Curriculum Vitae

Doc. Ing. Radim Kolář, Ph.D., born 7. 7. 1975 in Brno.

Present positions:

Associate Professor, Vice-Head of Department of Biomedical Engineering, Brno University of Technology, Czech Republic.

Education:

1998 - MSc in Automatic, Control and Measurement, Faculty of Electrical Engineering and Communication, Brno University of Technology (FEEC BUT).

2002 - Ph.D. at FEEC BUT; Ph.D. theses: "Methods for preprocessing of ultrasound tomograms".

2009 - Associate Professor at FEEC BUT. Habilitation process completed in July 2009; topic: 'Methods for image analysis and pattern recognition - Application to early glaucoma diagnosis'.

Research fields:

Image processing, analysis and restoration in biomedical applications.
Imaging using optical coherence tomography.
Retinal microscopic imaging.
Classification, pattern recognition, machine learning in biomedical applications.

Teaching activities:

Digital signal and image processing.
Medical diagnostic technology.
Microscopic technology.

Project leader:

2003 – 2005, GP102/03/P153: Processing and analysis of 3D ophthalmologic image data for improvement of glaucoma diagnosis

2003 – 2004, KJB2813303: Speckle analysis and elimination in 3D medical ultrasound images

Participation at selected projects:

2002 – 2004, GAČR GA102/02/0890: Analysis of medical ultrasound data with specialization to 3D imaging in cardiology

2005 – 2011, MŠMT 1M0572: Data, Algorithms a Decision making, research center

2006 – 2007, EU: EVICAB - European Virtual Campus for Biomedical Engineering

2009 – 2011, GAČR GA102/09/1690: Increasing of diagnostic value in dynamic contrast enhanced imaging using MRI and ultrasonography in medicine

2012 – 2015, MŠMT, Security and defense - Equipment for acquisition and recognition of iris and retina

Scientometrics:

Author and co-author of 64 papers published in ISI indexed journals with 204 citations and H-index = 8 according to Web of Science.

Author and co-author of 63 papers published in Scopus indexed journals with 275 citations and H-index = 8 according to Scopus.

Publications:

Radim Kolar is author or co-author of 14 papers in impacted journals, 11 paper in peer-reviewed journal, more than 66 conference papers, one chapter in book and two study textbooks.

Curriculum Vitae

Selected papers:

Štohanzlová, P., Kolář, R. Tissue perfusion modelling in optical coherence tomography. Biomedical Engineering Online, 2017, vol. 16, no. 1, pp. 1-16. IF 1.382

Kolář, R.; Tornow, R.; Odstrčilík, J.; Liberdová, I. Registration of retinal sequences from new video- ophthalmoscopic camera. Biomed Eng Online, 2016, vol. 15, no. 57, pp. 1-17. IF 1.38

Mézl, M.; Jiřík, R.; Harabiš, V.; Kolář, R.; Standara, M.; Nylund, K.; Gilja, O.; Taxt, T. Absolute ultrasound perfusion parameter quantification of a tissue- mimicking phantom using bolus tracking. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, vol. 62, no. 5, pp. 983-987. IF 2.287

Odstrčilík, J.; Kolář, R.; Tornow, R.; Jan, J.; Budai, A.; Mayer, M.; et al. Thickness related textural properties of retinal nerve fiber layer in color fundus images. Computerized Medical Imaging and Graphics, 2014, vol. 38, no. 6, pp. 508-516. IF 1.385

Kolář, R.; Tornow, R.; Laemmer, R.; Odstrčilík, J.; Gazárek, J.; Jan, J.; et al. Analysis of Visual Appearance of Retinal Nerve Fibers in High Resolution Fundus Images: A Study on Normal Subjects. Computational and Mathematical Methods in Medicine, 2013, vol. 2013, no. 12, p. 1-10. IF 0.791

Kolář, R.; Harabiš, V.; Odstrčilík, J. Hybrid retinal image registration using phase correlation. Imaging Science Journal, 2013, vol. 61, no. 4, p. 269-384. IF 0.506