



[Intelligent System Engineering](#) > MITANI Yoshihiro

MITANI Yoshihiro



Organization	Intelligent System Engineering
Position	Professor
Academic Title	Doctor(Engineering)
Research Fields	Pattern Recognition, Image Processing

<< Research Subjects >>

1. [Pattern Recognition](#)
2. [Image Processing](#)

<< Academic Activities >>

Papers and Notes

1. [K. Fujino, Y. Mitani, Y. Fujita, Y. Hamamoto, and I. Sakaida: "Liver cirrhosis classification on M-mode ultrasound images by higher-order local auto-correlation features", Journal of Medical and Bioengineering, Vol.3, No.1, pp.29-32, Mar. \(2014\)](#)
2. [Y. Mitani, T. Kanemura, Y. Fujita, and Y. Hamamoto: "Fingerspelling recognition by hand shape using higher-order local auto-correlation features", Computer Technology and Application, Vol.3, No.12, pp.784-788 \(2012\)](#)
3. [Y. Mitani and Y. Hamamoto: "A study of pansharpened images based on the HSI transformation approach", Journal of Software Engineering and Applications, Vol.5, pp.163-166 \(2012\)](#)
4. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "The use of a local histogram feature vector for classifying diffuse lung opacities in high-resolution computed tomography", International Journal of Advancements in Computing Technology, Vol.4, No.2, pp.22-28 \(2012\)](#)
5. [Y. Mitani and Y. Hamamoto : "A local mean-based nonparametric classifier", Pattern Recognition Letters, Vol.27, Issue 10, pp.1151-1159 \(2006\)](#)
6. [Y. Hamamoto, S. Uchimura, M. Watanabe, T. Yasuda, Y. Mitani, and S. Tomita : "A Gabor filter-based method for recognizing handwritten numerals", Pattern Recognition, Vol.31, No.4, pp.395-400 \(1998\)](#)
7. [Y. Hamamoto, Y. Mitani, T. Hase, and S. Tomita : "Fast learning by anti-regularization technique", Memoirs of the Faculty of Engineering, Yamaguchi University, Vol.48, No.1, pp.113-118 \(1997\)](#)

Books

1. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "The use of a local histogram feature vector of classifying diffuse lung opacities in high-resolution computed tomography", Advanced Research in Applied Artificial Intelligence, He Jiang, Wei Ding, Moonis Ali, and Xindong Wu \(Eds.\), Springer-Verlag, LNAI 7345, pp.343-350 \(2012\)](#)
2. [Y. Mitani, Y. Sugimura, and Y. Hamamoto : "A method for reading a resistor by image processing techniques", Knowledge-Based Intelligent Information and Engineering Systems, I. Lovrek, R. J. Howlett, and L. C. Jain \(Eds.\), Springer-Verlag, LNAI 5177, Part I, pp.433-439 \(2008\)](#)
3. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto : " A study on nonparametric classifiers for a CAD system of diffuse lung opacities in thin-section computed tomography images", Knowledge-Based Intelligent Information & Engineering Systems, M. Gh. Negoita et al.\(Eds.\), Springer-Verlag, LNAI 3213, Part I, pp.608-613 \(2004\)](#)
4. [Y. Mitani, H. Yasuda, S. Kido, K. Ueda, N. Matsunaga, and Y. Hamamoto : " Combined features for classifying diffuse lung opacities in thin-section computed tomography images", Knowledge-Based Intelligent Information Engineering Systems & Allied Technologies, Frontiers in Artificial Intelligence and Applications, E. Damiani et al.\(Eds.\), IOS Press, Vol. 82, PartI, pp.121-125 \(2002\)](#)
5. [Y. Mitani, H. Hirayama, S. Kido, Y. Hamamoto, K. Ueda, and N. Matsunaga : "A Gabor filter based CAD system for coloring diffuse lung opacities in thin-section computed tomography", Knowledge-Based Intelligent Information Engineering Systems & Allied Technologies, Frontiers in Artificial Intelligence and Applications, N. Baba et al.\(Eds.\), IOS Press, Vol. 69, PartII,](#)

Presentations

1. [Y. Murata and Y. Mitani: "A fast and shortest path finding method for maze images by image processing techniques and graph theory". Collection of 2013 6th International Conference on Computer Science and Information Technology, Paris, France, Dec. \(2013\)](#)
2. [K. Fujino, Y. Mitani, H. Hayashi, Y. Fujita, Y. Hamamoto, M. Segawa, S. Terai, and I. Sakaida: "A note of liver cirrhosis classification on M-mode ultrasound images by higher-order local auto-correlation features", Proc. International Conference of Soft Computing and Pattern Recognition, pp.50-53, Hanoi, Vietnam, Dec. \(2013\)](#)
3. [Y. Mitani and Y. Hamamoto: "An evaluation of color features for a resistor color classification under various illumination situations", Proc. SPIE Fifth International Conference on Graphic and Image Processing, Volume 9069, pp.906914-1-906914-5, Hong Kong, China, Oct. \(2013\)](#)
4. [K. Fujino, Y. Mitani, H. Hayashi, Y. Fujita, Y. Hamamoto, M. Segawa, S. Terai, and I. Sakaida: "A study of liver cirrhosis classification on M-mode ultrasound images by higher-order local auto-correlation features", Proc. Society of Instrument and Control Engineers Annual Conference 2013, pp.1403-1404, Nagoya, Sep. \(2013\)](#)
5. [Y. Murata and Y. Mitani: "A note of shortest path algorithms for maze images", Proc. Society of Instrument and Control Engineers Annual Conference 2013, pp.1405-1406, Nagoya, Sep. \(2013\)](#)
6. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "A study of local slice features for a lung opacities classification in thin-section computed tomography images", Proc. the IASTED International Conference on Signal and Image Processing, pp.460-463, Banff, Canada, Jul. \(2013\)](#)
7. [Y. Mitani, T. Kanemura, Y. Fujita, and Y. Hamamoto: "A study of fingerspelling recognition by hand shape using a histogram of oriented gradient feature vector", Proc. 11th International Conference on Quality Control by Artificial Vision, pp.22-25, Fukuoka, May \(2013\)](#)
8. [Y. Fujita, T. Goto, Y. Hamamoto, Y. Mitani, M. Segawa, S. Terai, and I. Sakaida: "A liver cirrhosis detection method using probabilistic ROI combination", Proc. 11th International Conference on Quality Control by Artificial Vision, pp.81-85, Fukuoka, May \(2013\)](#)
9. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "The use of a slice feature vector of classifying diffuse lung opacities in high-resolution computed tomography images", Proc. 4th International Conference on Computational Intelligence, Modeling and Simulation, pp.60-63, Kuantan, Malaysia, Sep. \(2012\)](#)
10. [T. Kanemura, Y. Mitani, Y. Fujita, and Y. Hamamoto: "A note of fingerspelling recognition by hand shape using higher-order local auto-correlation features", Proc. Society of Instrument and Control Engineers Annual Conference 2012, pp.777-778, Akita, Aug. \(2012\)](#)
11. [T. Hayashi, Y. Fujita, Y. Mitani, Y. Hamamoto, M. Segawa, S. Terai, and I. Sakaida: "An abdominal aorta wall extraction for liver cirrhosis classification using ultrasonic images", Proc. 2011 International Symposium on Computational Models for Life Sciences, pp.343-344, Toyama, Oct. \(2011\)](#)
12. [T. Kanemura, Y. Mitani, Y. Fujita, and Y. Hamamoto: "A study of fingerspelling recognition by hand shape using higher-order local auto-correlation features", Proc. Society of Instrument and Control Engineers Annual Conference 2011, pp.1138-1139, Tokyo, Sep. \(2011\)](#)
13. [M. Fukuda, K. Miyamoto, and Y. Mitani: "A study of facial feature detection by image processing techniques using color information", Proc. Society of Instrument and Control Engineers Annual Conference 2011, pp.429-430, Tokyo, Sep. \(2011\)](#)
14. [Y. Murata and Y. Mitani: "A study of shortest path algorithms in maze images", Proc. Society of Instrument and Control Engineers Annual Conference 2011, pp.32-33, Tokyo, Sep. \(2011\)](#)
15. [Y. Mitani and Y. Hamamoto: "A consideration of pan-sharpen images by HSI transformation approach", Proc. Society of Instrument and Control Engineers Annual Conference 2010, pp.1283-1284, Taipei, Aug. \(2010\)](#)
16. [Y. Mitani and Y. Hamamoto: "A study of color features for reading a resistor", Proc. Society of Instrument and Control Engineers Annual Conference 2010, pp.2850-2851, Taipei, Aug. \(2010\)](#)
17. [Y. Fujita, Y. Mitani, and Y. Hamamoto: "A method for crack detection on a concrete structure", Proc. 18th Int. Conf. Pattern Recognition, ISBN: 0-7695-2521-0/06 \(c\) 2006 IEEE, Hong Kong, Aug. \(2006\)](#)
18. [Y. Mitani, T. Teramoto, T. Oki, and M. Fukagawa: "A microbubble detection method based on the Hough transform", Proc. 8th IASTED Int. Conf. Signal and Image Processing, pp.109-112, Hawaii, Aug. \(2006\)](#)
19. [T. Oki, Y. Mitani, M. Fukagawa, and S. Abe: "A measurement of a micro-bubble diameter by using the Hough transform", Proc. the Society of Instrument and Control Engineers Annual Conference 2005, pp.149-152, Okayama, Aug. \(2005\)](#)
20. [Y. Mitani, N. Matsunaga, and Y. Hamamoto: "Artificial images for classifying diffuse lung opacities in thin-section computed tomography", Proc. 17th Int. Conf. Pattern Recognition, Vol. III, pp.530-533, ISBN: 0-7695-2128-2/04 \(C\) 2004 IEEE, Cambridge, UK, Aug. \(2004\)](#)
21. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "Feature selection methods for the combined feature vector of classifying diffuse lung opacities in thin section computed tomography", IEEE EMBS Asian-Pacific Conference on Biomedical Engineering 2003, ISBN: 0-7803-7944-6 /03/ \(c\)2003 IEEE, Keihanna, Oct. \(2003\)](#)
22. [Y. Mitani, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "Evaluation of feature selection methods for classifying diffuse lung opacities in thin-section computed tomography images", Radiological Society of North America, 89th Scientific Assembly and Annual Meeting, pp.50, Chicago, Dec. \(2003\)](#)
23. [Y. Mitani, Y. Tagawa, Y. Fujita, N. Matsunaga, and Y. Hamamoto: "A consideration of artificial images for classifying diffuse lung opacities in thin-section computed tomography images", Radiological Society of North America, 89th Scientific Assembly and Annual Meeting, pp.646, Chicago, Dec. \(2003\)](#)
24. [Y. Mitani, H. Yasuda, S. Kido, N. Tanaka, N. Matsunaga, and Y. Hamamoto: "Feature selection of the combined feature vector for classifying diffuse lung opacities in thin-section computed tomography images", Radiological Society of North America, 88th Scientific Assembly and Annual Meeting, pp.407, Chicago, Dec. \(2002\)](#)
25. [Y. Mitani, H. Yasuda, S. Kido, K. Ueda, N. Matsunaga, and Y. Hamamoto: "Combining the Gabor and histogram features for classifying diffuse lung opacities in thin-section computed tomography", Proc. 16th Int. Conf. Pattern Recognition, Vol. I, pp.53-56, Quebec, Aug. \(2002\)](#)
26. [Y. Mitani, H. Yasuda, S. Kido, Y. Hamamoto, N. Tanaka, and N. Matsunaga: "Combination of the Gabor and histogram features for classifying diffuse lung opacities in thin-section computed tomography images", Radiological Society of North America, 87th Scientific Assembly and Annual Meeting, pp.547-548, Chicago, Nov. \(2001\)](#)
27. [Y. Mitani and Y. Hamamoto: "Classifier design based on the use of nearest neighbor samples", Proc. 15th Int. Conf. Pattern Recognition, Vol. 2, pp.773-776, Barcelona, Sep. \(2000\)](#)

28. [Y. Mitani, S. Kido, Y. Hamamoto, N. Tanaka, and N. Matsunaga: "A Gabor filter-based approach for classifying diffuse lung opacities in thin-section computed tomography images", Radiological Society of North America, 86th Scientific Assembly and Annual Meeting, pp.207-208, Chicago, Nov. \(2000\)](#)
29. [T. Miyamoto, Y. Mitani, and Y. Hamamoto: "Use of bootstrap samples in quadratic classifier design", Proc. 15th Int. Conf. Pattern Recognition, Vol. 2, pp.793-796, Barcelona, Sep. \(2000\)](#)
30. [Y. Mitani, H. Hirayama, H. Yasuda, S. Kido, Y. Hamamoto, K. Ueda, and N. Matsunaga: "A Gabor filter based classification for diffuse lung opacities in thin-section computed tomography images", Proc. 4th Int. Conf. Knowledge-Based Intelligent Engineering Systems & Allied Technologies, Vol. 2, pp. 780-783, Brighton, UK, Aug. \(2000\)](#)
31. [Y. Mitani and Y. Hamamoto: "Classifier design using nearest neighbor samples", Proc. 5th Int. Conf. Signal Processing \(in 16th IFIP World Computer Congress 2000\), Vol. 3, pp.1448-1452, Beijing, Aug. \(2000\)](#)
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33. [Y. Mitani, Y. Hamamoto, and S. Tomita: "Evaluation of the noise injection in high dimensions", Proc. IAPR Workshop on Machine Vision Applications, pp.107-110, Tokyo, Nov. \(1996\)](#)
34. [Y. Hamamoto, Y. Mitani, H. Ishihara, T. Hase, and S. Tomita: "Evaluation of an anti-regularization technique in neural networks", Proc. 13th Int. Conf. Pattern Recognition, Vol. IV, pp.205-208, Vienna, Aug. \(1996\)](#)
35. [Y. Hamamoto, T. Hase, Y. Mitani, and S. Tomita: "A note on the generalization error in neural networks", Proc. 9th Int. Conf. Industrial and Engineering Applications of Artificial Intelligence and Expert Systems, pp.559-562, Fukuoka, Jun. \(1996\)](#)
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37. [Y. Mitani, Y. Hamamoto, and S. Tomita: "Back-propagation learning with bootstrap samples", Proc. 2nd Asian Conf. Computer Vision, Vol. 2, pp.90-93, Dec. Singapore, \(1995\)](#)
38. [Y. Mitani, Y. Hamamoto, and S. Tomita: "Use of bootstrap samples in designing artificial neural network classifier", Proc. 1995 IEEE Int. Conf. Neural Networks, Vol. 4, pp.2103-2106, Perth, Nov. \(1995\)](#)
39. [Y. Hamamoto, Y. Mitani, and S. Tomita: "On the effect of the noise injection in small training sample size situations", Proc. Int. Conf. Neural Information Processing, Vol. 1, pp.626-628, Seoul, Oct. \(1994\)](#)