فهرست موضوعات پيشنهادي

- 1. Watermarking in images
- 2. Hardware image processing
- 3. Endoscopy Capsule
- 4. Histopathology images
- 5. Ultrasound images
- 6. Angiograms
- 7. Camera sensor network
- 8. Hardware implementation of image denoising
- 9. Image segmentation
- 10. Image search and retrieval
- 11. Image classification

1. Watermarking in images

- a) Mohrekesh, M., Azizi, S., Shirani, S., Karimi, N., & Samavi, S. (2018). Hierarchical watermarking framework based on analysis of local complexity variations. *Multimedia Tools and Applications*, 77(23), 30865-30890.
- b) Jamali, Maedeh, et al. "Adaptive image watermarking using human perception based fuzzy inference system." *Journal of Intelligent & Fuzzy Systems*Preprint (2018): 1-20.
- c) Fazlali, Hamid R., et al. "Adaptive blind image watermarking using edge pixel concentration." *Multimedia Tools and Applications* 76.2 (2017): 3105-3120.
- d) Etemad, Elham, et al. "Robust image watermarking scheme using bit-plane of hadamard coefficients." *Multimedia Tools and Applications* 77.2 (2018): 2033-2055.
- e) Rashid, Aaqib. "Digital watermarking applications and techniques: A brief review." *International Journal of Computer Applications Technology and Research* 5.3 (2016): 147-150.
- f) Sadreazami, Hamidreza, M. Omair Ahmad, and M. N. S. Swamy. "Multiplicative watermark decoder in contourlet domain using the normal inverse Gaussian distribution." *IEEE Transactions on Multimedia* 18.2 (2016): 196-207.
- g) Rashid, Aaqib. "Digital watermarking applications and techniques: A brief review." *International Journal of Computer Applications Technology and Research* 5.3 (2016): 147-150.

2. Hardware image processing:

- a) HosseinKhani, Zohreh, et al. "Real-time removal of impulse noise from MR images for radiosurgery applications." *International Journal of Circuit Theory and Applications* (2019).
- b) Luo, Wenbin. "Efficient removal of impulse noise from digital images." *IEEE Transactions on Consumer Electronics* 52.2 (2006): 523-527.
- c) Pang, Ke, et al. "Adaptive Partition-Cluster-Based Median Filter for Random-Valued Impulse Noise Removal." *Journal of Circuits, Systems and Computers* 27.07 (2018): 1850110.
- d) HosseinKhani, Zohreh, et al. "Adaptive Real-Time Removal of Impulse Noise in Medical Images." *Journal of medical systems* 42.11 (2018): 216.
- e) MA, Balafar. "New spatial based MRI image de-noising algorithm." *Artif Intell Rev doi* 10 (2011).

3. Endoscopy Capsule

- a) Hajabdollahi, Mohsen, et al. "Segmentation of Bleeding Regions in Wireless Capsule Endoscopy for Detection of Informative Frames." *arXiv preprint arXiv:1808.07746* (2018).
- b) Khorsandi, M. Amin, et al. "Hardware image assessment for wireless endoscopy capsules." 2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). IEEE, 2016.
- c) Yuan, Yixuan, Baopu Li, and Max Q-H. Meng. "Bleeding frame and region detection in the wireless capsule endoscopy video." *IEEE journal of biomedical and health informatics* 20.2 (2016): 624-630.
- d) Yuan, Yixuan, Baopu Li, and Max Q-H. Meng. "Improved bag of feature for automatic polyp detection in wireless capsule endoscopy images." *IEEE Transactions on automation science and engineering* 13.2 (2016): 529-535.
- e) Akbari, Mojtaba, et al. "Classification of Informative Frames in Colonoscopy Videos Using Convolutional Neural Networks with Binarized Weights." 2018 40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). IEEE, 2018.
- f) Akbari, Mojtaba, et al. "Adaptive specular reflection detection and inpainting in colonoscopy video frames." 2018 25th IEEE International Conference on Image Processing (ICIP). IEEE, 2018.
- g) Karapetyan, Gevorg, and Hakob Sarukhanyan. "Automatic detection and concealment of specular reflections for endoscopic images." *Ninth International Conference on Computer Science and Information Technologies Revised Selected Papers*. IEEE, 2013.

4. Histopathology images

- a) Paul, Angshuman, and Dipti Prasad Mukherjee. "Gland segmentation from histology images using informative morphological scale space." *2016 IEEE International Conference on Image Processing (ICIP)*. IEEE, 2016.
- b) Xu, Yan, et al. "Gland instance segmentation using deep multichannel neural networks." *IEEE Transactions on Biomedical Engineering* 64.12 (2017): 2901-2912.
- c) Singh, Malay, et al. "Gland segmentation in prostate histopathological images." *Journal of medical imaging* 4.2 (2017): 027501.
- d) Chen, Hao, et al. "DCAN: deep contour-aware networks for accurate gland segmentation." *Proceedings of the IEEE conference on Computer Vision and Pattern Recognition*. 2016.
- e) Sirinukunwattana, Korsuk, et al. "Gland segmentation in colon histology images: The glas challenge contest." *Medical image analysis* 35 (2017): 489-502.
- f) Peng, Binbin, et al. "Fully Convolutional Neural Networks for Tissue Histopathology Image Classification and Segmentation." *2018 25th IEEE International Conference on Image Processing (ICIP)*. IEEE, 2018.
- g) Mahmood, Faisal, et al. "Deep Adversarial Training for Multi-Organ Nuclei Segmentation in Histopathology Images." *arXiv preprint arXiv:1810.00236* (2018).

5. Ultrasound images

- a) Rueda, Sylvia, et al. "Evaluation and comparison of current fetal ultrasound image segmentation methods for biometric measurements: a grand challenge." *IEEE Transactions on medical imaging* 33.4 (2014): 797-813.
- b) Ciurte, Anca, et al. "Semi-supervised segmentation of ultrasound images based on patch representation and continuous min cut." *PloS one* 9.7 (2014): e100972.
- c) Dahdouh, Sonia, et al. "Segmentation of embryonic and fetal 3D ultrasound images based on pixel intensity distributions and shape priors." *Medical image analysis* 24.1 (2015): 255-268.
- d) Li, Jing, et al. "Automatic fetal head circumference measurement in ultrasound using random forest and fast ellipse fitting." *IEEE journal of biomedical and health informatics* 22.1 (2018): 215-223.
- e) Ravishankar, Hariharan, et al. "Hybrid approach for automatic segmentation of fetal abdomen from ultrasound images using deep learning." *2016 IEEE 13th International Symposium on Biomedical Imaging (ISBI)*. IEEE, 2016.
- f) Perez-Gonzalez, J. L., et al. "Automatic fetal head measurements from ultrasound images using optimal ellipse detection and texture maps." VI Latin American Congress on Biomedical Engineering CLAIB 2014, Paraná, Argentina 29, 30 & 31 October 2014. Springer, Cham, 2015.
- g) van den Heuvel, Thomas LA, et al. "Automated measurement of fetal head circumference using 2D ultrasound images." *PloS one* 13.8 (2018): e0200412.

6. Angiograms

- a) Nasr-Esfahani, Ebrahim, et al. "Segmentation of vessels in angiograms using convolutional neural networks." *Biomedical Signal Processing and Control* 40 (2018): 240-251.
- b) Zai, Sammer, and Asad Abbas. "An Effective Enhancement and Segmentation of Coronary Arteries in 2D Angiograms." 2018 International Conference on Smart Computing and Electronic Enterprise (ICSCEE). IEEE, 2018.
- c) Jo, Kyungmin, et al. "Segmentation of the Main Vessel of the Left Anterior Descending Artery Using Selective Feature Mapping in Coronary Angiography." *IEEE Access* 7 (2019): 919-930.
- d) Fazlali, Hamid R., et al. "Vessel region detection in coronary X-ray angiograms." 2015 IEEE International Conference on Image Processing (ICIP). IEEE, 2015.
- e) Nasr-Esfahani, Ebrahim, et al. "Segmentation of vessels in angiograms using convolutional neural networks." *Biomedical Signal Processing and Control* 40 (2018): 240-251.
- f) Fazlali, Hamid R., et al. "Robust catheter identification and tracking in X-ray angiographic sequences." 2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). IEEE, 2015.

7. Camera Sensor Coverage

- a) Wang, Yi, and Guohong Cao. "Barrier coverage in camera sensor networks." *Proceedings of the Twelfth ACM International Symposium on Mobile Ad Hoc Networking and Computing*. ACM, 2011.
- b) Li, Mo, Zhenjiang Li, and Athanasios V. Vasilakos. "A survey on topology control in wireless sensor networks: Taxonomy, comparative study, and open issues." *Proceedings of the IEEE* 101.12 (2013): 2538-2557.
- c) Hooshmand, Mohsen, et al. "Visual sensor network lifetime maximization by prioritized scheduling of nodes." *Journal of Network and Computer Applications* 36.1 (2013): 409-419.
- d) Fooladgar, Fahimeh, et al. "Geometrical analysis of localization error in stereo vision systems." *IEEE sensors journal* 13.11 (2013): 4236-4246.
- e) Altahir, Altahir Abdalla, et al. "Optimizing visual sensor coverage overlaps for multiview surveillance systems." *IEEE Sensors Journal* 18.11 (2018): 4544-4552.
- f) He, Shibo, et al. "Full-view area coverage in camera sensor networks: Dimension reduction and near-optimal solutions." *IEEE Transactions on Vehicular Technology* 65.9 (2016): 7448-7461.
- g) Attar, Ahmad Movahedian, Shantia Yarahmadian, and Shadrokh Samavi. "Coverage estimation in heterogenous floorplan visual sensor networks." *SENSORS*, *2013 IEEE*. IEEE, 2013.

8. Hardware implementation of image denoising

- a) Irmanova, Aidana, Olga Krestinskaya, and Alex Pappachen James. "Neuromorphic adaptive edge-preserving denoising filter." In *2017 IEEE International Conference on Rebooting Computing (ICRC)*, pp. 1-6. IEEE, 2017.
- b) HosseinKhani, Zohreh, Nader Karimi, S. Mohamad R. Soroushmehr, Mohsen Hajabdollahi, Shadrokh Samavi, Kevin Ward, and Kayvan Najarian. "Realtime removal of random value impulse noise in medical images." In 2016 23rd International Conference on Pattern Recognition (ICPR), pp. 3916-3921. IEEE, 2016.
- c) HosseinKhani, Z., Hajabdollahi, M., Karimi, N., Najarian, K., Emami, A., Shirani, S., Samavi, S. and Soroushmehr, S.M.R., 2019. Real-time removal of impulse noise from MR images for radiosurgery applications. *International Journal of Circuit Theory and Applications*, 47(3), pp.406-426.

9. Image segmentation

- a) Badrinarayanan, Vijay, Alex Kendall, and Roberto Cipolla. "Segnet: A deep convolutional encoder-decoder architecture for image segmentation." *IEEE transactions on pattern analysis and machine intelligence* 39, no. 12 (2017): 2481-2495.
- b) Sun, Weihong, Zhipeng Huang, Man Liang, Tiefeng Shao, and Haizhong Bi. "Cocoon Image Segmentation Method Based on Fully Convolutional Networks." In *Proceedings of the Seventh Asia International Symposium on Mechatronics*, pp. 832-843. Springer, Singapore, 2020.
- c) Ronneberger, Olaf, Philipp Fischer, and Thomas Brox. "U-net: Convolutional networks for biomedical image segmentation." In *International Conference on Medical image computing and computer-assisted intervention*, pp. 234-241. Springer, Cham, 2015.

10. Image search and retrieval

- a) Bracamonte, Javier, Michael Ansorge, Fausto Pellandini, and Pierre-André Farine. "Efficient compressed domain target image search and retrieval." In *International Conference on Image and Video Retrieval*, pp. 154-163. Springer, Berlin, Heidelberg, 2005.
- b) Gordo, Albert, Jon Almazán, Jerome Revaud, and Diane Larlus. "Deep image retrieval: Learning global representations for image search." In *European conference on computer vision*, pp. 241-257. Springer, Cham, 2016.
- c) Piplani, Tanya, and David Bamman. "Deepseek: content based image search & retrieval." *arXiv preprint arXiv:1801.03406* (2018).
- d) Shen, Fumin, Yang Yang, Li Liu, Wei Liu, Dacheng Tao, and Heng Tao Shen. "Asymmetric binary coding for image search." *IEEE Transactions on Multimedia* 19, no. 9 (2017): 2022-2032.

11. Image classification

- a) Wang, Fei, Mengqing Jiang, Chen Qian, Shuo Yang, Cheng Li, Honggang Zhang, Xiaogang Wang, and Xiaoou Tang. "Residual attention network for image classification." In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, pp. 3156-3164. 2017.
- b) Mou, Lichao, Pedram Ghamisi, and Xiao Xiang Zhu. "Deep recurrent neural networks for hyperspectral image classification." *IEEE Transactions on Geoscience and Remote Sensing* 55, no. 7 (2017): 3639-3655.
- c) Wang, Jiang, Yi Yang, Junhua Mao, Zhiheng Huang, Chang Huang, and Wei Xu. "Cnn-rnn: A unified framework for multi-label image classification." In *Proceedings of the IEEE conference on computer vision and pattern recognition*, pp. 2285-2294. 2016.
- d) Ma, Lei, Manchun Li, Xiaoxue Ma, Liang Cheng, Peijun Du, and Yongxue Liu. "A review of supervised object-based land-cover image classification." *ISPRS Journal of Photogrammetry and Remote Sensing* 130 (2017): 277-293.
- e) Maggiori, Emmanuel, Yuliya Tarabalka, Guillaume Charpiat, and Pierre Alliez. "Convolutional neural networks for large-scale remote-sensing image classification." *IEEE Transactions on Geoscience and Remote Sensing* 55, no. 2 (2016): 645-657.