

REFERENCES

1. Ahamed Samesh, Asmaa Ayman and Noran Hasan, "Parallel Ant Colony Optimization", International Journal of Research and Reviews in Computer Science, Vol. 1, No. 2, pp. 77-82, 2010.
2. Ahmed Kharrat, Karim Gasmi, Mohamed Ben Messaoud, Nacéra Benamrane and mohamedabid, "A Hybrid Approach for Automatic Classification of Brain MRI using Genetic Algorithm and Support Vector Machine", Leonardo Journal of Sciences, Vol. 17, pp. 71-82, 2010.
3. Ali, W. S. I. and Cohen, F. S. "Registering Coronal Histological 2-D Sections of a Rat Brain with Coronal Sections of a 3-D Brain Atlas using Geometric Curve Invariants and B-Spline Representation", IEEE Transactions on Medical Imaging, Vol.17, pp. 957-966, 1998.
4. Amini, L., Soltanian Zadeh, H. and Lucas, C. "Automated Segmentation of Brain Structure from MRI", IEEE Proceedings on Intl. Soc. Mag. Reson. Med. pp.11-15, 2001.
5. Amit, Y. "Graphical Shape Templates for Automatic Anatomy Detection with Applications to MRI Brain Scan", IEEE Transaction on Medical Imaging, Vol. 16, No. 1, pp. 28-40, 1997.
6. Aria Tzika, A., Maria, K. Z., Liliana Goumnerova, Loukas, G., Astrakas and David Zurakowski, "Neuro Imaging Pediatric Brain Tumors: Enhanced, Emodynamic, and Diffusion MR Imaging Compared with MR Spectroscopic Imaging", American JI. of Neuroradiol, Vol. 23, Issue. 2, pp. 322-333, 2002.
7. Arpita Das and Maura Bhattacharya, "A Study on Prognosis of Brain Tumors using Fuzzy Logic and Genetic Algorithm based Techniques", IEEE International Joint Conference on Bioinformatics, Systems Biology and Intelligent Computing, pp. 348-351, 2009.
8. Audette, M. A., Ferrie, F. P. and Peters, T. M. "An Algorithmic Overview of Surface Registration Techniques for Medical Imaging", Medical Image Analysis, Vol. 4, pp. 201-217, 2000.

9. Azadeh Yazdan Shahmorad, Hamid Soltanianzadeh and Reza Zoroofi, "MRSI– Brain Tumor Characterization using Wavelet and Wavelet packets Feature spaces and Artificial Neural Networks", IEEE Proceedings on Engg. in Medicine and Biology Society, pp. 1810-1813, 2004.
10. Azimi, Z. N. "Hybrid Heuristics for Examination Timetabling problem", Applied Mathematics and Computation, Vol. 163, pp. 705-733, 2005.
11. Bandyopadhyay, S., Mukhopadhyay, A. and Maulik, U. "An Improved Algorithm for Clustering Gene Expression Data", Bioinformatics, Vol. 23, No. 21, pp. 2859-2865, 2007.
12. Bin Yu, Zhong Zhen Yang, Chuntian and Chong Liu, "Optimizing Bus Transit Network with Parallel Ant Colony Algorithm", Proceedings on Eastern Asia Society for Transportation Studies, Vol. 5, pp. 374-389, 2005.
13. Brain Web (online)., www.bic.mni.mcgill.ca/brainweb/.
14. Brigger, P., Hoeg, J. and Unser, M. "B-Spline Snakes: A Flexible Tool for Parametric Contour Detection", IEEE Transaction Image Processing, Vol. 9, pp. 1484-1496, 2000.
15. Bullnheimer, B., Hartl, R. F. and Strauss, C. "A New Rank-based Version of the Ant System: A Computational Study", Central European Journal of Operations Research and Economics, Vol.7, No.1, pp.25-38, 1999.
16. Butz, T. and Thiran, J. P. "Affine Registration with Feature Space Mutual Information", Proceedings of the Fourth International Conference on Medical Image Computing and Computer Assisted Intervention, pp. 549-556, 2001.
17. Can, A., Stewart, C. V., Roysam, B. and Tanenbaum, H. L. "A Feature based Robust Hierarchical Algorithm for Registering Pairs of Images of the Curved Human Retina", IEEE Transaction on Pattern Analysis and Machine Intelligence Vol. 24, No. 3, 2002.
18. Chan, H. P., Lo, S. C., Sshiner, B., Lam, K. L. and Helvie, M. A. "Computer Aided Detection of Mammographic Microcalcifications: Pattern Recognition with an Artificial Neural Network", Medical Physics, Vol. 22, No.10, pp.1555-1567, 1995.

19. Chan, H. P., Lo, S. C., Sahiner, B. and Lam, K. L. "Computerized Analysis of Mammographic Micro calcifications in Morphological and Texture Features Space", *Med. Phys.*, Vol. 25, pp. 2007-2019, 1998.
20. Chan, H. P., Doi, K., Vyborny, C. J., Lam, K. L. and Schmidt, R. A. "Computer Aided Detection of Micro Calcifications in Mammograms: Methodology and Preliminary Clinical Study", *Investigative Radiology*, Vol. 9, pp. 664-671, 1999.
21. Chen, L., Sun, H. and Wang, S. "Parallel Implementation of Ant Colony Optimization on MPP", *Proceedings of the Seventh International Conference on Machine Learning and Cybernetics*, pp. 12-15, 2008.
22. Clark, M. C., Hall, L. O., Goldgof, D. B., Velthuisen, R., Murtagh, F. R. and Silbiger, M. S. "Automatic Tumor Segmentation using Knowledge based Techniques", *IEEE Transaction on Medical Imaging*, Vol. 17, pp. 187-201, 1998.
23. Cocosco, C. A., Kollokian, V., Kwan, R. K. S. and Evans, A. C. "Brainweb: Online Interface to a 3D MRI Simulated Brain Database", *Neuroimage*, Vol. 5, No. 4, pp. 425, 1997.
24. Cohen, L. D. and Cohen, I. "Finite Element Methods for Active Contour Models and Balloons for 2D and 3D Images", *IEEE Transaction on Pattern Analysis and Machine Intelligence*, Vol.15, pp. 131-1147, 1993.
25. Collins, D. L., Peters, T. M. and Evans, A. C. "An Automated 3D Non-Linear Deformation Procedure for Determination of Gross Morphometric Variability in Human Brain", *Visualization in Biomedical Computing*, Vol. 2359, pp.180-190, 1994.
26. Collins, D. L., Zijdenbos, A. P., Kollokin, V., Sled, J. G., Kabani, N. J., Holmes, C. J. and Evans, A. C. "Design and Construction of a Realistic Digital Brain Phantom", *IEEE Trans. on Medical Imaging*, Vol. 17, No. 3, pp. 463-468, 1998.
27. Corina Drapaca, S., Valerie Cardenas and Colin Stenholm, "Segmentation of Tissue Boundary Evolution from Brain MR Image Sequences using Multi-phase level Sets", *Elsevier Transaction on Computer Vision and Image Understanding*, Vol. 100, Issue. 3, pp. 312-329, 2005.

28. Davis, M. N., Khotanzad, A., Flamig, D. P. and Harms, S. E. "A Physics based Coordinate Transformation for 3D Image Matching" IEEE Transaction on Medical Imaging, Vol.16, No. 3, pp. 17-328, 1997.
29. Deneubourg, J. L., Pasteels, J. M. and Verhaeghe, J. C. "Probabilistic Behavior in Ants: A Strategy of Errors", Journal of Theoretical Biology, Vol. 105, pp. 259-271, 1983.
30. De Castro, E. and Morandi, C. "Registration of Translated and Rotated Image using Finite Fourier Transform" IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. 9, No. 5, pp. 700-703, 1987.
31. Dimitris, N. M., Zhen Qian, Xiaolei Huang, Rui Huang, Ting Chen and Leon Axal, "Hybrid Deformable Models for Medical Segmentation and Registration", IEEE Conference Proceedings on Control, Automation, Robotics and Vision, pp.1-6, 2006.
32. Dorigo, M., Maniezzo, V. and Colomi, A. "The Ant System: Optimization by a Colony of Cooperating Agents", IEEE Transactions on Systems Man and Cybernetics, Vol. 26, pp. 29-41, 1996.
33. Dorigo, M. and Gambardella, L. M. "Ant Colonies for the Traveling Salesman Problem", Journal of Bio Systems, Vol. 43, pp. 73-81, 1997.
34. Dubey, R. B., Hanmandlu, M. and Gupta, S. K. "Region Growing for MRI Brain Tumor Volume Analysis", Indian Journal of Science and Technology, Vol. 2, pp. 26-31, 2009.
35. Fernanda, O., Favretto Felipe, P. G., Bergo Alexandre, X. and Falc, A. "A Fast and Automatic Method for 3D Rigid Registration of MR Images of the Human Brain", IEEE Brazilian Symposium on Computer Graphics and Image Processing, pp.121-128, 2008.
36. Fletcher Heath, L. M., Hall, L. O., Goldgof, D. B. and Murtagh, F. R. "Automatic Segmentation of Non-Enhancing Brain Tumors in Magnetic Resonance Images", Journal of Artificial Intelligence, Vol. 21, pp. 43-63, 2001.

37. Glasbey, C. A. "An Analysis of Histogram based Thresholding Algorithms", *Computer Vision Graphics and Image Processing*, Vol. 55, pp. 532-537, 1993.
38. Ge, Y., Fitzpatrick, J. M., Kessler, R. M. and Jeske Janicka, M. "Inter-Subject Brain Image Registration using both Cortical and Subcortical Landmarks", *IEEE Proceedings on Image Processing*, Vol. 24, No.3, pp. 81-95, 1995.
39. Gering, D., Eric, W., Grimson, L. and Kikinis, R. "Recognizing Deviation from Normalcy for Brain Tumor Segmentation", *Medical image Computing and Computer-Assisted Intervention (MICCAI)*, pp. 388-395, 2002.
40. Glover, F. "Tabu Search-Part I", *ORSA J. Comput.*, Vol. 1, pp. 190-206, 1989.
41. Grau, V., Mewes, A. U. J., Alcaniz, M., Kikinis, R. and Warfield, S. K. "Improved Watershed Transform for Medical Image Segmentation Using Prior Information", *IEEE Trans. Med. Imag.*, Vol. 23. No. 4, pp. 447-458, 2004.
42. Gupta, R. and Undril, P. "The use of Texture Analysis to Delineate Suspicious Masses in Mammography", *Physics in Medicine and Biology*, Vol. 40, pp. 835-855, 1995.
43. Hall, L. O., Bensaid., Clarke., Velthuizen., Silbiger and Bezdek, J. C. "A Comparison of Neural Network and Fuzzy Clustering Techniques in Segmenting MRI of the Barin", *IEEE Transaction on Neural Network*, Vol. 3, No. 5, pp. 672-682, 1992.
44. Haney, S. M., Thompson, P. M., Cloughesy, F., Alger, J. R. and Toga, A. W. "Tracking Tumor Growth Rates in Patients with Malignant Gliomas A Test of Two Algorithms", *American Journal of Neuro Radiology*, Vol. 22, pp.73-82, 2001.
45. Hanley, J. A. "Receiver Operating Characteristics (ROC) Methodology the State of the Art", *Critical Reviews in Diagnostic Imaging*, Vol. 29, No. 3, pp. 307-335, 1989.

46. Handley, D. A. and Green, W. B. "Recent Developments in Digital Image Processing at the Image Processing Laboratory", IEEE Proceedings on Image Processing, Vol. 60, No. 7, pp. 821-828, 1972.
47. Haralick, R. M., Shanmugam, K. and Dinstein, I. "Textural Features for Image Classification", IEEE Trans. Syst., Man, Cybern., Vol. 3, pp. 610-621, 1973.
48. He, R. and Narayana, P. A. "Global Optimization of Mutual Information: Application to 3-Dimensional Retrospective Registration of Magnetic Resonance Images", Comput. Med. Imaging, Vol. 26, pp. 277-292, 2002.
49. Hideki Yamamoto, Katsuhiko Sugita, Noriki Kanzaki, Ikuo Johja, Yoshio Hiraki and Michiyoshi Kuwahara, "Magnetic Resonance Image Enhancement Using V- Filter", IEEE -AES Magazine, Vol. 5, Issue. 6, pp. 31-35, 1990.
50. Hojjatoleslami, S. A. and Kittler, J. "Region Growing: A New Approach", IEEE Trans. on Image Processing, Vol. 7, No. 7, pp.114-120, 1998.
51. Karen Chiaren Lin, Miinshen Yang, Hsiuchih Liu, Jiingfeng Lirng and Peining Wang, "Generalized Kohonen's Competitive Learning Algorithms for Ophthalmologic MR image Segmentation", Elsevier, Magnetic Resonance Imaging, Vol. 21, Issue. 8, pp. 863-870, 2009.
52. Kass, M., Witkin A. and Terzopoulos, D. "Snakes: Active Contour Models", International Journal of Computer Vision, Vol. 1, pp. 321-331, 1988.
53. Kennedy, J. and Eberhart, R. "Particle Swarm Optimization", IEEE Proceedings on Neural Network, pp. 1942-1948, 1995.
54. Kirkpatrick, S., Gelatt, C. and Vecchi, M. "Optimization by Simulated Annealing", Science, Vol. 220, pp. 671-680, 1983.
55. Kupinski, M. A. and Giger, M. L. "Automated Seeded Lesion Segmentation on Digital Mammograms", IEEE Transaction on Medical Imaging, Vol. 17, No. 4, pp. 510-517, 1998.

56. Leaster, R. G. "The Contributions of Radiology to the Diagnosis, Management and Cure of Cancer", *Radiology*, Vol. 151, pp. 1-4, 1984.
57. Lee, J. "Digital Image Enhancement and Noise Filtering by use of Local Statistics", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 9, pp. 165-168, 1980.
58. Leung, C. C., Chen, W. F., Kwok, P. C. K. and Chan, F. H. Y. "Brain Tumor Boundary Detection in MR Image with Generalized Fuzzy Operator", *IEEE Conference on Image Processing*, Vol. 2, pp. 1057-1060, 2003.
59. Li, C. L., Goldgof, D. B. and Hall, L. O. "Knowledge based Classification and Tissue Labeling of MR Images of Human Brain", *IEEE Transaction on Medical Imaging*, Vol. 12, No. 4, pp. 740-750, 1993.
60. Li, H., Manjunath, B. S. and Mitra, S. K. "A Contour based Approach to Multisensor Image Registration", *IEEE Transaction on Image Processing*, Vol. 4, No. 3, pp. 320-334, 1995.
61. Lin Wu and Dayong Guo, "Modified Fuzzy C- means Clustering Algorithm for Image Segmentation in Brain Magnetic Resonance Images", *Tsinghua Science and Technology*, Vol. 44, No. 2, pp. 157-159, 2004.
62. Liu, J., Udupa, J. K., Odhner, D., Hackney, D. and Moonis, G. "A System for Brain Tumor Volume Estimation via MR Imaging and Fuzzy Connectedness", *Comput. Med. Imag. and Graphics*, pp. 21-34, 2005.
63. Lorenzen Peter, Joshi Sarang, Gerig Guido, and Bullitt Elizabeth, "Tumor-Induced Structural and Radiometric Asymmetry in Brain Images", *IEEE workshop on MMBIA*, pp.163-165, 2001.
64. Lu, Y., Jiang, T. and Zang, Y. "Region Growing Method for Analysis of Functional MRI Data", *Neuro Imaging*, Vol. 20, pp. 455-465, 2003.
65. Manjunath, B. S., Chellappa, R. and Malsburg, C. "A Feature based Approach to Face Recognition", *IEEE Proceedings on Computer Vision and Pattern Recognition*, pp. 373-378, 1992.

66. Prastawa M., Bulitt E., Moon N., Leemput L.V and Gerig G., “Automatic Brain Tumor Segmentation by Subject Specific Modification of Atlas Priors”, *Academic Radiology*, Vol. 10, Issue. 12, pp.1341-1348, 2003.
67. Matsopoulos, G. K., Mouravliansky, N. A., Delibasis, K. K. and Nikita, K. S. “Automatic Retinal Image Registration Scheme using Global Optimization Techniques”, *IEEE Transaction on Information Technology and Bio medicine*, Vol. 3, pp. 47-60, 1999.
68. Meritxell Bach Cuadra, Olivier Cuisenaire, Reto Meuli and Jean Philippe Thiran, “Automatic Segmentation of Internal Structures of the Brain in MRI using a Tandem of Affine and Non Rigid Registration of an Anatomical Brain Atlas”, *IEEE Transaction on Medical Imaging*, Vol. 10, No. 9, pp. 1083-1086, 2001.
69. Michel, R. and Middendorf, M. “An Island based Ant System with look Ahead for the Shortest Common Subsequence Problem”, *Springer-Verlag Proceedings on Parallel Problem Solving from Nature*, Vol. 14, pp. 692-708, 1998.
70. Mohsen Ghazel, Anthony Traboulsee, Rabab, K. Ward, “Semi-Automated Segmentation of Multiple Sclerosis Lesions in Brain MRI using Texture Analysis”, *IEEE Proceedings on Signal Processing and Information Technology*, pp. 6-10, 2006.
71. Murugavalli, S., and Rajamani, V. “An Improved Implementation of Brain Tumor Detection using Segmentation based on Neuro Fuzzy Technique”, *Journal of Computer Science*, Vol. 3, No. 11, pp. 841-846, 2007.
72. Myungeun Lee, Soo Hyung Kim and Wan Hyun Cho, “Segmentation of brain MR Images using an Ant Colony Optimization Algorithm”, *IEEE International Conference on Bioinformatics and Bioengineering*, pp. 366-369, 2009.
73. Niesen, W. J., Vincken, K. L., Weickert, J., Ter Haar Romeny, B. M. and Viergever, M. A. “Multiscale Segmentation of 3D MR Brain”, *Springer*, Vol. 31, pp. 2-3, 1999.

74. Orlando, J. and Rui Seara, "Image Segmentation by Histogram Thresholding using Fuzzy Sets", IEEE Transaction on Medical Imaging, Vol. 11, pp.1457-1464, 2002.
75. Otsu, N. "A Threshold Selection Method from Gray Level Histogram", IEEE Transaction on Systems, Man, Cybernatics, Vol. 9, No. 1, pp. 62-66, 1979.
76. Park, J. G. and Lee, C. "Skull Stripping Based on Region Growing for Magnetic Resonance Brain Images", NeuroImage, Vol. 47, pp.1394-1407, 2009.
77. Paulo Roberto Dellani, Martin Glaser, Aldo Von Wangenheim, "Tracking Cerebral White Pathways from Diffusion Tensor Imaging Data: Application in Patients with Brain Tumors", IEEE Symposium Proceedings on Computer-Based Medical Systems (CBMS'04), pp.155-162, 2004.
78. Peng Wen, "Medical Image Registration Based-on Points, Contour and Curves" IEEE Proceedings on Biomedical Engineering and Informatics, pp. 132-136, 2008.
79. Pham, D. L and Prince, J. L. "Adaptive Fuzzy Segmentation of MRI", IEEE Transaction on Medical Imaging, Vol. 18, No. 9, pp. 737-752, 1999.
80. Rajeev Ratan, Sanjay Sharma and Sharma, S. K. "Brain Tumor Detection based on Multi parameter MRI Image Analysis", ICGCST-GVIP Journal, Vol. 9, No. 3, pp. 9-17, 2009.
81. Razaz, M. "A Fuzzy C-means Clustering Placement Algorithm", IEEE Transaction on Circuits and Systems, Vol. 3, pp.2051-2054, 1993.
82. Robert, P. Velthuzine, Lawrance, O. H., Lawrence, P. C. "Noval approach to feature extraction for MRI Segmentation", IEEE Transaction on Medical Imaging, Vol. 27, No.10, pp. 222-231, 1996.
83. Rosniza Roslan, Nursuriati Jamil and Rozi Mahmud "Skull Stripping of MRI Images Using Mathematical Morphology", IEEE EMBS Conference on Biomedical Engg and Sciences ,pp.26-31,2010.

84. Salman, Y. M., Assal, M. A., Badawi, A. M. and Bavome, M. "Validation Techniques for Quantitative Brain Tumors Measurements", IEEE Proceedings on Engg. in Medicine and Biology, pp.11-15, 2005.
85. Satish Chandra, Rajesh Bhat and Harinder Singh, "A PSO based Method for Detection of Brain Tumors from MRI", IEEE Proceedings of Nature and Biologically Inspired Computing, pp. 666-671, 2009.
86. Schmidt M., Levner I., Greiner. R., Murtha.A and Bistriz. A., "Segmentation Brain Tumors using Alignment-Based Features", IEEE International Conference on Machine Learning and Applications, pp. 215-220, 2005.
87. Senaratne, G. G., Richard, B. K., Winston, L. S. and Greame, C. W. "Solution to the 2D-Boundary Value Problem for Microwave Breast Tumor Detection", IEEE Microwave and Wireless Components and Letters ,Vol. 16, No.10, pp. 343-348, 2006.
88. Set M., Leith J., "Dormancy, Regression and Recurrence: Towards a Unifying Theory of Tumor Growth and Control", Journal of Theoretical Biology, Vol. 169, pp. 327-328, 1994.
89. Shan Shen and William Sandham, "MRI Fuzzy Segmentation of Brain Tissue using Neighborhood Attraction with Neural Network Optimization", IEEE Transaction on Information Technology in Biomedicine, Vol. 9, No. 3, pp. 459-467, 2005.
90. Shengdong Nie, Ying Chen and Yingli Zhang, "The Study of Fast Clustering Segmentation Algorithm of Head MRI", Chinese Journal of Biomedical Engineering., Vol. 20, No. 2, pp.104-109, 2001.
91. Shishir Dube, Suzie El Saden, Timothy F. C. "Usha Sinha,"Content Based Image Retrieval for MR image Studies of Brain Tumors", IEEE proceedings on EMBS , pp.24-28, 2006.
92. Sklansky,J. "Image Segmentation and Feature Extraction", IEEE Transaction on Systems, Man and Cybernetics, Vol.8,No.4,pp.237-247, 1978.

93. Sled, J., Zijdenbos, A. and Evans, A. "A Nonparametric Method of Automatic Correction of Intensity of Non uniformity in MRI data", IEEE Transaction on Medical Imaging, Vol. 17, pp. 87-97, 1998.
94. Stewart, C. V., Tsai, C. L. and Roysam, B. "The Dual-Bootstrap Iterative Closest Point Algorithm with Application to Retinal Image Registration", IEEE Trans. on Medical Imaging, Vol. 22, No.11, pp.1379-1394, 2003.
95. Storn, R. and Price, K. "Differential Evolution: A Simple and Efficient Heuristic Strategy for Global Optimization over Continuous Space", Journal on Global Optimization, Vol. 11, pp. 341-359, 1997.
96. Stutzle, T. H. and Hoos, "MAX-MIN Ant System and Local Search for Combinatorial Optimization Problems", Proceedings on Metaheuristics Advances and Trends in Local Search Paradigms for Optimization, pp. 313-329, 1999.
97. Subsol, G., Thirion, J. P. and Ayache, N. "A General Scheme for Automatically Building 3-D Morphometric Anatomical Atlases: Application to a Skull Atlas", Medical Image Analysis, Vol. 2, No. 1, pp. 37-60, 1998.
98. Suzuki, H. and Toriwaki, "Automatic Segmentation of Head MRI Images by Knowledge Guided Thresholding", Comput. Med. Imag. Graph, Vol. 15, No. 4, pp. 233-240, 1991.
99. Thangavel, T., Karnan, M., Pethalakshmi, Sivakumar, R. and Geetharamani, G. "Ant Colony Algorithm in Diverse Combinational Optimization Problems A Survey", ICGST-ACSE Journal, Vol. 6, No.1, pp. 7-25, 2006.
100. Thompson, P. M. and Toga, A. W. "A Surface based Technique for warping 3 Dimensional Images of the Brain", IEEE Transaction on Medical Image Processing, Vol. 15, No. 4 , pp. 402-417, 1996.
101. Vannier, M. W., Speidel, C. M. and Rickman, D. L. "Magnetic Resonance Imaging Multispectral Tissue Classification", News Physiol. Sci. Vol. 3 pp.148-154, 1998.

102. Vijay Kumar, C., Gharpure Damayanti, Panta, R. and Sreedhar, C. M. "Segmentation and Grading of Brain Tumors on Apparent Diffusion Coefficient Images using Self-Organizing Maps", *Computerized Medical Imaging and Graphics*, Vol. 31, pp. 473-484, 2007.
103. Wells, W. M., Grimson, W. E. L., Kikinis, R. and Jolesz, F. A. "Adaptive segmentation of MRI Data", *IEEE Trans. Med. Imag.*, Vol. 15, No. 4, pp. 429-442, 1996.
104. Xabier Artaechevarria, Arrate Muñoz Barrutia and Carlos Ortiz-De-Solórzano, "Combination Strategies in Multi-Atlas Image Segmentation: Application to Brain MR Data", *IEEE Transactions On Medical Imaging*, Vol. 28, No. 8, pp.1266-1277, 2009.
105. Xiangbo Lin, Tianshuang Qiu, Su Ruan, Frederic Morain Nicolier, "Segmentation of Brain Internal Structures Automatically Using Non Rigid Registration with Simultaneous Intensity and Geometric Match", *IEEE International Conference on Intelligent Systems Design and Application*, pp. 525-530, 2008.
106. Xie, K., Yang, J., Zau, Z. G. and Zhu, Y .M. "Semiautomatic Brain Tumor an Edema Segmentation using MRI", *European Journal of Radiology*, Vol. 56, No.1, pp.12-19, 2005.
107. Ying li Zhang, Shengdong Nie, Zhaoxue Chen and Wen li 2007, "A Novel Segmentation Method of MR Brain Images based on Genetic Algorithm", *IEEE eedings on procBioinformatics and Biomedical Engineering*, pp.729-732.
108. Yong Fan, Tianzi Jiang and David, J. Evans, "Volumetric Segmentation of Brain images using Parallel Genetics Algorithm", *IEEE Trans. on Medical Imaging*, Vol. 21, No. 8, pp. 904-909, 2001.
109. Yongyue Zhang, Michale Brady and Stephen Smith, "Segmentation of Brain MR Images through a Hidden Markov Random Field Model and the EM Algorithm", *IEEE Transaction on Medical Image Processing*, Vol. 20, No.1, pp. 45-57, 2001.
110. Yurui Xie, Mingyuan Xie and Ling Yang, "A New Non-rigid Image Registration Algorithm Using the Finite-Element Method", *IEEE International Workshop on Education Technology and Computer Science*, pp. 206-210, 2010.

111. Zhe Chen, David Dagan Feng, Weidong Ca, “Automatic Detection of PET Lesions”, Pang-Sydney Area Workshop on Visual Information Processing, Conference in Research and Practice in IT, Vol.22, pp. 189-191, 2003.
112. Zheng, Q. and Chellappa, R. “A Computational Vision Approaches to Image Registration”, IEEE Transaction on Image Processing, Vol. 2, No. 4, pp. 311-326, 1993.
113. Zhou, J., Chan, K. L., Chong, V. F. H., Krishnan, S. M., “Extraction of Brain Tumor from MR Images Using One-Class Support Vector Machine”, IEEE Proceedings on Engineering in Machine and Biology, pp. 1- 4, 2005.
114. Zijdenbos, A. P., Dawant, B. M., Margolin and Palmer, A. C. “Morphometric Analysis of White Matter Lesions in MR Images: Method and Validation”, IEEE Transaction on Medical Imaging, Vol.3, No. 4, pp. 716-724, 1994.