List of Publications

Patents:

[1] Additional optics equipped internal flashlight illuminator to mobile devices, role: inventor, under review (2016)

[2] Endoscope RGB LED light source with variable wavelength. University of Debrecen Technology Transfer Center, role: inventor, under review (2015)

Journals Papers:

[3] On Equal Values of Stirling Numbers, Revisited, Judit Ferenczik, László Kovács, And Ákos Pintér, under sending. (2015)

[4] A. Hajdu, L. Hajdu, A. Jonas, L. Kovacs, and H. Toman: *Generalizing the majority voting scheme to spatially constrained voting*, IEEE Transactions on Image Processing, Volume: PP, Issue: **99**, DOI: 10.1109/TIP.2013.2271116, 2013. IF: 3.042

[5] R. J. Qureshi, L. Kovacs, B. Harangi, B. Nagy, T. Peto, A. Hajdu: Combining algorithms for automatic detection of optic disc and macula in fundus images, *Computer Vision and Image Understanding (CVIU)* **116**, (2012), 138–145, IF=2.404, 5IF= 2.730.

Conference Proceedings Articles:

[6] A. Hajdu, H. Toman, L. Kovacs, L. Hajdu: Composing ensembles of object detectors under execution time constraint, *23rd International Conference on Pattern Recognition (ICPR 2016)*, Cancun, Mexico, 2016, 6 pages, accepted.

[7] L. Kovacs, S. Petr, L. Riha: HPC GPU/CPU társkártyákkal támogatott fotorealisztikus 3D CT vizualizáció, *Eight Hungarian Conference on Computer Graphics and Geometry*, Budapest, Hungary, **2016**

[8] Kovács László, Pintér Ákos: Stirling számok vizsgálata HPC környezetben, *Tavaszi Szél Konferencia 2015, Doktoranduszok Országos Szövetsége*. (2015)

[9] Laszlo Kovacs: 3D Visualisation from CT, Summer of High Performance Copmuting program (SoHPC) Medical image segmentation and visualization Project, BSC – Barcelona, IT4I Natinal Supercomputing Center – Ostrava, PRACE (2015)

[10] Janos Toth, Laszló Kovacs, Balazs Harangi, Csaba Kiss, Andras Mohacsi, Zoltan Orosz, Andras Hajdu: An Online Benchmark System for Image Processing Algorithms, *5th IEEE International Conference on Cognitive Infocommunications (CogInfoCom 2014)*, Vietri sul Mare, Italy, 2014, *5th IEEE International Conference on COGNITIVE INFOCOMMUNICATIONS,* 2014. pp. 377-382. (2014)

[11] A. Hajdu, L. Hajdu, L. Kovacs, H. Toman: Diversity measures for majority voting in the spatial domain, 8*th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2013)*, Salamanca, Spain, 2013, *Lecture Notes in Computer Science* **8073**: pp. 314-323. (2013)

[12] H. Toman, L. Kovacs, A. Jonas, L. Hajdu, A. Hajdu: Generalized weighted majority voting with an application to algorithms having spatial output, *7th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2012)*, Salamanca, Spain, 2012, Volume Part II, *Lecture Notes in Computer Science* **7209**: pp. 56-67. (2012)

[13] H. Toman, L. Kovacs, A. Jonas, L. Hajdu, A. Hajdu: A generalization of majority voting scheme for medical image detectors, *6th International Conference on Hybrid Artificial Intelligence Systems (HAIS)*, Wroclaw, Poland, in *Lecture Notes in Artificial Intelligence* **6679/2:** pp.189-196. (2011)

[14] L. Kovacs, B. Harangi, B. Nagy, R.J. Qureshi, A. Hajdu: Gráf alapú vakfolt és sárgafolt detektálás retina felvételeken, *8th Conference of the Hungarian Association for Image Processing and Pattern Recognition*, (KÉPAF 2011) Szegedi Egyetem, Szeged, 329-341, 2011.

[15] L. Kovács, B. Nagy: Látógödör automatikus detektálása digitális retina képeken algoritmusok kombinálásával, XXX. Jubileumi OTDK Informatika Tudományi Szekció, Budapest, Magyaroszág, 2011, 87.
[16] L. Kovacs, R. J. Qureshi, B. Nagy, B. Harangi, A. Hajdu: Graph based detection of optic disc and fovea in retinal images, *4th IEEE International Workshop on Soft Computing Applications (SOFA)*, Arad, Romania, 2010, 143-148.
[17] Rashid Jalal Qureshi, Laszlo Kovacs, Brigitta Nagy, Balazs Harangi, Andras Hajdu: Automatic detection of the fovea and optic disk in digital retinal images by combining algorithms, 8th *International Conference on Applied Informatics* (*ICAI)*, Eger, Hungary, January 27–30, 2010. Vol. 1. pp. 175–184.

Posters:
[18] L. Kovacs: Applications of the High Performance Computing in Medical Imaging and Visualization, *The seventh International HPC summer school on HPC Challenges in Computer Sciences (IHPCSS),* Ljubljana, Slovenia, 2016.
[19] Laszlo Kovacs, Lajos Hajdu: High Performance Computing With Mathematical Applications, 1st Winter School of PhD Students in Informatics and Mathematics, University of Pannonia, Veszprém, Hungary, 2013. (Best poster award, 3rd place.)

Abstracts:
[20] L. Kovacs: Photorealistic 3D CT visualization supported by HPC GPU and CPU coprocessors, GPU Day 2016 - The Future Of Many-Core Computing In Science, Budapest, Hungary, 2016.
[21] Kovács László, Pintér Ákos: Stirling számok vizsgálata HPC környezetben, *Tavaszi Szél Konferencia 2015, Doktoranduszok Országos Szövetsége*. (2015)
[22] Janos Toth, Laszlo Kovacs, Balazs Harangi, Csaba Kiss, Andras Mohacsi, Zoltan Orosz, Andras Hajdu: An Online Benchmark System for Image Processing Algorithms, *5th IEEE International Conference on Cognitive Infocommunications (CogInfoCom 2014)*, Vietri sul Mare, Italy, 2014, *5th IEEE International Conference on COGNITIVE INFOCOMMUNICATIONS,* 2014. pp. 377-382. (2014)
[23] Laszlo Kovacs, Lajos Hajdu: High Performance Computing With Mathematical Applications, 1st Winter School of PhD Students in Informatics and Mathematics, University of Pannonia, Veszprém, Hungary, 2013.

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[24] R. J. Qureshi, T. Peto, L. Kovács, B. Nagy, B. Harangi, A. Hajdu: Detection of the optic disc and the macula through combining algorithms, University of Debrecen, Faculty of Informatics, Preprints No. 380 (Technical Reports No. 7/2010.)

Thesis:
[25] Kovács László: Bináris digitális képfeldolgozás, Diszkrét megközelítés (translation, original title: Binary Digital Image Processing, A Discrete Approach – Academic Press), Faculty of Informatics, University of Debrecen, (Lectors: Pákozdi Andrea, Hajdu Lajos), (2014)
[26] Kovács László, Nagy Brigitta: Fovea lokalizálása fundus felvételeken egyesített rendszerrel, Faculty of Informatics, University of Debrecen, (supervisors: Hajdu András, Tomán Henrietta), (2010)