

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

Numele și prenumele: GYÖRFI Ágnes

I. LISTA PUBLICAȚIILOR RELEVANTE

1. Á Györfi, L. Kovács, and L. Szilágyi. Brain tumor segmentation from multi-spectral mri records using a u-net cascade architecture. In 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC), volume paper no. 623, pages 1–6, 2023.
2. Á. Györfi, L. Kovács, and L. Szilágyi. A two-stage u-net approach to brain tumor segmentation from multi-spectral mri records. Acta Universitatis Sapientiae – Informatica, 14(2):223–247, 2022.
3. A. Györfi, Sz. Csaholczi, I.M. Pisak-Lukáts, L. Dénes-Fazakas, A. Köble, O. Shvets, Gy. Eigner, L. Kovács, and L. Szilágyi. Effect of spectral resolution on the segmentation quality of magnetic resonance imaging data. In 2022 IEEE 26th International Conference on Intelligent Engineering Systems (INES), pages 53–58, 2022
4. Györfi Á, Szilágyi L, Kovács L: A fully automatic procedure for brain tumor segmentation from multi-spectral MRI records using ensemble learning and atlasbased data enhancement. APPLIED SCIENCES 11(2):564, 2021
5. Köble A, Györfi Á, Csaholczi Sz, Surányi B, Dénes-Fazakas L, Kovács L, Szilágyi L: Identifying the most suitable histogram normalization technique for machine learning based segmentation of multispectral brain MRI data. AFRICON 2021, 6pp, in press.
6. Györfi Á, Csaholczi Sz, Fülöp T, Kovács L, Szilágyi L: Brain tumor segmentation from multi-spectral magnetic resonance image data using an ensemble learning approach. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020, Toronto, Kanada),
7. Györfi Á, Fülöp T, Kovács L, Szilágyi L: The effect of spectral resolution upon the accuracy of brain tumor segmentation from multi-spectral MRI data. IEEE 18th World Symposium on Applied Machine Intelligence and Informatics (SAMi 2020, Herl’any, Slovakia), pp. 325-328.
8. A. Györfi, L. Kovács, and L. Szilágyi. Brain tumor detection and segmentation from magnetic resonance image data using ensemble learning methods. In 2019 IEEE International Conference on Systems, Man and Cybernetics (SMC), pages 909–914, 2019.
9. Györfi, Á., Kovács, L., Szilágyi, L., A feature ranking and selection algorithm for brain tumor segmentation in multi-spectral magnetic resonance image data”, 41st Annual International Conference of IEEE EMBS, Berlin, Germany, 2019
10. Á. Györfi, L. Kovács and L. Szilágyi “Brain Tumour Segmentation from Multispectral MR Image Data Using Ensemble Learning Method ” Proc. Ibero-American Congress on Pattern Recognition (CIARP 2019, Havana), Lecture Notes in Computer Science, vol. 11896, pp. 326-335, 2019.

II. LISTA COMPLETĂ DE PUBLICAȚII, CREAȚII, INVENȚII

A. Teza de doctorat

Titlul tezei: Automatic detection and segmentation of brain tumors in multispectral MRI records

Conducătorul tezei: Dr. Szilágyi László, Dr. Kovács Levente

Calificativul obținut: Summa cum laude

B. Cărți publicate

C. Lucrări științifice publicate

C1. Lucrări științifice publicate în reviste cotate ISI

1. Györfi Á, Szilágyi L, Kovács L: A fully automatic procedure for brain tumor segmentation from multi-spectral MRI records using ensemble learning and atlasbased data enhancement. APPLIED SCIENCES 11(2):564, 2021

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

1. Á. Györfi, L. Kovács, and L. Szilágyi. A two-stage u-net approach to brain tumor segmentation from multi-spectral mri records. Acta Universitatis Sapientiae – Informatica, 14(2):223–247, 2022.
2. L. Szilágyi, D. Iclănzan, Z. Kapás, Zs. Szabó, Á. Györfi, L. Lefkovits Low and high grade glioma segmentation in multispectral brain MRI data Acta Universitatis Sapientiae, Informatica, 10, 1 (2018) 110–132 (Web of Knowledge)

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

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

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

C6. Lucrări științifice publicate în volumele manifestărilor științifice

1. Á Györfi, L. Kovács, and L. Szilágyi. Brain tumor segmentation from multi-spectral mri records using a u-net cascade architecture. In 2023 IEEE International Conference on Systems, Man, and Cybernetics (SMC), volume paper no. 623, pages 1–6, 2023.
2. A. Györfi, Sz. Csaholczi, I.M. Pisak-Lukáts, L. Dénes-Fazakas, A. Köble, O. Shvets, Gy. Eigner, L. Kovács, and L. Szilágyi. Effect of spectral resolution on the segmentation quality of magnetic resonance imaging data. In 2022 IEEE 26th International Conference on Intelligent Engineering Systems (INES), pages 53–58, 2022.
3. Köble A, Györfi Á, Csaholczi Sz, Surányi B, Dénes-Fazakas L, Kovács L, Szilágyi L: Identifying the most suitable histogram normalization technique for machine learning based segmentation of multispectral brain MRI data. AFRICON 2021, 6pp, in press.
4. Györfi Á, Csaholczi Sz, Fülöp T, Kovács L, Szilágyi L: Brain tumor segmentation from multi-spectral magnetic resonance image data using an ensemble learning approach. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2020, Toronto, Kanada),
5. Fülöp T, Györfi Á, Csaholczi Sz, Kovács L, Szilágyi L: Brain tumor segmentation from multi-spectral MRI data using cascaded ensemble learning. 15th IEEE Int'l Conference on System of Systems Engineering (SoSE 2020, Budapest), 6pp, 2020.
6. Fülöp T, Györfi Á, Surányi B, Kovács L, Szilágyi L: Brain tumor segmentation from MRI data using ensemble learning and multi-atlas. IEEE 18th World Symposium on Applied Machine Intelligence and Informatics (SAMI 2020, Herl'any, Slovakia), pp. 111-116, 2020.
7. Györfi Á, Fülöp T, Kovács L, Szilágyi L: The effect of spectral resolution upon the accuracy of brain tumor segmentation from multi-spectral MRI data. IEEE 18th World Symposium on Applied Machine Intelligence and Informatics (SAMI 2020, Herl'any, Slovakia), pp. 325-328.

8. A. Györfi, L. Kovács, and L. Szilágyi. Brain tumor detection and segmentation from magnetic resonance image data using ensemble learning methods. In 2019 IEEE International Conference on Systems, Man and Cybernetics (SMC), pages 909–914, 2019.
9. Á. Györfi, L. Kovács and L. Szilágyi “Brain Tumour Segmentation from Multispectral MR Image Data Using Ensemble Learning Method ” Proc. Ibero-American Congress on Pattern Recognition (CIARP 2019, Havana), Lecture Notes in Computer Science, vol. 11896, pp. 326-335, 2019.
10. Á. Györfi, Z. Karetka-Mezsei, D. Iclănzan, L. Kovács and L. Szilágyi, “A study on histogram normalization for brain tumour segmentation from multispectral MR image data,” Proc. Ibero-American Congress on Pattern Recognition (CIARP 2019, Havana), Lecture Notes in Computer Science, vol. 11896, pp. 375–384, 2019.
11. Kapás Z, Lefkovits L, Iclănzan D, Györfi Á, Iantovics BL, Lefkovits Sz, Szilágyi SM, Szilágyi L: Automatic brain tumor segmentation in multispectral MRI volumes using a random forest approach. 8th Pacific-Rim Symposium on Image and Video Technology (PSIVT 2017, Wuhan, Kína), Lecture Notes in Computer Science vol. 10749, pp. 137-149, 2018, ISBN 978-3-319-75785-8
12. Szabó Zs, Kapás Z, Lefkovits L, Györfi Á, Szilágyi SM, Szilágyi L: Automatic segmentation of low-grade brain tumor using a random forest classifier and Gabor features. 14th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2018, Huangshan, Kína), pp. 1106 – 1113, 2018, ISBN 978-1-5386-8097-1

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

E. Editare, coordonare de volume

F. Invenții

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

Membru, cercetător în granturi/proiecte:

1. Universitatea Óbuda din Budapesta, 2023. Proiect susținut de Programul de cercetare al Fundației Universității Óbuda (OE-EKIK, 1330/2023, Hungary) 100 000 000 HUF
2. „SOON - Social Network of Machines”, Programul Orizont 2020, Future and Emerging Technologies 11 L (FET) programme of the European Union through the ERA-NET Cofund funding scheme, Proiect CHIST-ERA. Valoare totală proiect: 1.259.197 Euro; ()
3. Orvosi képek diagnosztikai és terápiás célú szegmentálása multi- atlasz által megsegített eljárással Kutatási Programok Intézete (KPI), Director de proiect: Prof. dr. Szilágyi László, 2019-2020, 2022-2023
4. Development of new technologies based on fusion imaging for computerized 3D simulation of coronary flow and myocardial perfusion (UEFISCDI, România), PN-III-P2-2.1-BG-2016-0343, 460000 RON, Director de proiect: Prof. dr. Szilágyi Sándor, 2017-2018
5. Csővezeték rendszerek felismerése és szegmentálása alacsony felbontású 3D képi adatokban, Kutatási Programok Intézete (KPI), 14000 RON, Director de proiect: Prof. dr. Szilágyi László, 2017-2018

6. „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 Sapiientia (KPI), 7.000 RON, membru, Director de proiect: Prof. dr. Pletl Rita, 2013-2014.
7. Fundația Sapiientia – Instituția Programelor de Cercetare, Matematică discretă, Director de proiect: dr. Bege Antal, 2006-2007

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

J. Citări

K. Participări la conferințe naționale și internaționale

1. Györfi, Á., Kovács, L., Szilágyi, L., A feature ranking and selection algorithm for brain tumor segmentation in multi-spectral magnetic resonance image data”, 41st Annual International Conference of IEEE EMBS, Berlin, Germany, 2019
2. Vekov Géza, Györfi Ágnes, Kátai Zoltán, Differenciált programozás-oktatás a marosvásárhelyi Sapiientia EMTE-n (Metode diferențiate de predare a programării calculatoarelor la Universitatea Sapiientia), INFODIDACT, Conference in Informatic-didactics, Zamárdi, Ungaria, 15-16 Noiembrie 2012.
3. Vekov Géza, Györfi Ágnes, Kátai Zoltán: Differenciált programozás-oktatás a Sapiientia EMTE marosvásárhelyi karán (Metode diferențiate de predare a programării calculatoarelor în Universitatea Sapiientia, Facultatea din Târgu Mureș), MTNE 2014 (Ziua Științei Maghiare în Transilvania 2014), Conferință națională, Cluj-Napoca, 15 noiembrie 2014.

L. Alte realizări semnificative

L1. Alte articole:

L2. Softvere didactice semnificative:

Data, 19.09.2025.

Györfi
Ágnes

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