Anyanyelvi kompetenciák: jelen és jövő a mérések tükrében (Competenţele limbii materne: prezent şi viitor în oglinda măsurătorilor). In. *Anyanyelvoktatás – Irányok és törésvonalak* (Predarea limbii materne – Direcţii şi rupturi), (ed. Pletl Rita), Editura Ábel, Cluj-Napoca, (2014), p. 63-84, ISBN 978-973-114-190-9.

19. **Harangus Katalin**. A vizsgálati minta és statisztikai elemzése (Analiza eşantionului şi interpretarea statistică). In. *Anyanyelvoktatás – nyelvi horizontok* (Predarea limbii materne – orizonturi lingvistice), (ed. Pletl Rita), Editura Societatea Muzeului Ardelean: Scientia, Cluj-Napoca, (2012), p. 149-170, ISBN 978-606-8178-51-6, ISBN 978-973-1970-64-6.

C. Lucrări ştiinţifice publicate

C1.1. Lucrări ştiinţifice publicate în reviste cotate ISI

1. **Harangus Katalin,** Kakucs András. Mass-Measurement-based Automatization of the Engler-Viscometer. *Acta Polytechnica Hungarica,* Vol. 18, No. 5, (2021), 77-92. DOI: 10.12700/APH.18.5.2021.5.6, WOS:000508186400148 [**IF: 1.806**]
2. Bakos Levente, Dumitrașcu Dănuț Dumitru, **Harangus Katalin**. Human Factor Preparedness for Decentralized Crisis Management and Communication in Cyber-Physical Systems, *Sustainability*, 11(23), (2019), 6676 (p. 19). https://doi.org/10.3390/su11236676, WOS:000508186400148 [**IF: 2.59**]

C1.2. Lucrări ştiinţifice publicate în reviste indexate WOS și Scopus

1. Kakucs, A., **Harangus, K.** (2026). Enhancing Engineering Education Through Experimental Mechanics: A Wheatstone Bridge-Based Teaching Tool. In: Auer, M.E., Toth, P. (eds) Innovation via Collaborative Learning in Engineering Education. ICL 2025. Lecture Notes in Networks and Systems, vol 1848. Springer, Cham. https://doi.org/10.1007/978-3-032-20381-6_28
2. Horváth, ZI., Szentes, E., **Harangus, K.** (2024). First-Year and Graduate Teacher Training Students' Views on the Teaching Career. In: Auer, M.E., Cukierman, U.R., Vendrell Vidal, E., Tovar Caro, E. (eds) Towards a Hybrid, Flexible and Socially Engaged Higher Education. ICL 2023. Lecture Notes in Networks and Systems, vol 911. Springer, Cham. https://doi.org/10.1007/978-3-031-53382-2_30, WOS:001263969400030
3. **Harangus, K.,** Kakucs, A., Kovács, G. (2023). Mathematical Model for Estimating Mother Tongue Competencies and Learning Outcomes. In: Auer, M.E., Pachatz, W., Rüütmann, T. (eds) *Learning in the Age of Digital and Green Transition. ICL 2022. Lecture Notes in Networks and Systems*, vol 634, p. 769–776. Springer, Cham, ISBN: 978-3-031-26189-3. https://doi.org/10.1007/978-3-031-26190-9_80 [Scopus]
4. Kakucs, A., **Harangus, K.** (2023). Didactic Tool for Intuitive Random Process Visualization. In: Auer, M.E., Pachatz, W., Rüütmann, T. (eds) *Learning in the Age of Digital and Green Transition. ICL 2022. Lecture Notes in Networks and Systems*, vol 634, p. 649–656. Springer, Cham, ISBN: 978-3-031-26189-3. https://doi.org/10.1007/978-3-031-26190-9_68 [Scopus]
5. Horváth, ZI., Szentes, E., **Harangus, K.** (2023). The Relationships Between Career Image and Teaching Intention Among First-Year Engineering Teacher Training Students. In: Auer, M.E., Pachatz, W., Rüütmann, T. (eds) *Learning in the Age of Digital and Green Transition. ICL 2022. Lecture Notes in Networks and Systems*, vol 634, p. 544–552. Springer, Cham, ISBN: 978-3-031-26189-3. https://doi.org/10.1007/978-3-031-26190-9_57 [Scopus]
6. **Harangus Katalin**, Kovács Gabriella. Digital Competence of Language Teacher Trainees. A Comparative Study, *Acta Universitatis Sapientiae, Philologica,* 14(2), (2022), 1–14 [Scopus, Q3]

7. **Harangus Katalin**, Horváth Zsófia, Kovács Gabriella. Changes and Perspectives in Teacher Training Methodology, Acta Universitatis Sapientiae, Philologica, 13(2), (2021), 55–70, DOI: 10.2478/ausp-2021-0013 [Scopus, Q2]
8. Szentes Erzsébet, Horváth Zsófia-Irén, **Harangus Katalin**. The Role of Humour in Teaching: Teacher Training Students' Image of Teacher and Views on Teaching. *Acta Universitatis Sapientiae, Philologica*, 12(2) (2020), 84−98. DOI: 10.2478/ausp-2020-0014 [Scopus, Q3]
9. **Harangus Katalin**, Kátai Zoltán. Computational Thinking in Secondary and Higher Education, *Procedia Manufacturing*, [Elsevier], Volume 46, (2020), 615-622. https://doi.org/10.1016/j.promfg.2020.03.088 [Scopus, Q2], WOS:000582466200087
10. **Harangus Katalin**. Examining the relationships between problem-solving and reading comprehension skills. *New Trends and Issues Proceedings on Humanities and Social Sciences*. 6(5), (2019), 066–074. DOI: 10.18844/prosoc.v6i5.4375 WOS:000539484300008
11. Kovács Gabriella, **Harangus Katalin**. Translator Trainees' Reading Literacy, Problem Solving, and Translation Skills. A Comparative Study. *Acta Universitatis Sapientiae, Philologica*, 11, 3, (2019), 141−157. DOI: 10.2478/ausp-2019-0031 [Scopus Q4]
12. **Harangus Katalin,** Kátai Zoltán. Algorithmic Thinking vs. Text Comprehension*, Procedia Manufacturing*, [Elsevier], Volume 22, (2018), 1031-1037. https://doi.org/10.1016/j.promfg.2018.03.146 WOS:000456199200144 [Q2]
13. **Harangus Katalin**. Examining Computational Thinking through Logic Tasks, *The Turkish Online Journal of Educational Technology*, 3, (2018), 172-178, ISSN: 2146-7242. [Q4]
14. **Harangus Katalin,** Horváth Zsófia-Irén, Szentes Erzsébet. The specific situation of vocational education in hungarian language in Romania: ICT vs. e-learning, *Turkish Online Journal of Educational Technology,* Special Issue for IETC (2017), 818-825, ISSN: 2146-7242. [Scopus]
15. **Harangus Katalin,** Szentes Erzsébet. The Role of Information Technology and Labor Market Orientation in Vocational Training, *New Trends and Issues Proceedings on Humanities and Social Sciences*, Vol. 3, No. 3, (2017), 62-69, ISSN 2421-8030. DOI: http://dx.doi.org/10.18844/gjhss.v3i3.1615 WOS:000462228400009
16. **Harangus Katalin**, Kakucs András. Finite-difference solution using displacement potential function for plane stresses and displacements. *Procedia Technology*, [Elsevier], 12, (2014), 394-400, ISSN 2212-0173. doi: 10.1016/j.protcy.2013.12.505 WOS:000335391100057
17. Gálfi Botond, Száva János, Borbás Lajos, Szalai József, **Harangus Katalin**. Stand and preliminary testing results on disc-shape hardwood specimens obtained with video image corelation method. *9th Youth Symposium on Experimental Solid Mechanics*, Trieste, Italy, (2010), 9-12, ISBN 978-88-95940-30-4. [Scopus], WOS:000392625300002
18. Száva János, Pereţeanu Karol-Constantin, **Harangus Katalin**. New Testing Device for Time Dependent Glue Behaviour Analysis by mean of Holographic Interferometry. *Wood Structure and Properties '06*, Arbora Publishers, Zvolen, Slovakia, (2006), 409-411, ISBN-80-968869-4-3. WOS:000279590300073

C2. Lucrări ştiinţifice publicate în reviste indexate în baze de date internaţionale

1. Kakucs András, **Harangus Katalin**, Király Zsolt. (2025). Bűvös négyzet (Magic square), Műszaki Tudományos Közlemények, 23, p. 28-37. DOI: Magyar: https://doi.org/10.33895/mtk-2025.23.05 Angol: https://doi.org/10.33894/mtk-2025.23.05
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3. Nagy Zsuzsanna Timea, **Harangus Katalin.** Examining the mathematical thinking of disadvantaged students. *Journal of Applied Technical and Educational Sciences*, 11(4), (2021), 1-13, ArtNo: 289. https://doi.org/10.24368/jates.v11i4.289
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D. Traduceri de cărţi, capitole de cărţi, alte lucrări ştiinţifice

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E. Editare, coordonare de volume

1. (Fazakas Noémi, **Harangus Katalin**, Kovács Gabriella, Nagy Imola, Suba Réka), Nem a mennyiség, hanem a minőség a szellemi erőnek sarkalata. Köszöntőkötet Pletl Rita tiszteletére, Scientia, Cluj-Napoca, 2023, p. 272, ISBN 9786069750825
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F. Brevete de invenții și alte titluri de proprietate

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G. Contracte de cercetare

1. **2025:** *Gândirea orientată spre rezolvarea problemelor în educația inginerească: provocări și oportunități pentru viitorii profesioniști,* finanţator Domus Hungarica, Academia Maghiară de Ştiinţe, cercetare individuală.
2. **2024:** *Necesitatea schimbării mentalității în formarea cadrelor didactice: evaluarea competențelor digitale (etapa III.)*, finanţator Domus Hungarica, Academia Maghiară de Ştiinţe, cercetare individuală.
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5. **2021:** *Analiza vizualizării algoritmului bazat pe context în practica predării-învățării*, finanţator Domus Hungarica, Academia Maghiară de Ştiinţe, director proiect.
6. **2021:** *Creșterea eficienței transferului de cunoștințe cu metode moderne aplicate în educația tehnologică pentru formarea cadrelor didactice din domeniul științelor inginerești*, finanţator Domus Hungarica, Academia Maghiară de Ştiinţe.
7. **2019:** *Introducerea metodelor moderne în educația tehnologică pentru formarea cadrelor didactice din domeniul științelor inginerești,* finanţator Domus Hungarica, Academia Maghiară de Ştiinţe.
8. **2018-2019:** *Starea de sănătate mentală a studenţiilor din depresiunea carpatină.* finanţator Domus Hungarica, Academia Maghiară de Ştiinţe, membru în echipă.
9. **2017-2018:** *Situația socio-economică, starea de sănătate și satisfacția profesională a asistenților medicali din Transilvania,* finanţator Domus Hungarica, Academia Maghiară de Ştiinţe, membru în echipă.

10. **2017-2018** *Evaluarea capacității de rezolvare a problemelor complexe pe diferite arii curriculare (înțelegerea textului, compunerea textului, gândire matematică /computațională)*, finanţator IPC Cluj, membru în echipă.
11. **2015–2016** *Situaţia educaţiei profesionale în limba maternă: problema structurii şi participării (profesorilor şi elevilor) într-un sistem bilingv*, finanţator IPC Cluj, membru în echipă.
12. **2015–2016** *Hungarostudy - Transilvania 2015-2016 Evaluarea globală a stării de sănătate în rândul populaţiei maghiare din Transilvania*, finanţator IPC Cluj, membru în echipă.
13. **2013-2014** *Situaţia şi problematica învăţământului tehnic în limba maternă din perspectiva elevilor şi cadrelor didactice*, finanţator IPC Cluj, membru în echipă.
14. **2006-2009** *Studiul teoretic (prin metode cu elemente finite) şi practic (experimental) al protecţiilor ignifuge realizate cu vopsele intumescente*, finanțator IPC Cluj, membru în echipă.

H. Creaţia artistică

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III. RECUNOAŞTEREA

I. Premii, distincţii

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J. Citări

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K. Participări cu lucrări la manifestări ştiinţifice

- internaţionale

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2. **Harangus Katalin**, Kakucs András, *Algoritmusok felismerése és alkalmazása a problémamegoldásban* (Recunoașterea și utilizarea algoritmilor în rezolvarea problemelor)*,* III. Imre Sándor Konferencia, Budapesta, Ungaria, 27. noiembrie 2025.
3. Kakucs András, **Harangus Katalin**, *Enhancing Engineering Education Through Experimental Mechanics: A Wheatstone Bridge-Based Teaching Tool*, 28th Interactive Collaborative Learning and Engineering Pedagogy, Budapesta, Ungaria, 1-3 octombrie 2025.
4. **Harangus Katalin**, Kakucs András, *Digital Competence of Future Educators: Assessing the Skills of Teacher Training Students*, 9th International Academic Conference on Teaching, Learning and Education, Praga, Republica Cehă, 19-21. septembrie 2025.
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10. **Harangus Katalin,** Szentes Erzsébet, Horváth Zsófia-Irén, *Tanárképzős hallgatók felkészítése a digitális világ kihívásaira,* (Educating teacher training students for the challenges of the digital world), I. Imre Sándor Neveléstudományi Konferencia - Oktatás Egy Változó Világban (1st Imre Sándor International Conference On Pedagogy - Education In A Changing World), BME, Budapesta, Ungaria, 9-10 noiembrie 2023.
11. Szentes Erzsébet, Horváth Zsófia-Irén, **Harangus Katalin,** *A tanári pálya és a jó pedagógus ismérvei tanárképzős hallgatók szerint,* (The teaching career and the characteristics of a good pedagogue according to teacher training institutes), I. Imre Sándor Neveléstudományi Konferencia - Oktatás Egy Változó Világban (1st Imre

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30. **Harangus Katalin**. *Info-kommunikációs eszközök hasznosulása az oktatásban* (Utilizarea instrumentelor info-comunicare în educație), I. Szakképzés és Oktatás: Ma – Holnap konferencia. Fejlődés és partnerség, Budapesti Műszaki és Gazdaságtudományi Egytem, Budapest, Magyarország, 20-21 Noiembrie 2019.
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