



[Electrical Engineering](#) > HASHIMOTO Hajime



**HASHIMOTO Hajime**

Organization	Electrical Engineering
Position	Professor
Academic Title	Doctor(Engineering)
Research Fields	Image Processing, Measurement by Image Processing, Electrical/Electronic Circuit

## << Research Subjects >>

1. [Displacement Vector Analysis by Image Processing](#)
2. [Optical Flow Detection by Image Processing](#)
3. [Color Recognition by Image Processing](#)

## << Academic Activities >>

### Papers and Notes

1. [K.Suzuki,R.J. Akther, H.Mahara,H.Hashimoto,T.Iwatsubo,S. Nishimura,T.Yamaguchi:" Self-Eoranzation of Multilayered Oil Droplet in Water", Chemical Letters,Vo.138, No.1,pp.20-21\(2009\).](#)
2. [P.Kettunen,P.D.Bourke.H.Hashimoto.T.Amemiya.S.C.Muller.T.Yamaguchi:"Computational Study of Helix Wave Formation in Active Media", Mathematical and Computer Modelling, Vol.41, pp.1013-1020 \(2005\)](#)
3. [K.Nakajima,H.Hashimoto:"An Inexpensive Color Image Sequence Acquisition System Using a Personal Computer", Forma, Vol.13, No.4, pp.257-266 \(1999\)](#)
4. [T.Yamaguchi,T.Kusumi,R.R.Aliev,T.Amemiya,T.Ohmori,M.Nakaiwa,K.Urabe,S.Kinugasa,H.Hashimoto,K.Yoshikawa:" Unidirectionality of Chemical Diode", ACH-Models in Chemistry, Vol.135, No.3, pp.401-408 \(1998\)](#)
5. [T.Kusumi,T.Yamaguchi,R.R.Aliev,T.Amemiya,T.Ohmori,H.Hashimoto,K.Yushikawa:"Numerical Study on Time Delay for Chemical Wave Transmission Via an Inactive Gap", Chemical Physics Letters, Vol.271, pp.355-360 \(1997\)](#)
6. [M.Momota,H.Miike,H.Hashimoto:"Measuring Particle Size Distribution by Digital Image Processing with Inverse Fourier-Bessel Transformation", Japanese Journal of Applied Physics, Vol.33, Part1, No.2, pp.1189-1194 \(1994\)](#)
7. [A.Nomura,H.Miike,H.Hashimoto ; "Measuring an Accelerating Propagation of a Big Wave by Sequential Image Processing", Spatio-Temporal Organiza-tion in Nonequilibrium Systems, ed. S.Muller & Th.Plesser,pp.187-189\(1993\)](#)
8. [H.Miike,H.Yamamoto,M.Momota,H.Hashimoto : "Hydrodynamic Effects Induced by Chemical Wave Propagation", Pattern Formation in Complex Dissipative Systems, ed. S.Kai, pp.191-200\(1992\)](#)
9. [O.Steinbock,H.Hashimoto,S.C.Muller:"Quantitative Analysis of Perio-dic Chemotaxis in Aggregation Patterns of Dictyostelium discoideum", Physica D, Vol.49, pp.233-239 \(1991\)](#)
10. [Y.Ebina,M.Ekida,H.Hashimoto:"Origin of Changes in Electrical Impedance During the Growth and Fermentation Process of Yeast in Batch Culture", Biotechnology and Bio-engineering, Vol.33, pp.1290-1295 \(1988\)](#)
11. [H.Miike,K.Koga,M.Momota,H.Hashimoto:"Spatial Filtering Velocimetry by Dynamic Image Processing", Japanese Journal of Applied Physics, Vol.26, No.9, pp.L1431-1434 \(1987\)](#)
12. [H.Miike,Y.Kurihara,H.Hashimoto,K.Koga:"Velocity-Field Measurement by Pixel-Based Temporal Mutual-Correlation Analysis of Dynamic Image", The Transactions of the IECE of Japan, Vol.E69, No.8, pp.877-882 \(1986\)](#)
13. [H.Miike,Y.Kurihara,K.Koga,H.Hashimoto:"Velocity-Field Measurement of a Vortex by Dynamic Image Processing", Japanese Journal of Applied Physics, Vol.25, No.5, pp.L409-L412 \(1986\)](#)
14. [H.Miike,K.Shimada,K.Ochiai,H.Hashimoto:"Measurement of Particle Movement Using Time Correlation Analsys of Dynamic Image", Japanese Journal of Applied Physics, Vol.25, No.4, pp.634-639 \(1986\)](#)
15. [H.Miike,K.Ochiai,H.Hashimoto,Y.Ebina:"Digital Image Processing Study on Dynamics of Dissipative Structure in Nematic Liquid Crystal", Journal of the Physical Society of Japan, Vol.54, No.5, pp.1724-1729 \(1985\)](#)
16. [H.Hashimoto,K.Kakahara,H.Miike,Y.Ebina:"Rapid Bacterial Testing Method by Size Distribution Measuring with Laser Light Scattering", The Transactions of the IECE of Japan, Vol.E68, No.5, pp.304-308 \(1985\)](#)
17. [H.Miike,Y.Kuriyama,Y.Itou,H.Hashimoto,Y.Ebina:"Speed-Distribution Analysis of the Convective Flow in Electro-hydraulic](#)

18. [Instability of Nematic Liquid Crystal", Physical Review A, Vol.31, No.4, pp.2756-2759 \(1985\)](#)
19. [H.Miike,Y.Kuriyama,H.Hashimoto,Y.Ebina:"Laser Light Scattering Study on the Electrohydrodynamic Instability of Nematic Liquid Crystal", Journal of the Physical Society of Japan, Vol.53, No.10, pp.3280-3283 \(1984\)](#)
20. [H.Miike,M.Hideshima,H.Hashimoto,Y.Ebina:"Dynamic Laser-Light Scattering Study on Bacterial Growth", Japanese Journal of Applied Physics, Vol.23, No.8, pp.1129-1132 \(1984\)](#)
21. [H.Miike,S.Ikemoto,K.Ochiai,H.Hashimoto,Y.Ebina:"New Dynamic Image Processing Technique for the Analysis of Texture Movement: Study of the Dissipative Structure in the Electrohydrodynamic Instability of Nematic Liquid Crystal", Japanese Journal of Applied Physics, Vol.23, No.6, pp.L379-L381 \(1984\)](#)
22. [H.Miike,Y.Asashiba,H.Hashimoto,Y.Ebina:"Study of the Electrical Impedance as an in situ Sensor for the Ethanol Fermentation", Japanese Journal of Applied Physics, Vol.23, No.3, pp.386-387 \(1984\)](#)

## **Presentations**

1. [H.Yamada, H.Miike, K.Koga, H.Hashimoto:"Image Analysis of Laminar Necklace Vortex Produced by a Three-Dimensional Protuberance", Proceedings of the Third Asian Symposium on Visualization, The Visualization Society of Japan, ed. Y.Nakayama & T.Tanahashi, pp.675-680, \(1994\)](#)
2. [H.Miike, Y.Ebina, H.Hashimoto, T.Miyaji:"A Rapid and Exact Estimation Method of MIC in Measuring Antibiotic Susceptibility", World Congress on Medical Physics and Biomedical Engineering 1982 \(Hamburg\) , pp.2.13, \(1982\)](#)
3. [H.Hashimoto, Y.Ebina,H.Miike, T.Miyaji:"An Automated Method for Identifying Bacteria by Simultaneous Measurement of Electrical Impedance and Turbidity", Proceedings of the Vth ICEBI \(Tokyo\), pp.257-260, \(1981\)](#)