Konstantinos Delibasis

Current position

Assistant professor, [Department of Computer Science and Biomedical Informatics](#), University of Thessaly.

Research Interests

- Processing and Analysis of Biomedical images
- Computer vision techniques for video processing

Education

PhD in Medical Image Analysis, [Dept. of Biomedical Physics and Bioengineering](#), University of Aberdeen, Scotland
MSc in Medical Physics, Dept. of Biomedical Physics and Bioengineering, University of Aberdeen, Scotland
First Degree: Physics, University of Athens, Greece

Links

[scholar.google](#)
[DBLB](#)

Undergraduate Courses

- Introduction to Biomedical Techmology ([1](#))
- Commputer GraphicsB ([1](#))
- Medical Imaging Systems ([1](#))
- Biomedical Image Analysis ([1](#))
- Digital Biosignal Processing ([1](#))
- Introduction to Information Science (2)
- Information Science II (2)
- Digital Signal Processing (3)
- Digital Image Processing (3)
- Simulation of Biological SystemsB ([1](#))
- Signals and SystemsB ([1](#))
- Physics ([1](#))

1. Dept. of Computer Science and Biomedical Informatics, Univ. of Thessaly
2. Dept. of Regional and Economic Development, Univ. of Central Greece
3. Technological Educational Institute of Lamia, Greece

Scientific Publications

2015

Delibasis, K. K., Goudas, T., & Maglogiannis, I. (2015, July). A novel hybrid approach for human silhouette segmentation. In Proceedings of the *8th ACM International Conference on PErvasive Technologies Related to Assistive Environments* (p. 79). ACM. ACM

K Kottari, **K Delibasis**, Multi-pose Volume Reconstruction Across Arbitrary Trajectory from Multiple Fisheye Cameras in *Artificial Intelligence Applications and Innovations, 2015 IFIP Advances in Information and Communication Technology*, vol. 459, pp. 29-44 Springer

K Delibasis, K Kottari, I Maglogiannis, Automated Detection of Streaks in Dermoscopy Images in *Artificial Intelligence Applications and Innovations, IFIP Advances in Information and Communication Technology*, Vol. 458, pp 45-60 Springer

Maglogiannis, I., & **Delibasis, K. K.** (2015). Enhancing classification accuracy utilizing globules and dots features in digital dermoscopy. *Computer methods and programs in biomedicine*, 118(2), 124-133. Elsevier

2014

K. Delibasis, A. Kechriniotis, "A New Formula for Bivariate Hermite Interpolation on Variable Step Grids and Its Application to Image Interpolation." *IEEE Transactions on Image Processing*, 23.7 (2014): 2892-2904. IEEE Xplore

Delibasis, Konstantinos K., Vassilis P. Plagianakos, and Ilias Maglogiannis. "Pose recognition in indoor environments using a fisheye camera and a parametric human model." *Computer Vision Theory and Applications (VISAPP), 2014 International Conference on*. Vol. 2. IEEE, 2014. IEEE Xplore

Kottari, **K., Delibasis**, K., Plagianakos, V., & Maglogiannis, I. (2014). Fish-Eye Camera Video Processing and Trajectory Estimation Using 3D Human Models. In *Artificial Intelligence Applications and Innovations* (pp. 385-394). Springer Berlin Heidelberg. Link

Delibasis, K. K., Plagianakos, V. P., & Maglogiannis, I. (2014). Refinement of human silhouette segmentation in omni-directional indoor videos. *Computer Vision and Image Understanding*, 128, 65-83. Elsevier

Delibasis, K. K., Georgakopoulos, S., Plagianakos, V., & Maglogiannis, I. (2014). Calculation of Complex Zernike Moments with Geodesic Correction for Pose Recognition in Omni-directional Images. In *Artificial Intelligence Applications and Innovations* (pp. 375-384). Springer Berlin Heidelberg. Link

Delibasis, K. K., Asvestas, P. A., Kechriniotis, A. I., & Matsopoulos, G. K. (2014). An implicit evolution scheme for active contours and surfaces based on IIR filtering. *Computers in biology and medicine*, 48, 42-54 Elsevier , pdf at Ypatia

Delibasis, K. K., Plagianakos, V. P., & Maglogiannis, I. (2014, January). Pose recognition in indoor environments using a fisheye camera and a parametric human model. In *Computer Vision Theory and Applications (VISAPP), 2014 International Conference on* (Vol. 2, pp. 470-477). IEEE. Springer

Delibasis, K. K., Georgakopoulos, S., Plagianakos, V., & Maglogiannis, I. (2014). Calculation of Complex Zernike Moments with Geodesic Correction for Pose Recognition in Omni-directional Images. In *Artificial Intelligence Applications and Innovations (pp. 375-384)*. Springer Berlin Heidelberg. Springer

Maglogiannis, I., **Delibasis, K.**, Kosmopoulos, D., Goudas, T., & Doukas, C. (2014). Activity recognition in assistive environments: The STHENOS approach. In <i (pp. 525-536). Springer International Publishing. Springer

2013

Korfiatis, V. C., Asvestas, P. A., **Delibasis, K. K.**, & Matsopoulos, G. K. (2013). A classification system based on a new wrapper feature selection algorithm for the diagnosis of primary and secondary polycythemia. *Computers in biology and medicine*, 43(12), 2118-2126. Elsevier

Delibasis, K. K., Plagianakos, V. P., Goudas, T., & Maglogiannis, I. (2013, November). Human segmentation and pose recognition in fish-eye video for assistive environments. In *Bioinformatics and Bioengineering (BIBE), 2013 IEEE 13th International Conference on* (pp. 1-5). IEEE. IEEE Xplore

Delibasis, K. K., Kechriniotis, A., & Maglogiannis, I. (2013). A novel tool for segmenting 3D medical images based on generalized cylinders and active surfaces. *Computer methods and programs in biomedicine*, 111(1), 148-165. Elsevier

Maglogiannis, I., **Delibasis, K. K.**, Goudas, T., Prentza, A., Malamateniou, F., & Vassilacopoulos, G. (2013, June). Video segmentation of moving humans for assistive environments. In *ICIMTH* (pp. 179-182). Google Books

Delibasis, K. K., Goudas, T., Plagianakos, V. P., & Maglogiannis, I. (2013, May). Fisheye

camera modeling for human segmentation refinement in indoor videos. In *Proceedings of the 6th International Conference on PErvasive Technologies Related to Assistive Environments, PETRA 2013* (p. 37). ACM. [ACM](#)

Delibasis, K. K., Plagianakos, V. P., & Maglogiannis, I. (2013). Real Time Indoor Robot Localization Using a Stationary Fisheye Camera. In *Artificial Intelligence Applications and Innovations* (pp. 245-254). Springer Berlin Heidelberg. [Elsevier](#)

Delibasis, K. K., Kechriniotis, A., & Maglogiannis, I. (2013). On centered and compact signal and image derivatives for feature extraction. In *Artificial Intelligence Applications and Innovations* (pp. 318-327). Springer Berlin Heidelberg. [Springer](#)

2012

Delibasis, K. K., Kechriniotis, A., & Assimakis, N. D. (2012). New closed formula for the univariate Hermite interpolating polynomial of total degree and its application in medical image slice interpolation. *Signal Processing, IEEE Transactions on*, 60(12), 6294-6304. [IEEE Xplore](#)

Delibasis, K. K., Kechriniotis, A. I., Assimakis, N. D., Tassani, S., & Matsopoulos, G. K. (2012, August). Hermite Kernels for slice interpolation in medical images. In *Engineering in Medicine and Biology Society (EMBC), 2012 Annual International Conference of the IEEE* (pp. 4369-4373). IEEE. [IEEE Xplore](#)

Kechriniotis, A. I., **Delibasis, K. K.**, & Tsonos, C. A. (2012). New bilinear equations for the solutions of Dirac equation in presence of a general electromagnetic field *arXiv preprint*(No. arXiv: 1208.2546). [arXiv](#)

Kechriniotis, A. I., Tsonos, C. A., **Delibasis, K. K.**, Tsigaridas, G. N. (2012). On the correspondence between the solutions of Dirac equation and electromagnetic 4-potentials. *arXiv preprint* arXiv:1208.2546. [arXiv](#)

Kechriniotis, A. I., **Delibasis, K. K.**, Tsonos, C., & Petropoulos, N. (2012). A new parallel polynomial division by a separable polynomial via hermite interpolation with applications, pp. 770-781. *Electronic Journal of Linear Algebra*, 23(1), 54. [Research Gate](#)

Delibasis, K. K., Tassani, S., Asvestas, P., Kechriniotis, A. I., & Matsopoulos, G. K. (2013). A Fourier-based implicit evolution scheme for active surfaces, for object segmentation in volumetric images. Measurement Science and Technology, 24(7), 074021. [Research Gate](#)

KK Delibasis, S Tassani, P Asvestas, AI Kechriniotis, GK Matsopoulos A Fourier-based implicit evolution scheme for active surfaces, for object segmentation in volumetric images

Imaging Systems and Techniques (IST), 2012 IEEE International Conference on ...

Christodoulidis, A., **Delibasis, K. K.**, & Maglogiannis, I. (2012, June). Near real-time human silhouette and movement detection in indoor environments using fixed cameras. In *Proceedings of the 5th International Conference on PErvasive Technologies Related to Assistive Environments* PETRA 2912 (p. 1). ACM. ACM

Kechriniotis, A. I., **Delibasis, K. K**., Tsonos, C., & Petropoulos, N. (2012). A Nnew parallel polynomial division by a separable polynomial via hermite interpolation with applications. *Electronic Journal of Linear Algebra*, 23, 770-781. ELE

2011

Kechriniotis, A. I., Delibasis, K. K., Tsonos, C., & Petropoulos, N. (2011). A new closed formula for the Hermite interpolating polynomial with applications on the spectral decomposition of a matrix. arXiv preprint arXiv:1112.4769. arXiv

Delibasis, K. K., Asvestas, P. A., & Matsopoulos, G. K. (2011). Automatic point correspondence using an artificial immune system optimization technique for medical image registration. Computerized medical imaging and graphics, 35(1), 31-41.Elsevier

2010

Delibasis, K., Asvestas, P. A., & Matsopoulos, G. K. (2010). Multimodal genetic algorithms-based algorithm for automatic point correspondence. *Pattern Recognition*, 43(12), 4011-4027.Elsevier

Delibasis, K. K., Kechriniotis, A. I., Tsonos, C., & Assimakis, N. (2010). Automatic model-based tracing algorithm for vessel segmentation and diameter estimation. *Computer methods and programs in biomedicine*, 100(2), 108-122. Elsevier

Kechriniotis, A. I., & Delibasis, K. K. (2010). On Generalizations of Gr uss Inequality in Inner Product Spaces and Applications. Journal of Inequalities and Applications, Aβ a, 1, 4. PDF

2009

Delibasis, K. K., Asvestas, P., Matsopoulos, G. K., Zoulias, E., & Tseleni-Balafouta, S. (2009). Computer-aided diagnosis of thyroid malignancy using an artificial immune system classification algorithm. Information Technology in Biomedicine, IEEE Transactions on, 13(5), 680-686.">

Delibasis, K. K., Asvestas, P., Matsopoulos, G. K., Economopoulos, T., & Assimakis, N. (2009, June). A real time eye-motion monitoring system. In Systems, Signals and Image Processing, 2009. *IWSSIP 2009. 16th International Conference on* (pp. 1-5). IEEE. IEEE Xplore

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Matsopoulos, G. K., Asvestas, P. A., **Delibasis, K. K.**, Mouravliansky, N. A., & Zeyen, T. G. (2008). Detection of glaucomatous change based on vessel shape analysis. *Computerized Medical Imaging and Graphics*, 32(3), 183-192. Research Gate