1. Jiao J, Wang Y. Automatic boundary detection in breast ultrasound images based on improved pulse coupled neural network and active contour model. 5th International Conference on Bioinformatics and Biomedical Engineering, iCBBE 2011 [Internet]. 2011. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-79960133488&partnerID=40&md5=2fbc2be3a6c29e8afa2686a80a22de7d
2. Halliwell M. A tutorial on ultrasonic physics and imaging techniques. Proc Inst Mech Eng Part H J Eng Med [Internet]. 2010;224(2):127–42. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-76849088916&partnerID=40&md5=2e31c49ee5eacb38e9d8eff368395571
3. Chen D-R, Chang R-F, Wu W-J, Moon WK, Wu W-L. 3-D breast ultrasound segmentation using active contour model. Ultrasound Med Biol [Internet]. 2003;29(7):1017–26. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-0038104383&partnerID=40&md5=7ce9fd930964c1fa833d59c54cbee0f2
4. Rajaei A, Dallalzadeh E, Rangarajan L. Segmentation of Pre-processed Medical Images: An Approach Based on Range Filter. Int J Image, Graph Signal Process [Internet]. 2012 Sep 1 [cited 2015 Feb 12];4(9):8. Available from: http://www.mecs-press.org/ijigsp/ijigsp-v4-n9/v4n9-2.html
5. Liao YY, Wu JC, Li CH, Yeh CK. Texture feature analysis for breast ultrasound image enhancement. Ultrason Imaging. 2011;33:264–78.
6. Madabhushi A, Metaxas DN. Combining low-, high-level and empirical domain knowledge for automated segmentation of ultrasonic breast lesions. IEEE Trans Med Imaging [Internet]. 2003;22(2):155–69. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-0038398643&partnerID=40&md5=8f3c0cb69868bd81039a7d66c017a20e
7. Huang S-F, Chen Y-C, Woo KM. Neural network analysis applied to tumor segmentation on 3D breast ultrasound images. 2008 5th IEEE International Symposium on Biomedical Imaging: From Nano to Macro, Proceedings, ISBI [Internet]. 2008. p. 1303–6. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-51049090141&partnerID=40&md5=fb1a47c542dd589d7e2fb66be1f4d161
8. Bader W, Böhmer S, Van Leeuwen P, Hackmann J, Westhof G, Hatzmann W. Does texture analysis improve breast ultrasound precision? Ultrasound Obstet Gynecol [Internet]. 2000;15(4):311–6. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-0034543860&partnerID=40&md5=de959bbf56615fddc3548fa4861e418e
9. Liu B, Cheng HD, Huang J, Tian J, Tang X, Liu J. Fully automatic and segmentation-robust classification of breast tumors based on local texture analysis of ultrasound images. Pattern Recognit [Internet]. 2010;43(1):280–98. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-68949159836&partnerID=40&md5=849f4e2d8f796deb81ef01d7be063f00
10. F. Igual R. Mayo THUCAR, M.Ujaldon. Optimizing Co-Occurrence Matrices on Graphics Processors Using Sparse Representations. 9th Int􀳦 Workshop on State-of-the-Art in Science and Parallel Computing, Trondheim, Norway. 2008.
11. Yassine IS, Belfkih S, Najah S, Zenkouar H. A new method for texture image segmentation. 2010 5th International Symposium On I/V Communications and Mobile Network [Internet]. IEEE; 2010 [cited 2015 Feb 12]. p. 1–4. Available from: http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arnumber=5656161
12. Lv C, Wang G. Image Contrast Enhancement by Optimal Histogram Matching. J Comput Inf Syst. 2015;3:1163–70.
13. Kaur R. Histogram Equalization Tool : Brightness Preservation and Contrast Enhancement using Segmentation with. Int J Comput Appl. 2015;111(2):11–23.
14. P.-L. Yen R.-H. Fan DCY-JCH-CH. Design and construction of 3D breast tumor phantoms for studying morphological effects on biomechanical properties. Int J Comput Assist Radiol Surg. 2013;8(1):S284–5.
15. Selvarajah S, Kodituwakku SR. Analysis and Comparison of Texture Features for Content Based Image Retrieval. Int J Latest Trends Comput [Internet]. 2011;2(1):108–13. Available from: http://www.ijltc.excelingtech.co.uk/vol2issue1/18-vol2issue1.pdf
16. Aggarwal N, Agrawal RK. First and Second Order Statistics Features for Classification of Magnetic Resonance Brain Images. J Signal Inf Process. 2012;3(May):146–53.
17. Piliouras N, Kalatzis I, Dimitropoulos N, Cavouras D. Development of the cubic least squares mapping linear-kernel support vector machine classifier for improving the characterization of breast lesions on ultrasound. Comput Med Imaging Graph [Internet]. 2004;28(5):247–55. Available from: http://www.sciencedirect.com/science/article/pii/S0895611104000515
18. Haralick RM. Statistical and structural approaches to texture. Proc IEEE. 1979;67(5):786–804.
19. Tang X. Texture information in run-length matrices. Image Process IEEE Trans. 1998;7(11):1602–9.
20. Galloway MM. Texture analysis using gray level run lengths. Comput Graph Image Process [Internet].

1975;4(2):172–9. Available from: http://www.sciencedirect.com/science/article/pii/S0146664X75800086

1. Murmis VG, Gisvold JJ, Kinter TM, Greenleaf JF. Texture analysis of ultrasound B-scans to aid diagnosis of cancerous lesions in the breast. Ultrasonics Symposium, 1988 Proceedings, IEEE 1988. 1988. p. 839–42 vol.2.
2. Lefebvre F, Meunier M, Thibault F, Laugier P, Berger G. Computerized ultrasound B-scan characterization of breast nodules. Ultrasound Med Biol [Internet]. 2000;26(9):1421–8. Available from: http://www.sciencedirect.com/science/article/pii/S0301562900003021
3. Chang R-F, Wu W-J, Moon WK, Chen D-R. Automatic ultrasound segmentation and morphology based diagnosis of solid breast tumors. Breast Cancer Res Treat [Internet]. 2005;89(2):179–85. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-13844267711&partnerID=40&md5=e041bd7389900373ab3295633ebbfbba
4. Huang Q-H, Lee S-Y, Liu L-Z, Lu M-H, Jin L-W, Li A-H. A robust graph-based segmentation method for breast tumors in ultrasound images. Ultrasonics [Internet]. 2012;52(2):266–75. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-81855206603&partnerID=40&md5=64f63b465f4e88b93568bd6afd633289
5. Abd-Elmoniem KZ, Youssef A-BM, Kadah YM. Real-time speckle reduction and coherence enhancement in ultrasound imaging via nonlinear anisotropic diffusion. IEEE Trans Biomed Eng [Internet]. 2002;49(9):997–1014. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-0036721081&partnerID=40&md5=d5f5fbf546ad5e4399367f427a718bd0
6. Huang D-S, McGinnity M, Heutte L, Zhang X-P, editors. Advanced Intelligent Computing Theories and Applications [Internet]. Berlin, Heidelberg: Springer Berlin Heidelberg; 2010 [cited 2015 Mar 2]. Available from: http://www.springerlink.com/index/10.1007/978-3-642-14831-6
7. Rubner Y, Tomasi C, Guibas LJ. The Earth Mover’s Distance as a Metric for Image Retrieval. Int J Comput Vis [Internet]. Kluwer Academic Publishers; [cited 2015 Feb 24];40(2):99–121. Available from: http://link.springer.com/article/10.1023/A%3A1026543900054
8. Barla A, Odone F, Verri A. Histogram intersection kernel for image classification. Proceedings 2003 International Conference on Image Processing (Cat No03CH37429) [Internet]. IEEE; [cited 2015 Feb 24]. p. III – 513–6. Available from: http://ieeexplore.ieee.org/articleDetails.jsp?arnumber=1247294
9. Han Chumning, Guo Huadong, Wang Changlin. Edge preservation evaluation of digital speckle filters. IEEE International Geoscience and Remote Sensing Symposium [Internet]. IEEE; 2002 [cited 2015 Feb 26]. p. 2471–3. Available from: http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arnumber=1026581
10. Legg PA, Rosin PL, Marshall D, Morgan JE. Improving accuracy and efficiency of mutual information for multi-modal retinal image registration using adaptive probability density estimation. Comput Med Imaging Graph [Internet]. 2013 Jan [cited 2015 Apr 22];37(7-8):597–606. Available from: http://www.sciencedirect.com/science/article/pii/S0895611113001377
11. Byrd K, Zeng J, Chouikha M. An assessed digital mammography segmentation algorithm used for content-based image retrieval. 2006 8th international Conference on Signal Processing [Internet]. IEEE; 2006 [cited 2015 May 6]. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-34249323051&partnerID=tZOtx3y1
12. Parikh R, Mathai A, Parikh S, Sekhar GC, Thomas R. Understanding and using sensitivity, specificity and predictive values. Indian J Ophthalmol [Internet]. 2008;56(1):45–50. Available from: http://www.scopus.com/inward/record.url?eid=2-s2.0-38149096396&partnerID=tZOtx3y1
13. Chang H-H, Zhuang AH, Valentino DJ, Chu W-C. Performance measure characterization for evaluating neuroimage segmentation algorithms. Neuroimage [Internet]. 2009 Aug 1 [cited 2015 May 13];47(1):122–35. Available from: http://www.sciencedirect.com/science/article/pii/S1053811909003279
14. Akobeng AK. Understanding diagnostic tests 1: sensitivity, specificity and predictive values. Acta Paediatr [Internet]. 2007 Mar [cited 2015 Feb 26];96(3):338–41. Available from: http://www.ncbi.nlm.nih.gov/pubmed/17407452
15. Contreras Ortiz SH, Chiu T, Fox MD. Ultrasound image enhancement: A review. Biomed Signal Process Control [Internet]. 2012 Sep [cited 2015 Apr 15];7(5):419–28. Available from: http://www.sciencedirect.com/science/article/pii/S1746809412000183

36. Guo Y, Cheng HD, Huang J, Tian J, Zhao W, Sun L, et al. Breast ultrasound image enhancement using fuzzy logic. Ultrasound Med Biol [Internet]. 2006 Mar [cited 2015 May 29];32(2):237–47. Available from: http://www.sciencedirect.com/science/article/pii/S0301562905004175