

# CURICULUM VITAE

Kohei Arai (as of February 2024)



## A. Office Address

Emeritus Professor, Saga University  
1 Honjo, Saga 840-8502 Japan  
Tel: (+81)(952)8567  
Fax: (+81)(952)(8650)  
E-mail: [REDACTED]

## B. Home address

[REDACTED] Japan

## C. Personal Information

Date of Birth : February 17, 1949  
Sex : Male  
Place of Birth : Tokyo  
Nationality : Japan  
Marital Status : Married  
Passport Number :

## D. Education

1. Philosophy of Master Degree in Electronics Engineering, Nihon University, Japan, 1974.
2. Philosophy of Doctor Degree in Information Science, Nihon University, Japan, 1982.

## E. Employment

1. Nihon Telephone and Telecommunication, Telecommunication Laboratory, from 1967 to 1972.
2. University of Tokyo, Institute of Industrial Science and Engineering, from 1974 to 1979
3. National Space Development Agency of Japan: NASDA (Current Japanese Aeronautical Exploration Agency of Japan: JAXA), from 1979 -1990.
4. Post-Doctoral Fellow, Natural Science and Engineering Council of Canada (Working at Canada Center for Remote Sensing), from 1985-1987
5. Saga University, 1990-2014 Then Professor emeritus
6. JICA Short Term Expert; 2001-2010
7. Saga University, Guest Researcher, 2014- now.
8. Adjunct Prof. University of Arizona (USA): 1998-now:
9. Graduate School of the Nippon Bunri University, (2006-2010)
10. Kurume National College of Technology (2008-2010, 2014-2016, 2017, 2018)
11. Toyohashi University of Technology, Guest Lecture (2016)
12. Serita Constuction Co. Ltd., Technical Advisor (2016-now)
13. Map Station Co. Ltd, Technical Advisor, (2017)
14. Saga TV, Regular Commentator Kachi-Kachi Press Program, (2017-now)
15. Institute of Kyushu Pioneer of Space, Technical Advisor, (2018-now)
16. Kurume Institute of Technology, Adjunct Professor (2018-now)
17. Nishi-Kyushu University, Adjunct Professor (2019-now)
18. Pasco Co. Ltd., Technical Advisor (2019-now)
19. Saga Bank Co. Ltd. Technical Advisor (2023-now)

## F. Research

1. Research Interests:
  - i. Satellite Remote Sensing, Radiative Transfer Equation, Calibration and Validation,
  - ii. Human-Computer Interaction, Computer Vision, Robot Vision, Sport Vision
  - iii. Non-Linear Optimization Theory,
  - iv. Wavelet Analysis,
  - v. Image Recognition and Understanding,
  - vi. Artificial Intelligence,

- vii. Big data analysis
  - viii. Digital Transformation
  - ix. IoT, Blockchain, Robot Process Automation, Data Science, Data analytics
2. Research Collaboration:
- i. Radiative Transfer Equation with Optical Science Laboratory, University of Arizona (Adjunct Professor of the University), U.S.A.
  - ii. Satellite Remote Sensing (Application of remote sensing data) with JAXA and Advanced Institute of Science and Technology: AIST, Japan.
  - iii. Information System Research Group, Informatics Dept., Sebelas Maret University, Indonesia.
  - iv. Human Computer Interaction with Institute of Technology in Sarabaya, Indonesia
  - v. Image recognition and understanding with Electronics Engineering Polytechnics in Surabaya, Indonesia.
  - vi. Genetic algorithm Optimization Theory with Vinh University, Vietnam.
  - vii. e-learning system with State University of Malang, Indonesia.
  - viii. Ad Hoc network protocols with State University of Jakarta, Indonesia.
  - ix. Search engine and Augmented Reality with Brawijaya University, Indonesia.
  - x. Computer vision, Riau University, Indonesia.
  - xi. Cattle productivity improvement, Advanced Institute of Science and Technology: AIST, Japan.
  - xii. Total column CO<sub>2</sub>, CH<sub>4</sub> measurements with JAXA and NIES (National Institute of Environmental Science)
  - xiii. Phytoplankton detection from space with Ariake Sea Research Group of Saga University
  - xvi. Wild animal detection with Fukuoka Prefectural Research Institute of Agriculture and Forestry
  - xvii. Rice paddy field monitoring with satellite, drone, ground based camera montors: Saga Prefectural Research Institute of Agriculture
  - xviii. Tea field monitoring with satellite, drone, ground based camera montors: Saga Prefectural Research Institute of Tea
  - xviiii. Tea field monitoring with satellite, drone, ground based camera montors: Oita Prefectural Research Institute of agriculture, forestry and fishery

### ***G. Teaching Experience***

1. Signal Processing, Saga University (1990-1995)
  2. Informatics Statistics, Saga University (1990-1995)
  3. Overview of Information Science, Saga University (1990-1995)
  4. Remote Sensing, Saga University (1990-2014)
  5. Special Lecture on Sensing Systems, Graduate School of the Saga University (1990-2014)
  6. Ecology and Environment Monitoring from Space, Graduate School of the Saga University (1995-2000)
  7. Image Processing, Saga University (1995-2000)
  8. Overview of Informatics Fundamentals, Saga University (2000-2004)
  9. Vector Analysis, Saga University (1996-2004)
  10. System Theory I, Saga University (1996-2004)
  11. System Theory II, Saga University (1996-2004)
  12. Patter Recognition, Saga University (1996-2004)
  13. Experiment IV(Informatics), Saga University (1996-2004)
  14. Applied Linear Algebra, Saga University (1996-now)
  15. Computer Graphics, Saga University (1996-2008)
  16. Experiments on Simulations, Saga University (2005-2014)
  17. Modeling and Simulation, Saga University (2005-2014)
  18. Special Lecture on Information Processing and Analysis I, (2005-2009)
  19. Special Lecture on Information Processing and Analysis II, (2005-2009)
  20. Special Lecture on Pattern Information Understandings, (2005-2014)
  21. Special Lecture on Space Engineering A, Graduate School of the Nippon Bunri University (2005-2011)
  21. Special Lecture on Space Engineering B, Graduate School of the Nippon Bunri University (2005-2011)
  22. Special Lecture on Applied Numerical Analysis for Informatics, Graduate School of the Saga University (2006)

23. Special Lecture on Educational Information Systems, Graduate School of the Saga University (2007)
24. Scientific English, Saga University (2005-2014)
25. Special Lecture on Information Security and Ethics, Graduate School of the Saga University (2005-2014)
26. Ethics, National Institute of Technology, Kurume College (2008-2010, 2014-2016)
27. Wavelet Analysis, Toyohashi University of Technology (2016)
28. Computer Architecture, National Institute of Technology, Kurume College (2016)
29. Digital Communication, National Institute of Technology, Kurume College (2016)
30. Special lecture of State of the art on Human-Computer Interaction, National Institute of Technology, Kurume College (2017)
31. Short Term Expert of JICA, SCADA, Human-Computer Interaction, Computer Vision, etc. (2000-2010)
32. Computer literacy, Nishi-Kyushu University(2018-2022)
33. Data Science, Nishi-Kyushu University(2022-now)
34. Artificial Intelligence, Kurume Institute of Technology(2020-now)
35. Exercise of Artificial Intelligence, Kurume Institute of Technology(2020-now)

#### ***H. Professional Membership and Affiliation***

1. Vice Chair of Science Commission A, COSPAR, ICSU, (2010-2020)
2. Vice Chair of Task Force for GEO, COSPAR, ICSU, (2010-2020)
3. ASTER Calibration Team Leader, (1998-2015)
4. Adjunct Professor of University of Arizona, (1998-2022)
5. Executive Director of Japan Remote Sensing Society, (2003-2005)
6. Post-Doctoral Fellow of Natural Science and Engineering Council Canada, (1985-1987)
7. Councilor on Aeronautical Electronics Engineering of Ministry of Science and Technology, (1998-2000)
8. Editorial Board member, Canadian Society on Remote Sensing (1985-1994)
9. Lecturer of Vinh University (Expert system), Veitnum (2011)
10. Cooperative Member, Science Council of Japan, (2012-2014)
11. Lecture of Graduate School of Nippon Bunri University, (1998-2010)
12. Editor-in-Chief, International Journal of Advanced Computer Science and Applications, (2013-now)
13. Award Committee Member of COSPAR, ICSU, (2016-now)
14. Chairperson of Science and Information Organization (2013-now)
15. Editor-in-Chief, International Journal of Intelligent System and Applications(2014-now)
16. Lecturer at Kurume National College Technology (2008-2010, 2014-2016)
17. Lecturer at Toyohashi University of Technology (2016)
18. Lecture at Riau University: PEKANBARU (2016)
19. Guest Lecturer of Pakuan University, Indonesia (2018)
20. Lecturer of Qarshi University, Pakistan, 2018
21. Lecturer of Paretina University, Kosovo, 2019
22. Lecture Brawijaya University in Malang, Artificial Intelligence: AI Now, FILKOM Tech Talks #2 webinar, 2020
23. Lecture at Riau University: special lecture on AI (2021)
24. Visiting Professor, Brawijaya University, 2022
25. Lecture University of Bengkulu, Indonesia, Artificial Intelligence and Its Applications as well as State of the Arts of AI Hardware and Software, 2023.
26. Lecture of Bogor Agricultural University, Indonesia, Sensor and IoT as well as AI for agricultural field monitoring, 2023
27. Lecture of Paretina University, Kosovo, 2023
28. Lecture of Bengkulu University, AI based Classification Methods, (Invited Speech and Special Lecture), 2023.
29. Adjunct Professor, Brawijaya University, 2024

#### ***I. Received Award***

1. Best Paper Award from Japan Remote Sensing Society, 1991
2. Best Paper Award from Japan Remote Sensing Society, 1999
3. The Day for Electronic Magnetic Wave Award from Kyushu Branch of Ministry of General Affair Japan, 2004
4. Best Invention Award from Saga University, 2006
5. Best Presentation Award, Visualization Society of Japan, 2009
6. Services and Contribution Award for HCI Track, Information Technology: Next Generation, 2011

7. Best Paper Award in 2011, International Journal of Advanced Computer Science and Applications, Science and Information Organization, 2011
8. Best Paper Award from Japan Society on Photogrammetry and Remote Sensing, 2011
9. Saga Prefecture Universal Design Award in 2013, Saga Prefectural Governor, 2012
10. Keynote Speech Award of Industrial Electronics Seminar 2012 from Electronics Engineering Polytechnic Institute of Surabaya, 2012
11. Organization Award for HCI and BMI Track, Information Technology: Next Generation, 2013
12. Services and Contribution Award for HCI Track, Information Technology: Next Generation, 2013
13. Best Paper Award for International Conference on Advanced Computer Science and Information Systems: ICACSIS 2013.
14. Organization Award for Healthcare Track, Information Technology: Next Generation, 2014
15. Science and Engineering Award (Research Section) from Minister of Education, Culture, Sports, Science Ministry 2014
16. Invited Speech Award of Science and Information Organization Conference 2014, Science and Information Organization Conference, 2014
17. Track Organizing Award of Future of Digital Health, Information Technology: Next Generation, 2015
18. Keynote Speech Award of International Seminar on Intelligent Technology and Its Applications 2015, Institute of Technology of Surabaya, 2015
19. Contribution Award as a Speaker, Steering Committee member and Session Chair at the Science and Information Conference 2015, Science and Information Organization, 2015
20. Track Organizing Award of e-Health and Precision Medicine, Information Technology: Next Generation Conference, 2016
21. Contribution Award as an Invited Speaker, Steering Committee member and Session Chair at the Science and Information Computing Conference 2016, Science and Information Organization, 2016
22. ICSU/COSPAR Vikram Sarabhai Medal, International Council on Science Union, Committee on Space Research 2016
23. Contribution Award as a Session Chair at the Science and Information Intelligent System Conference 2016, Science and Information Organization, 2016
24. Keynote Speech Award of ICACSIS 2016,
25. Keynote Speech Award of SIET 2016,
26. Keynote Speech Award of Icon/EEI 2016,
27. Contribution Award as a Session Chair at the Science and Information Future Technology Conference 2016, Science and Information Organization, 2016
28. Track Organizing Award of Computer vision, Information Technology: Next Generation Conference, 2017
29. Keynote Speech Award "State of the Art on Human-Computer Interaction: Next Generation" Information Technology: Next Generation Coneference, ITNG 2017
30. Contribution Award as a Steering Committee member and Session Chair at the Science and Information Computing Conference 2017, Science and Information Organization, 2017
31. Contribution Award as a Session Chair at the Science and Information Intelligent System Conference 2017, Science and Information Organization, 2017
32. Invited Speaker Award: The 4<sup>th</sup> LISAT Symposium, LAPAN and IPB (Bogor Agricultural University), 2017
33. Contribution Award as a Session Chair at the Science and Information Future Technology Conference 2017, Science and Information Organization, 2017
34. Student Paper Award, Yoshinori Bando, Nan Bu, Osamu Fukuda, Hiroshi Okumura, Kohei Arai, Object classification using a deep convolutional neural network and its application to myoelectric hand control, Proceedings of the International Symposium on Artificial Life and Robotics (AROB2017), GS12, 2017.
35. Contribution Award as a Session Chair at the Science and Information Future Information and Technology Conference 2018, Science and Information Organization, 2018
36. Contribution Award as a Session Chair at the Science and Information Computing Conference 2018, Science and Information Organization, 2018
37. Contribution Award as a Session Chair at the Science and Information Future Technology Conference 2018, Science and Information Organization, 2018
38. Contribution Award as a Session Chair at the Science and Information Intelligent Systems Conference 2018, Science and Information Organization, 2018
39. Best Paper Award of the 5th IEEE International Conference on Engineering Technologies and Applied Sciences (ICETAS) 2018, Science and Information Organization, 2018

40. Invited Speaker Award: The 5<sup>th</sup> LISAT Symposium, LAPAN and IPB (Bogor Agricultural University), 2018
41. Keynote Speech Award, Global Environmental Monitoring from Space, Keynote Speech at the International Conference on Advanced Civil and Environmental Engineering, ICA<sup>n</sup>CEE 2018, Bali, Indonesia.
42. Keynote Speech Award, State of the Arts of Human-Computer Interaction, Keynote Speech at the 3<sup>rd</sup> International Conference on Technology and Vocational Education and Training, UNJ, Jakarta State University, 2018.
43. Keynote Speech Award, Global Environmental monitoring from Space, Keynote Speech at the 1<sup>st</sup> ICCEAS (International Collaboration Conference on Engineering and Applied Science), and ICA<sup>n</sup>CEE 2018, and ICDEMM 2018, Riau and Udayana Universities, 2018.
44. Invited speech award, Vicarious Calibration of LISA/LISAT, Invited Speech, The 5<sup>th</sup> LISAT Symposium on Lana-IPB Satellite for Food Security and Environmental Management 2018.
45. Keynote Speech Award, Kohei Arai (Keynote Speech), AI and Remote Sensing Satellite Big Data Analysis, Proceedings of the 1<sup>st</sup> Annual Advanced Technology Applied Science and Engineering Conference, ATASEC 2019, Polytechnics State of Malang, 2019.
46. 2019 Takeo City Board of Education Award (Takeo City Board of Education Certificate of Commendation)
47. Keynote Speech Award, Kohei Arai (Keynote Speech), Remote sensing satellite big data AI analysis, Proceedings of the Indonesian Section IEEE AESS/GRSS Chapter Conference, 2019.
48. Keynote Speech Award, Kohei Arai (Keynote Speech), Artificial Intelligence: AI Now, FILKOM Tech Talks #2 webinar, Brawijaya University in Malang, on 23<sup>rd</sup> October 2020
49. Invited Speech Award, Kohei Arai, Activities of Takeo branch of Young Astronauts Club, Space Education Regional Forum in Saga, at Saga Prefectural Space and Science Museum, June 13, 2022
50. Keynote Speech Award, Kohei Arai (Keynote Speech), Current Status of Artificial Intelligence Related Research, at Institute Technology in Surabaya, on 21 July 2022, ISITIA 2022.
51. Keynote Speech Award, Kohei Arai (Keynote Speech), State of the Arts of Artificial Intelligence: AI and Its Applications, The 9<sup>th</sup> International Conference on Electrical Engineering, Computer Science and Informatics: EECSI 2022, Jakarta, Indonesia, 2022.
52. Kohei Arai (Special Lecture Award), Artificial Intelligence and Its Applications as well as State of the Arts of AI Hardware and Software, University of Bengkulu, Indonesia, 2023.
53. Kohei Arai (Special Lecture Award), Sensor and IoT as well as AI for agricultural field monitoring, Bogor Agricultural University, Indonesia, 2023.
54. Kohei Arai, Special Lecturer Award, AI and Its Applications, PISU (Prishtina International Summer University) 2023.
55. Kohei Arai, AI and Its Applications, (Invited Speech and Special Lecture), Brawijaya University, 2023.
56. Kohei Arai, AI based Classification Methods, (Invited Speech and Special Lecture), Bengkulu University, 2023

***J. Names of PhD Students for whom I supervised.***

1. Kaname Seto (Japanese), Prediction method with variable reference time series data by means of dynamic characteristic extraction, 2000.
2. Satoshi Yoshizawa (Japanese), Genetic algorithm based clustering method utilizing spectral and context information, 2003.
3. Shigeki Kuzuoka (Japanese), Forest parameter estimation method based on tree model by means of Ray Tracing, 2003.
4. Liang Xing Ming (Chinese), Simultaneous estimation of refractive index and size distribution using solar direct, diffuse and areole based on Simulated Annealing, 2004.
5. Chen Xing Quang (Chinese), Category decomposition method using hyper-spectral data based on improved sub-space method, 2006.
6. Ya Liu Ding (Chinese), Tree parameter estimation based on Monte Carlo simulation and verification of its validity with two-dimensional arrayed trees, 2007.
7. Bu Quang Quong (Chinese), Improvement of clustering performance of the proposed clustering method which allows a variety of distribution in feature space, 2008.
8. Masahiro Inoue (Japanese), Automatic discrimination method for identifying body structure using ultrasonic measuring instrument, 2010.
9. Tomoko Nishikawa (Japanese), Method for determination of base functions for optimum wavelet for moving target identifications, 2010.

10. Achmad Basuki (Indonesian), Cellular automata based hot mudflow disaster area prediction model and its application to simulation for Sidoarjo hot mudflow, 2011.
11. Tri Harsono (Indonesian), Cellular automata based micro-traffic model taking into account drivers' behavior and its application to simulation for evacuation from disaster area, 2011.
12. Lipur Sugiyanta (Indonesian), Agent based ad-hoc networking with moving nodes minimizing the number of hops, loss of packet, energy and delay, 2011.
13. Ronny Mardiyanto (Indonesian), Accurate eye-based Human-Computer Interaction (HCI) and its applications to support system for handicap and elderly person, 2011.
14. Tolle Herman (Indonesian), Feature extraction-based information retrieval method and its applications for TV commercials information extraction and E-Comic & E-Learning content adaptation to mobile devices, 2011.
15. Yasunori Terayama (Japanese), Red tide identification and its shape discrimination through measurements of sea surface spectral reflectance and polarization characteristic, 2011.
16. Kenta Azuma, Automatic threshold determination method for accumulated area estimation with remote sensing satellite data, 2012.
17. Mariko Oda (Japanese), Learning support system for pronunciation, character exercises using 3D CG animations, 2012.
18. Tran Xuan Sang (Vietnamese), Multi-Criteria Decision Making and Task Allocation in Multi-Agent Based Rescue Simulation, 2012.
19. Rosa Andrie Asmara (Indonesian), Human gait for gender classification using Gait Energy Motion as a Free-Model and skeleton feature selection as a Model based feature extraction, 2013.
20. Cahya Rahmad (Indonesian), Information retrieval method with shape features extracted by layered structure representation and its application to shape independent clustering, 2013.
21. Steven Ray Sentinuwo (Indonesian), A Traffic Cellular Automata Model Considering Spontaneous Braking and Driver Scope Awareness Parameters, 2013.
22. Anik Nur Handayani (Indonesian), Collaborative e-learning system utilizing Question Answering system with domain knowledge and answer quality predictor, 2014.
23. Youm Jung Sun (Korean), Improvement of business efficiency based Business Process Re-engineering for local governments, 2014.
24. Indra Nugraha Abdullah (Indonesian), Identification of Ornamental Plant which Possess Medicinal Function Based on Its Leaf Shape, Texture and Color Features, 2015
25. Iqbal Ahmed (Bangladesh), Sustainable GSLA Framework development for IT and ICT based Industries, 2018.

### ***K. Research Fund***

1990

AIST: Advanced Institute for Science and Technology, ASTER Calibration (2000000)

1991

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1992

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1993

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1994

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1995

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1996

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1997

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1998

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

1999

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

2000

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

2001

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

JICA seminar (ICT technology for higher education) (JICA (1130000))

2002

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

JICA seminar (ICT technology for higher education JICA (1130000))

2003

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

JICA seminar (ICT technology for higher education JICA (1130000))

2004

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2000000)

Cooperative research with Private company about Water marking (100000)

JICA seminar (ICT technology for higher education JICA (1130000))

Ministry of Education, Center of Excellence: COE (1400000)

2005

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2625000)

2006

Satellite data utilization promotion from Kyushu Economic Promotion (128600)

Server Support Tool (285000)

JST(Sounder) (1075000)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2625000)

MoE (Computer input by human eyes only) (285000)

2007

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (300000)

JAXA (Space open laboratory) (1900000)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (2625000)

Leaning Management System (285000)

Counter pert seminar for Institute of Technology Surabaya) (226000)

2008

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (706271)

JAXA (Space open laboratory) (8000000)

Cooperative research with private company about Nori (950000)

Ministry of General Affair: MOG (Winds satellite) (2600000)

JICA funded Counter pert seminar for Institute of Technology Surabaya (1563000)

JICA funded Mobile Leaning Seminar (2938000)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1950000)

2009

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

JAXA (Space open laboratory) (9000000)

Ministry of General Affair: MOG (Winds satellite) MOG (920000)

Cooperative research with private company about Computer input by human eyes only (1064000)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1850000)

JICA funded Mobile Leaning Seminar (3164000)

Ministry of Education funded MOE (Red tide) (15500000)

Ministry of Education funded MOE (Small satellite) (15000000)

2010

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Ministry of Education funded MOE (Red tide) (10500000)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1850000)

World bank->Vinh University (Expert system) (428500)

Ministry of Environment funded GOSAT LIDAR (475000)

JAXA funded GOSAT FTS (500000)

Ministry of Education funded MOE (Computer input by human eyes only) (700000)

2011

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (300000)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (981750)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1850000)

JST (Application of HCI) (1400000)

Cooperative research with private company about Radio-control helicopter (400000)

Ministry of Education funded MOE (Computer input by human eyes only) (130000)

Ministry of Education funded MOE (Ozone) (320000)

2012

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (300000)

Radio-control helicopter (381539)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (981750)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1814000)

Cooperative research with private company about AR (950000)

Cooperative research with private company about BMI (475000)

Ministry of Education funded MOE (Computer input by human eyes only) (130000)

Ministry of Education funded MOE (Ozone) (450000)

2013

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (998550)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1527273)

Ministry of Education funded MOE (Ozone) (450000)

Saga University, Phytoplankton detection from space (450000)

2014

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (998550)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1527273)

Saga University, Phytoplankton detection from space (450000)

2015

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (998550)

AIST: Advanced Institute for Science and Technology, ASTER Calibration ASTER (1527273)

Saga University, Phytoplankton detection from space (450000)

2016

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Ministry of Environment funded GOSAT LIDAR (950000)

JAXA funded GOSAT FTS (998550)

AIST: Advanced Institute for Science and Technology, Cattle productivity improvement (300000)

Saga University, Phytoplankton detection from space (450000)

2017

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (400000)

Saga University, Phytoplankton detection from space (450000)

AIST: Advanced Institute for Science and Technology, Cattle productivity improvement (300000)

2018

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (200000)

2019

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (200000)

2020

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (200000)

2021

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

Satellite data utilization promotion from Kyushu Economic Promotion Kyushu (200000)

2022

JAXA funded GOSAT FTS (998550)



Ministry of Environment funded GOSAT LIDAR (950000)

2023

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

2024

JAXA funded GOSAT FTS (998550)

Ministry of Environment funded GOSAT LIDAR (950000)

#### **L. Published Book**

1. Kohei Arai, Manual of Semiconductor Circuits, Ohm Publishing Co. Ltd., Toshio Utsunomiya edit., 1975.
2. K. Tsuchiya, Kohei Arai and T. Igarashi, Marine Observation Satellite-1(MOS-1), Remote Sensing Reviews, 3, 2, 59-101, Golden Breach Science Publish Co. Ltd., 1985.
3. Kohei Arai, Overview of Remote Sensing, Asakura-Shoten Publishing Co. Ltd., Kiyoshi Tsuchiya Edit., 1990.
4. Kohei Arai, Image Analysis Handbook, University of Tokyo Publishing, Mikio Takagi and Haruhisa Shimoda Edit., 1991.
5. Kohei Arai, Illustrative Book on Remote Sensing, Japan Geological Association Publishing, Remote Sensing Research Group Edit., 1992.
6. Kohei Arai, Masao Moriyama, Fundamentals Theory on Information, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 1995.
7. Kohei Arai, Masao Moriyama, Fundamentals Exercises on Information, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 1995.
8. Kohei Arai, Technical Term Dictionary on Civil Engineering, Gihodo Publishing Co. Ltd., Japan Society on Civil Engineering Edit., 1999.
9. Kohei Arai, Fundamental Theory on Image Processing Algorithms, Gakujutsu-Tosho-Shuppan, 1999.
10. Kohei Arai, et.al., Computer Literacy, Muisuri Publishing Co. Ltd., 1999.
11. Kohei Arai, Vector Analysis for Image Processing, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 1999.
12. Kohei Arai, Fundamental Theory on Pattern Recognition, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 1999.
13. Kohei Arai, Earth Observation Satellite Imagery Data Utilization Methods, Morikita-Shuppan Publishing Co. Ltd., 2000.
14. Kohei Arai, Fundamental Theory on Wavelet Analysis, Morikita-Shuppan Publishing Co. Ltd., 2000.
15. Kohei Arai, et.al., Fundamental Theory on Informatics for Liberal Arts Students, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., Kohei Arai, Yuzuru Morita Edit., 2001.
16. Kohei Arai, Fundamental Theory on Remote Sensing, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 2001.
17. Kohei Arai, Earth Observation Satellite Imagery Data Processing Using Java Language, Morikita-Shuppan Publishing Co. Ltd., 2001.
18. Kohei Arai, Leland Jameson, Earth Observation Satellite Data Utilization Methods by Means of Wavelet Analysis, Morikita-Shuppan Publishing Co. Ltd., 2001.
19. Kohei Arai, Lecture Note on Remote Sensing, Morikita-Shuppan Publishing Co. Ltd., 2004.
20. Kohei Arai, Lecture Note on Wavelet Analysis, Kindai-Kagaku-Shuppan Publishing Co. Ltd., 2006.
21. Kohei Arai, Lecture Note on Applied Linear Algebra, Kindai-Kagaku-Shuppan Publishing Co. Ltd., 2006.
22. Kohei Arai, Overview on Social Life Mobility Support, Saga University Medical Faculty Publishing, Satoshi Saiba, Etsuo Horikawa, Kiyomi Matsuo Edit., 2007.
23. Kohei Arai, Fundamentals on Informatics in Ubiquitous Society - Informatics for Business, Gakujutsu-Tosho-Shuppan Publishing Co. Ltd., 2008.
24. Kohei Arai, Chapter 4: A sea surface temperature estimation method for ocean areas and seasons using a GIS as Neural Network, Sediment and Ecohydraulics INTERCOH 2005, T. Kusuda, H. Yamanishi, J. Spearman and J. Z. Gailani, Edt. Elsevier, ISBN:978-0-444-53184-1, 43-51, 2008.
25. Kohei Arai and Hiromi Uwataki, Computer input system based on viewing vector estimation with iris center detection from face image acquired with web camera allowing users' movement, Electronics and Communication in Japan, 92, 5, 31-40, John Wiley and Sons Inc., 2009.
26. Ramachandran, Justice, Abrams (Edit.), Kohei Arai et al., Land Remote Sensing and Global Environmental Changes, Part-II, Sec.5: ASTER VNIR and SWIR Radiometric Calibration and Atmospheric Correction, 83-116, Springer 2010.

27. Kohei Arai and Kenro Yajima, Communication Aid and Computer Input System with Human Eyes Only, Electronics and Communications in Japan, Volume 93, Number 12, 2010, pages 1-9, John Wiley and Sons, Inc., 2010.
28. Kohei Arai, Tri Harsono, Achmad Basuki, Cellular automata for traffic modeling and simulation in a situation of evacuation from disaster areas, Cellular Automata-Simplicity Behind Complexity, Edit. Aiejandro Salcido, ISDN:978-953-307-230-2, InTech Publishing Co.Ltd., 193-218, 2011.
29. Kohei. Arai, Comprehensive Book for Remote Sensing from Begging, Japan Remote Sensing Society Edit., 2011
30. Kohei Arai, Lipur Sugiyanta, Approach of improved topology development protocol in Ad Hoc network minimizing the number of hops and maintaining connectivity of mobile terminals which move from one to the others, Anthony V. Stavros Edit., Advances in Communication and Media Research, Vol.8, ISBN 978-1-61324-794-5, 2011
31. Remote Sensing Society of Japan Edit. Kohei Arai, et al., Remote Sensing -An Introductory Textbook-, Maruzen Planet Publishing Co. Ltd., Chapter 9 Radiometric Correction and Cloud Detection, 155-172, p.301, ISBN978-4-86345-185-8, 2013.
32. J. Kaprzy Edit., Kohei Arai, Rescue System for Elderly and Disabled Persons Using Wearable Physical and Psychological Monitoring System, Studies in Computer Intelligence, 542, 45-64, Springer Publishing Co. Ltd., 2014.
33. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit. Intelligent Systems in Science and Information 2014 - Studies in Computational Intelligence 591 (Hardback)
34. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Systems in Science and Information 2014 - Studies in Computational Intelligence 591 (Paperback)
35. Kohei Arai, Computer Input by Human Eyes Only and Its Applications, Intelligent Systems in Science and Information, 2014, Studies in Computer Intelligence, 591, 1-22, Springer Publishing Co. Ltd., 2015.
36. Setia Damawan Afandi, Yeni Herdiyeni, Lilik B. Prasetyo, Wahyudi Hashi, Kohei Arai, Hiroshi Okumura, Nitrogen Content Estimation of rice Crop Basedon Near Infrared (NIR) reflectance Using Artificial Neural Network (ANN), Procedia Environmental Sciences, Elsevier, 33, 63-69, 2016
37. Latifi Shahram Edit, Kohei Arai, Computer Input Just by Sight and Its Applications for Disabled Persons, International Technology: Next Generations, ISBN998.3-319-32467-8, 2016.
38. Chen Liming, Kapoor Supriya, Bhatia Rahul, Edit, Kohei Arai, Rescue System with Sensor Network for Vital Sign Monitoring and Rescue Simulations by Taking into Account Triage with Measured Vital Signs, Emerging Trends and Advanced Technologies for Computational Intelligence, 647, Springer, 2016
39. Kohei Arai, Computer Input Just by Sight and Its Applications for disabled Persons, Advances in Intelligent Systems and Computation, 448, Springer, DOI10.:1007/178-3-3-19-32467-8-86, 995-1008, 2016
40. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Systems and Applications: Proceedings of the 2017 Intelligent Systems Conference (IntelliSys) Volume 1 - Advances in Intelligent Systems and Computing (Paperback)
41. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Systems and Applications: Proceedings of the 2017 Intelligent Systems Conference (IntelliSys) Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
42. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Computing: Proceedings of the 2017 Computing Conference, Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
43. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Advances in Information and Communication Networks: Proceedings of the 2017 Future of Information and Communication Conference (FICC), Vol. 1 - Advances in Intelligent Systems and Computing (Paperback)
44. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Computing: Proceedings of the 2017 Computing Conference, Volume 1 - Advances in Intelligent Systems and Computing (Paperback)
45. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Advances in Information and Communication Networks: Proceedings of the 2017 Future of Information and Communication Conference (FICC), Vol. 2 - Advances in Intelligent Systems and Computing (Paperback)
46. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Proceedings of the Future Technologies Conference (FTC) 2017: Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
47. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Proceedings of the Future Technologies Conference (FTC) 2017: Volume 1 - Advances in Intelligent Systems and Computing (Paperback)
48. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Systems and Applications: Proceedings of the 2018 Intelligent Systems Conference (IntelliSys) Volume 1 - Advances in Intelligent Systems and Computing 868 (Paperback)



73. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Systems and Applications: Proceedings of the 2021 Intelligent Systems Conference (IntelliSys) Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
74. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Computing: Proceedings of the 2021 Computing Conference, Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
75. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Advances in Information and Communication Networks: Proceedings of the 2021 Future of Information and Communication Conference (FICC), Vol. 1 - Advances in Intelligent Systems and Computing (Paperback)
76. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Intelligent Computing: Proceedings of the 2021 Computing Conference, Volume 1 - Advances in Intelligent Systems and Computing (Paperback)
77. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Advances in Information and Communication Networks: Proceedings of the 2021 Future of Information and Communication Conference (FICC), Vol. 2 - Advances in Intelligent Systems and Computing (Paperback)
78. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Proceedings of the Future Technologies Conference (FTC) 2021: Volume 2 - Advances in Intelligent Systems and Computing (Paperback)
79. Kohei Arai, Supriya Kapoor, Rahul Bhatia edit., Proceedings of the Future Technologies Conference (FTC) 2021: Volume 1 - Advances in Intelligent Systems and Computing (Paperback)
80. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2021), Advances in Information Technology (Vol.3): Proceedings of the Future Technology Conference 2021, Springer International Publishing, 2022.
81. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information and Communication (Vol.1): Proceedings of the Future Information and Communication Conference 2022, Springer International Publishing, 2022.
82. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information and Communication (Vol.2): Proceedings of the Future Information and Communication Conference 2022, Springer International Publishing, 2022.
83. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information and Communication (Vol.3): Proceedings of the Future Information and Communication Conference 2022, Springer International Publishing, 2022.
84. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Computing (Vol.1): Proceedings of the Computing Conference 2022, Springer International Publishing, 2022.
85. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Computing (Vol.2): Proceedings of the Computing Conference 2022, Springer International Publishing, 2022.
86. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Computing (Vol.3): Proceedings of the Computing Conference 2022, Springer International Publishing, 2022.
87. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Systems and Applications (Vol.1): Proceedings of the Intelligent Systems (IntelliSys) 2022, Springer International Publishing, 2022.
88. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Systems and Applications (Vol.2): Proceedings of the Intelligent Systems (IntelliSys) 2022, Springer International Publishing, 2022.
89. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Intelligent Systems and Applications (Vol.3): Proceedings of the Intelligent Systems (IntelliSys) 2022, Springer International Publishing, 2022.
90. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information Technology (Vol.1): Proceedings of the Future Technology Conference 2022, Springer International Publishing, 2022.
91. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information Technology (Vol.2): Proceedings of the Future Technology Conference 2022, Springer International Publishing, 2022.
92. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2022), Advances in Information Technology (Vol.3): Proceedings of the Future Technology Conference 20212 Springer International Publishing, 2022.
93. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information and Communication (Vol.1): Proceedings of the Future Information and Communication Conference 2023, Springer International Publishing, 2023.
94. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information and Communication (Vol.2): Proceedings of the Future Information and Communication Conference 2023, Springer International Publishing, 2023.
95. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information and Communication (Vol.3): Proceedings of the Future Information and Communication Conference 2023, Springer International Publishing, 2023.
96. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Computing (Vol.1): Proceedings of the Computing Conference 2023, Springer International Publishing, 2023.
97. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Computing (Vol.2): Proceedings of the Computing Conference 2023, Springer International Publishing, 2023.
98. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Computing (Vol.3): Proceedings of the Computing Conference 2023, Springer International Publishing, 2023.

99. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Systems and Applications (Vol.1): Proceedings of the Intelligent Systems (IntelliSys) 2023, Springer International Publishing, 2023.
100. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Systems and Applications (Vol.2): Proceedings of the Intelligent Systems (IntelliSys) 2023, Springer International Publishing, 2023.
101. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Intelligent Systems and Applications (Vol.3): Proceedings of the Intelligent Systems (IntelliSys) 2023, Springer International Publishing, 2023.
102. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information Technology (Vol.1): Proceedings of the Future Technology Conference 2023, Springer International Publishing, 2023.
103. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information Technology (Vol.2): Proceedings of the Future Technology Conference 2023, Springer International Publishing, 2023.
104. Arai, K. (Ed), Bhatia, R. (Ed), Kapoor, S. (Ed) (2023), Advances in Information Technology (Vol.3): Proceedings of the Future Technology Conference 2023, Springer International Publishing, 2023.
- 105.

**M. Publications (Refereed Journal Papers)**

1. Kohei Arai, Yasuhiko Yasuda, Shinichi Kato, Kanji data compression, Journal of the Institute of Image Electronics Engineers, Vol.6, No.1, pp.16-24, Jan.1977.
2. Kohei Arai, Yasuhiko Yasuda, Research on linear density conversion algorithm for facsimile images, Journal of the Institute of Image Electronics Engineers, Vol.7, No.1, pp.11-18, Jan.1978.
3. Kohei Arai, Yasuhiko Yasuda, Data compression with macroscopic structure extraction of facsimile images, Journal of the Institute of Image Electronics Engineers of Japan, Vol.7, No.2, pp.63-71, Apr.1978.
4. Kiyoshi Tsuchiya, Kohei Arai, Landsat ground station - Landsat MSS image processing algorithm, Journal of the Television Society, Vol.34, No.9, pp.34-39, Nov.1980.
5. Kiyoshi Tsuchiya, Hiroyuki Nakamura, Kohei Arai, Superstructure format adopted from Landsat 4, Journal of the Japanese Society of Remote Sensing, Vol.1, No.1, pp.1-8, Nov.1981.
6. Kiyoshi Tsuchiya, Kohei Arai, Naka Ishida, Shading correction of Landsat 3 RBV camera, Journal of the Japan Remote Sensing Society, Vol.2, No.2, pp.39-48, Apr.1982.
7. Kohei Arai, Geometric and radiometric performance evaluation for Landsat 4TM, Journal of the Japanese Society of Remote Sensing, Vol.3, No.2, pp.35-46, Mar.1983.
8. Kohei Arai, Naka Ishida, Correction algorithm for line start anomaly in Landsat 3 MSS, Journal of the Japanese Society of Remote Sensing, Vol.4, No.3, pp.65-75, Jan.1984.
9. Kohei Arai, Research on improving the attitude determination accuracy of Landsat 3, Journal of the Japanese Society of Remote Sensing, Vol.5, No.2, pp.135-140, Apr.1985.
10. Kohei Arai, Optimal spatial resolution in multispectral image classification, Journal of the Japan Remote Sensing Society, Vol.5, No.3, pp.199-205, Jul.1985.
11. Kohei Arai: About Ocean Observation Satellite No. 1, Marine Science Publishing "Marine Science", Vol.17, No.8, p.510-516, 1985,
12. Kohei Arai, Preliminary evaluation of the performance of MOS-1 mission equipment, Journal of the Japan Remote Sensing Society, Vol.6, No.3, pp.245-256, Jul.1986.
13. Kohei Arai, TM image classification considering seasonal variations in texture information, Journal of the Photogrammetry Society of Japan, Vol.26, No.4, pp.24-31, Oct.1987.
14. Kohei Arai, Selection of training samples in TM image classification, Journal of the Japan Photogrammetry Society, Vol.26, No.SE-2, pp.53-60, Dec.1987.
15. Kohei Arai, Image classification method using spectral and spatial information, Journal of the Japan Remote Sensing Society, Vol.7, No.4, pp.327-334, Dec.1987.
16. Kohei Arai, Maximum likelihood image classification considering inter-pixel correlation, Journal of the Photogrammetry Society of Japan, Vol.27, No.1, pp.19-24, Jan.1988.
17. Kohei Arai, Preliminary Assessment of Radiometric Accuracy for MOS-1 Sensors, International Journal of Remote Sensing, Vol.9, No.1, pp.5-12, Apr.1988.
18. Kohei Arai, Noise removal in space communications, Journal of the Japan Society of Medical Electronics (ME), Vol.2, No.6, pp.394-400, Jun.1988.
19. Kohei Arai, A Study on Reducing Abnormal Elements in Automatic Computation of Elevation from Satellite Data, Journal of International GEOCARTO, Vol.3, No.2, pp.45-50, Jul.1988.
20. Kohei Arai, The Data Network System for Advanced Earth Observation Satellite System, Journal of International GEOCARTO, Vol.3, No.2, pp.21-26, Jul.1988.
21. Kohei Arai, SPOT satellite planning and performance evaluation, Journal of the Photogrammetry

- Society of Japan, Vol.27, No.3, pp.25-30, Jul.1988.
22. Kohei Arai, Data Processing Technology Study Group, Study on the possibility of extracting the number of buildings using Landsat data - Experimental study using regression analysis targeting the area around Kumamoto Interchange -, Journal of the Japan Remote Sensing Society, Vol. 8, No. 3, pp.305-322, 1988
  23. Nobuyoshi Tsuno, Kohei Arai, The Earth Observing System (EOS) Plan, Journal of the Japanese Society of Remote Sensing, Vol. 8, No.4, pp.39-48, 1988,
  24. Kohei Arai, Optimal threshold value for Landsat TM image classification based on maximum likelihood method, Journal of the Japanese Society of Remote Sensing, Vol.8, No.3, pp.19-26, Sep.1988.
  25. Kohei Arai et al., Research on estimating the type and number of buildings using Landsat data, Journal of the Japan Remote Sensing Society, Vol.8, No.3, pp.61-78, Sep.1988.
  26. Kohei Arai, Geometric performance evaluation of SPOT/HRV, Journal of the Photogrammetry Society of Japan, Vol.27, No.6, pp.4-10, Sep.1988.
  27. Kohei Arai, Artificial Intelligence for Remote Sensing Image Analysis, Journal of the Japanese Society of Remote Sensing, Vol.8, No.3, pp.27-34, Sep.1988.
  28. Kohei Arai, Nobuyoshi Fujimoto, Automatic extraction of SAR GCP using DEM, Journal of the Japanese Society of Remote Sensing, Vol.8, No.4, pp.17-26, Dec.1988.
  29. Arai, K. : Japanese ERS-1 to ground station interface description, NASDA Technical report No. HE-89023, p. 1-85, 1989.
  30. K. Tachi, Kohei Arai and Y.Satoh, Advanced Microwave Scanning Radiometer -Requirements and Preliminary Design Study-, IEEE Trans. on Geoscience and Remote Sensing, Vol.27, No.2, pp.177-183, Jan.1989.
  31. Kohei Arai, N.Fujimoto, K.Tsuchiya, R.Tateishi, Terrain Height Estimation Based on Stereoscopic Pair of Images of SPOT/HRV, Advances in Space Research, Vol.9, No.1, pp.109-114, Sep.1989.
  32. Kiyoshi Tsuchiya, Kohei Arai and T.Igarashi, Present Status and Future Plans of Japanese Earth Observation Satellite Programme, Advances in Space Research, Vol.9, No.1, pp.217-224, Sep.1989.
  33. Kohei Arai, Hajime Koshiishi, Fukasawa, Saino, Hajime Fukushima, Ishimaru, Okuda, Kawamura, Overall ocean observation system using satellites, Oceanographic Society of Japan, Nautical Research Institute Notes on Sky and Sea, 1, 51-62, 1989.
  34. Kohei Arai, Nobuyoshi Tsuno, EOS Project (Part 2) High-Resolution Multifrequency Microwave Radiometer (HMMR), Journal of the Japanese Society of Remote Sensing, Vol. 9, No.3, pp.47-66, 1989.
  35. Kohei Arai: About the EO-ICWG (International Polar Orbit Earth Observation Platform Coordination Council), Journal of the Japan Remote Sensing Society, Vol.9, No.3, p.88-89, 1989.
  36. Tanaka, Arai: Summit Economic Declaration and Remote Sensing, Journal of the Japanese Society of Remote Sensing, Vol.9, No.3, p.77-81, 1989,
  37. Kohei Arai, Remote sensing of ice using the Earth Observation System (EOS), Journal of the Japan Remote Sensing Society, Vol. 10, No.4, pp.124-128, 1990.
  38. Kohei Arai: Data Information System in Earth Observation System (EOSDIS), Marine Science, Vol.22, No.10, p.1-6, 1990,
  39. Kohei Arai, Global Environmental Observation Satellite Program, Journal of the Japan Society of Applied Physics, Vol. 59, No. 4, pp. 487-494, 1990.
  40. Kiyoshi Tsuchiya, Kohei Arai, et al., Artificial Satellite Plan for Earth Monitoring, Meteorological Society of Japan, Meteorological Research Note No. 169, pp.39-42, 1990.
  41. Kohei Arai, Design and test results of an aircraft-mounted thermal infrared radiometer, Journal of the Infrared Technology Research Association, Vol.17, pp.12-19, Apr.1990.
  42. Kohei Arai, Shinichi Suzuki, Sea Surface Topography Observation (Topex/Poseidon) Satellite Plan, Photogrammetry and Remote Sensing 1990 Vol. 29 No. 1 33-41
  43. Kohei Arai, Global Environmental Observation Satellite Program Applied Physics 1990 Volume 59 No. 4 487-494 Publication date: 1990/04/10
  44. Kohei Arai, Remote sensing of ice using the Earth Observation System (EOS) Journal of the Japanese Society of Remote Sensing 1990 Volume 10 Issue 4 608-612 Publication date: 12/30/1990
  45. Kohei Arai, Preliminary Study on Information Lossy and Lossless Coding of Data Compression for Archiving ADEOS Data, IEEE Trans. on Geoscience and Remote Sensing, Vol.28, No.4, pp.732-735, Jul.1990.
  46. Kohei Arai, Results from Marine Observation Satellite-1(MOS-1) Operation, IEEE Trans. on Geoscience and Remote Sensing, Vol.28, No.4, pp.760-763, Jul.1990.
  47. Kohei Arai, Classification by Re-Estimating Statistical Parameters Based on Auto-Regressive Model, Canadian Journal of Remote Sensing, Vol.16, No.3, pp.42-47, Jul.1990.
  48. Minoru Urai, Yoshihiro Maeda, Kenichi Okamoto, Kohei Arai, Sotaro Tanaka, 3rd IGCP264 participation record/launch of MOS-1b/1st TRMM symposium held/2nd ADEOS symposium event

report/SPOT- 2 Launch, Journal of the Japan Remote Sensing Society 1990 Volume 10 Issue 1 163-166  
Publication date: 1990/03/30

49. Kohei Arai, Yasunori Terayama, Masao Matsumoto, Hiroki Fujiku, Kiyoshi Tsuchiya, Estimation of intra-pixel mixing ratio based on inverse problem solving, Saga University Faculty of Science and Engineering Research Bulletin, Vol.19, No.2, pp.9 -15, Jan.1991.
50. Masao Matsumoto, Hiroki Fujiku, Kiyoshi Tsuchiya, Kohei Arai, Category decomposition in maximum likelihood classification, Journal of the Photogrammetry Society of Japan, Vol.30, No.2, pp.25-34, May 1991.
51. Kohei Arai, Multi-Temporal Texture Analysis in TM Classification, Canadian Journal of Remote Sensing, Vol.17, No.3, pp.263-270, Jul.1991.
52. Kohei Arai, GCP Acquisition Using Simulated SAR and Evaluation of GCP Matching Accuracy with Texture Features, International Journal of Remote Sensing, Vol.12, No.11, pp.2389-2397, Oct.1991.
53. Kohei Arai, Extraction of intra-pixel information from satellite images, Journal of the Photogrammetry Society of Japan, Vol.30, No.4, pp.30-34, Jul.1991.
54. Kohei Arai, Kentake Teramoto, Estimation of turtle coffin position and shape using D-4 ground penetrating radar, 101-102. Collected papers presented at the annual academic conference of the Photogrammetry Society of Japan. 1991, 5-1991
55. Tetsuo Yasaka, Kohei Arai, Space Communication and Remote Sensing, Japan Society of Mechanical Engineers, 1991-6, Journal of the Japan Society of Mechanical Engineers Vol.94 no.871 p.500-505, 1991
56. Kohei Arai, Yasunori Terayama, Masao Matsumoto, Hiroki Fujiku, Kiyoshi Tsuchiya, Context classification based on the class mixture ratio between adjacent pixels, Journal of the Japanese Society of Remote Sensing, Vol.11, No.4, pp.21- 28, Dec.1991.
57. Kohei Arai, Future Plan for Remote Sensing in Japan Journal of the Japanese Society of Remote Sensing 1991 Volume 11 Issue 1 149-154 Publication date: 1991/03/3
58. Shun Handa, Sakota, Kohei Arai, Detection of burial mounds in the northern hills of Yoshinoga-sato using radar, Saga University Faculty of Liberal Arts Research Bulletin, Vol.24, pp.7-16, ISSN 02867567Jan.1992.
59. Kohei Arai, A Merged Dataset for Obtaining Cloud Free IR Data and a Cloud Cover Estimation within a Pixel for SST Retrieval, Asian-Pacific Remote Sensing Journal, Vol.4, No.2, pp.121-127, Jan.1992.
60. Kohei Arai, A Merged Dataset of MOS-1/VTIR, NOAA/AVHRR and ERS-1/ATSR, Advances in Space Research, Vol.12, No.7, pp.357-360, Jan.1992.
61. Kohei Arai, Maximum Likelihood TM Classification Taking into account Pixel-to-Pixel Correlation, Journal of International GEOCARTO, Vol.7, pp.33-39, Jun.1992.
62. Kohei Arai, A Supervised TM Classification with a Purification of Training Samples, International Journal of Remote Sensing, Vol.13, No.11, pp.2039-2049, Aug.1992.
63. Yukio Mukai, Toshiro Sugiura, Kohei Arai, DEM generation by planimetric correction of system-corrected SPOT/HRV, Journal of the Japan Remote Sensing Society, Vol.12, No.3, pp.45-54, Sep.1992.
64. Kohei Arai and Y.Terayama, Label Relaxation Using a Linear Mixture Model, International Journal of Remote Sensing, Vol.13, No.16, pp.3217-3227, Oct.1992.
65. Kohei Arai, TM Classification Using Local Spectral Variability, Journal of International GEOCARTO, Vol.7, No.4, pp.1-9, Oct.1992.
66. Kohei Arai, Yasunori Terayama, Yoko Ueda, Masao Moriyama, In-pixel cloud coverage estimation by category decomposition, Journal of the Photogrammetry Society of Japan, Vol.31, No.5, pp.4-10, Oct.1992.
67. Kohei Arai, A Classification Method with Spatial Spectral Variability, International Journal of Remote Sensing, Vol.13, No.12, pp.699-709, Oct.1992.
68. M.Moriyama and Kohei Arai, An Inversion for Emissivity-Temperature Separation with ASTER Data, Advances in Space Research, Vol.14, No.3, pp.67-70, Jul.1993.
69. Kohei Arai, TM Classification Using Local Spectral Variability, International Journal of Remote Sensing, Vol.14, No.4, pp.699-709, 1993.
70. Kohei Arai, High Spatial Resolution Visible Near Infrared Radiometer (AVNIR) Journal of the Japanese Society of Remote Sensing 1993 Volume 13 Issue 4 360-366 Publication date: 12/30/1993
71. Kohei Arai, A.Ono and Y.Yamaguchi, Possibility of Cross Calibration between EOS-AM1/MODIS and ASTER/TIR, Advances in Space Research, Vol.14, No.3, pp.79-82, Jul.1993 .
72. Kohei Arai, K. Teramoto and M. Matsumoto, Spatial Resolution Enhancement by Means of Inversion, Advances in Space Research, Vol.14, No.3, pp.71-74, Jul.1993.
73. Kohei Arai, Inversion Techniques for Proportion Estimation of Mixels in High Spatial Resolution of Satellite Image Analysis, Advances in Space Research, Vol.14, No.3, pp.75-78, Jul.1993.
74. Masao Moriyama, Yasunori Terayama, Kohei Arai, Image classification method based on in-pixel category occupancy, Journal of the Japanese Society of Remote Sensing, Vol.13, No.3, pp.23-32,

- Sep.1993.
75. Kohei Arai, Visualization of Earth Observation Satellite Data, Image Lab, Vol.4, No.12, pp.46-50, Dec.1993.
  76. Kenbu Teramoto, Kohei Arai, Toshio Imaya, Antenna pattern correction of microwave radiometer based on convex projection method, Journal of the Japan Remote Sensing Society, Vol.15, No.4, pp.38-49, Sep.1994.
  77. Moriyama,M. and Kohei Arai, Interactive estimation of the Earth surface temperature and emissivity, Advances in Space Research, Vol.16, No.10, pp.117-120, A1-019, July 1994.
  78. Moriyama,M., K.Mima and Kohei Arai, Comparison of the sea surface temperature estimation methods, Advances in Space Research, Vol.16, No.10, pp.121-124, A1-044, July 1994.
  79. Kohei Arai, Calibration /inter-calibration of multi-sensor for satellites, Advances in Space Research, Vol.16, No.10, pp.125-128, A31-002, July 1994.
  80. Kohei Arai, E. Ishiyama and Y. Terayama, A method for ice concentration estimation with microwave radiometer data by means of inversion techniques, Advances in Space Research, Vol.16, No.10, pp.129-132, A31-32, Jul.1994.
  81. P. Slater, K. Thome, A. Ono, F. Sakuma, Kohei Arai, F. Palluconi, H. Fujisada, Y. Yamaguchi and H. Kieffer, Radiometric Calibration of ASTER Data, Journal of Remote Sensing Society of Japan, Vol.15, No.2, pp.16-23, Jun.1994.
  82. A. Ono, F. Sakuma, Kohei Arai, Y. Yamaguchi, H. Fujisada, P. Slater, K. Thome, F. Palluconi and H. Kieffer, Pre-flight and In-flight Calibration Plan for ASTER, Journal of Atmospheric and Oceanic Technology, Vol.13, No.2, pp.321-335, Apr.1995.
  83. H. Wakabayashi and Kohei Arai, A method of Speckle Noise Reduction for SAR Data, International Journal of Remote Sensing, Vol.17, No.10, pp.1837-1849, May 1995.
  84. H. Wakabayashi and Kohei Arai, A New Method for SAR Speckle Noise Reduction(Chi Square Filter), Canadian Journal of Remote Sensing, Vol.22, No.2, pp.190-197, Jun.1995.
  85. Shinichi Sobue, Yohisa Shimoda, Kohei Arai, Fumiya Yoshida, Earth Observation Satellite Information System, Journal of the Japan Remote Sensing Society, Vol.15, No.5, pp.57-67, Dec.1995.
  86. Kohei Arai, Kentake Teramoto, Data correction processing algorithm for multifrequency microwave radiometer, Meteorological Research Notes, No.187, pp.169-176, Aug.1996.
  87. Kohei Arai, Calibration system of global environmental measurement system and development of information science Measurement and Control 1996 Vol. 35 No. 9 657-658 Publication date: 1996/09/10
  88. Kohei Arai, Inflight Test Site Cross Calibration Between Mission Instruments Onboard Same Platform, Advances in Space Research, Vol.19, No.9, pp.1317-1324, Jul.1997.
  89. Masao Naka, Isao Sato, Satoshi Tsuchida, Takeyuki Kawada, Akihiro Yamazaki, Makoto Imanaka, Kohei Arai, Yasunori Terayama, Yusuke Nakajima, Yasuhiro Nakajima Initial results of CAL/VAL research on ADEOS AVNIR sensor Journal of the Japanese Society of Remote Sensing 1997 Volume 17, Issue 5, 424-432 Publication date: 12/30/1997
  90. Kohei Arai, Application of Inversion Theory for Image Analysis and Classification, Advances in Space Research, Vol.21, 3, 429-432, 1998.
  91. Kohei Arai, Tsuyoshi Arata, Yasunori Terayama, Masao Moriyama, Probability density function adaptive image classification using simplified beta distribution, Journal of the Photogrammetry Society of Japan, Vol.37, No.1, 40-44, Mar.1998.
  92. Shinichi Sobue, Kohei Arai, Osamu Ochiai, Interoperability protocol for earth observation data retrieval, Information Processing Society of Japan, Vol.39, No.3, 222-228, Mar.1998.
  93. Kohei Arai, Naoto Ebuchi, Glen Jaross, Masao Moriyama, ADEOS mutual calibration/verification method and results, Journal of the Japan Remote Sensing Society, Vol.17, No.5, 19-25, Mar.1998.
  94. Satoshi Tsuchida, Isao Sato, Yasushi Yamaguchi, Kohei Arai, Tsutomu Takashima, On-orbit absolute calibration of visible and near-infrared radiometers using snowy fields in Hokkaido, Journal of the Japan Remote Sensing Society, Vol.18, No.1, 12- 31, May.1998.
  95. Kohei Arai, Yasuhiko Minematsu, Yasunori Terayama, Image restoration based on maximum entropy method with parameter estimation by annealing, Journal of the Photogrammetry Society of Japan, Vol. 37, No.2, 15-22, Jul.1998.
  96. Shinichi Sobue, Kohei Arai, Standardization of comprehensive operation protocol for earth observation satellite data catalog system, Journal of the Japan Remote Sensing Society, Vol.18, No.2, 74-79, Jul.1998.
  97. Kohei Arai, Hideki Watanabe, Yasunori Terayama, Improving ice density estimation accuracy based on inverse problem solving method, Journal of the Japan Remote Sensing Society, Vol.18, No.2, 65-73, Jul.1998.
  98. K.Thome, Kohei Arai et al., ASTER Preflight and In-flight Calibration and Validation of Level 2 Products, IEEE Trans. on Geoscience and Remote Sensing, Vol.36, No.4, 1161-1172, Sep.1998 .
  99. Kohei Arai, Hidemasa Kobayashi, Masao Moriyama, Sea surface temperature estimation method based



- on linearized inverse problem solving method, *Journal of the Japan Remote Sensing Society*, Vol.18, No.3, 43-50, Oct.1998.
100. Kohei Arai, Tomoaki Yamazaki, Image data compression with image restoration, *Journal of the Japan Photogrammetry Society*, Vol.37, No.4, 62-67, Oct.1998.
  101. Kohei Arai, Hirofumi Eto, Route control based on the maximum throughput norm in a virtual private network between earth observation satellite data suppliers, *Journal of the Photogrammetry Society of Japan*, Vol.38, No.1, 11-16, Jan.1999.
  102. K. Thome, S. Schiller, J. Conel, Kohei Arai and S. Tasuchida, Results of the 1996 EOS vicarious calibration joint campaign at Lunar Lake Playa, Nevada(USA), *Metrologia*, Vol.35, pp.631- 638, Jan.1999.
  103. Kohei Arai, Disaster monitoring using satellites, *Natural Disaster Research*, No.23, pp.29-34, Mar. 1999.
  104. Kohei Arai, Kaname Seto, Leeland Jameson, Extraction of water mass features from satellite images using polar coordinate representation Wavelet, *Journal of the Visualizing Information Society*, Vol.19, No.1, pp.99-102, July 1999.
  105. Kohei Arai, Error budget analysis of cross calibration method between ADEOS/AVNIR and OCTS, *Advances in Space Research*, Vol.23, No.8, pp.1385-1388, June 1999.
  106. Kohei Arai, Preliminary vicarious calibration for EOS-AM1/ASTER with field campaign, *Advances in Space Research*, Vol.23, No.8, pp.1449-1457, June 1999.
  107. Kohei Arai, Manabu Arakawa, Hirofumi Eto, Fuzzy search of earth observation image database based on fuzzy theory using physical quantities and spatial features, *Journal of the Photogrammetry Society of Japan*, Vol.38, No.4, pp.17-25, Aug.1999.
  108. Kohei Arai, Hirofumi Eto, Tomoko Nishiyama, Earth observation satellite image database system that allows ambiguous search requests, *Journal of the Photogrammetry Society of Japan*, Vol.38, No.4, pp.47-52, Aug.1999.
  109. Kohei Arai, Motoki Susaki, Optimal wavelength selection for sea surface temperature estimation using a thermal infrared radiometer, *Journal of the Japan Remote Sensing Society*, Vol.19, No.2, pp.71-76, June 1999.
  110. Kaname Seto, Kohei Arai, Prediction method for time series data including many missing data based on RLS method, *Journal of the Photogrammetry Society of Japan*, Vol.38, No.5, pp.20-27, Dec.1999.
  111. Tsutomu Takashima, Kazuhiko Masuda and Kohei Arai, Measurements of skylight polarization with surface reflectance over Railroad Valley, Nevada, *Papers in Meteorological Geophysics*, Vol.50, No.3, pp.113-124, 1999.
  112. Kohei Arai, Atmospheric correction and vicarious calibration of ADEOS/AVNIR and OCTS, *Advances in Space Research*, Vol.25, No.5, pp.1051-1054, 2000.
  113. Kohei Arai, Atmospheric correction and residual error in vicarious calibration of AVNIR and OCTS both onboard ADEOS, *Advances in Space Research*, Vol.25, No.5, pp.1055-1058, 2000.
  114. Kohei Arai, Yasunori Terayama, Experimental study of alternative calibration of AVNIR and OCTS (visible channel) on board the ADEOS satellite, *Journal of the Photogrammetry Society of Japan*, Vol.38, No.6, pp.34-40, 1999.
  115. Kohei Arai, Yasunori Terayama, Hiroyuki Miyamoto, Masao Moriyama, Sea surface temperature estimation using thermal infrared radiometer data using an iterative method, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.1, pp.15- 20,(2000).
  116. Kaname Seto, Kohei Arai, Limits of application of RLS method in Kalman filter parameter estimation, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.1, pp.48-54, (2000).
  117. Kaname Seto, Kohei Arai, Prediction method for time series data with high missingness rate, *Journal of the Japanese Society of Remote Sensing*, Vol.20, No.1, pp.43-54, (2000).
  118. Kohei Arai, K.J. Thome, Satoshi Tsuchida, Tsutomu Takashima, Takeyuki Kawada, Shoichi Machida, Hideyuki Tonooka, Field experiment at Tsukuba test site for ASTER alternative calibration (visible near-infrared and short-wavelength thermal infrared radiometer) , *Journal of the Japanese Society of Remote Sensing*, Vol.20, No.1, pp.55-62, (2000).
  119. Hideyuki Tonooka, F.Palluconi, Kohei Arai, Tsuneo Matsunaga, Shuichi Mutsukawa, Masatane Kato, Field experiment at Tsukuba test site for ASTER alternative calibration (thermal infrared radiometer), *Journal of the Japanese Society of Remote Sensing*, Vol. .20, No.1, pp.63-70, (2000).
  120. Kohei Arai, Optimal wavelength selection for sea surface temperature estimation using thermal infrared radiometer with refinement of multiple regression equation, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.2, pp.74-81, (2000) .
  121. Kohei Arai, K.J.Thome, Error analysis of alternative calibration of satellite-borne visible and near-infrared radiometer based on reflectance, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.2, pp.99-105, (2000) .
  122. Kohei Arai, Mitsuki Nakamura, Network route control method to avoid traffic concentration, *Information Processing Society of Japan Transactions*, Vol.41, No.7, pp.2062-2065, (2000).

123. Kohei Arai, Hajime Fukushima, Phenomenon thought to be based on scattering within the optical system on ADEOS/OCTS images and his estimation method for an aerosol model that takes this into account, *Journal of the Photogrammetry Society of Japan*, Vol. 39, No. 3, pp.6-13, (2000).
124. Hirofumi Eto, Takahiro Yamamoto, Kohei Arai, Indexing for image retrieval using spatial features, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.3, pp.14-20, (2000).
125. Kohei Arai, Atmospheric correction and vicarious calibration of ADEOS/AVNIR and OCTS, *Advances in Space Research*, Vol.25, No.5, pp.1051-1054, (2000).
126. Kohei Arai, Atmospheric correction and residual errors in cross calibration of AVNIR and OCTS both onboard ADEOS, *Advances in Space Research*, Vol.25, No.5, pp.1055-1058, (2000).
127. Kohei Arai, Kaname Seto, Extraction of change points in multi-temporal earth observation satellite images based on wavelet decomposition and tiling, *Journal of Visual Information Society*, Vol.20, Suppl.No.1, pp.285-288, (2000) .
128. N. Ebuchi, Kohei Arai, et.al., Evaluation of vector winds observed by NSCAT in the seas around Japan, *Journal of Ocean Society of Japan*, Vol.56, No.5, pp.495-505,(2000) .
129. Kohei Arai, Yasunori Terayama, Study on the effectiveness of the 8.3 $\mu$ m band in sea surface temperature estimation by ASTER/TIR and its optimal center wavelength, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.4, pp.19-24 ,(2000).
130. Kaname Seto, Kohei Arai, Effectiveness of prediction method for nonlinear/unsteady time series with dynamic feature extraction, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.4, pp.4-12, (2000) .
131. Kohei Arai, Yasunori Terayama, Selection of optimal bands (center wavelength and bandwidth) for sea surface temperature estimation using thermal infrared radiometer data, *Journal of the Photogrammetry Society of Japan*, Vol.39, No.5, pp.45 -51, (2000).
132. Kohei Arai, Masakatsu Nakajima, Hirokazu Ohmae, Toshiko Miyake, Round robin test of GLI (Global Imager) in the visible short wavelength infrared region using a continuous spectroradiometer, *Journal of the Japan Remote Sensing Society*, Vol. 20, No. 3, pp.61-70, (2000).
133. Mariko Oda, Masao Oda, Kohei Arai, /l-/r/ pronunciation learning CAI system on the WWW using lip video and audio, *Journal of the Educational System Information Society*, Vol.17, No.3, pp.162- 173, (2000).
134. Tsutomu Takashima, Kazuhiko Masuda, Kohei Arai, Satoshi Tsuchida, Observation of optical characteristics of atmospheric aerosols in the American desert using combined use of polarization spectroradiometer and sun photometer, *Journal of the Japan Remote Sensing Society*, Vol. 20, No. 3 , pp.47-60, (2000).
135. Kohei Arai, Sea Surface Temperature (SST) estimation accuracy assessment for ASTER/TIR -An effectiveness of 8.3 $\mu$ m water vapor absorption band for SST retrieval-, *Canadian Journal of Remote Sensing*, Vol.26, No.6, pp.576-579, (2000).
136. Kohei Arai, A method for selection of appropriate band combinations (Center wavelength and band width), *Canadian Journal of Remote Sensing*, Vol.27, No.2, pp.169-175, (2001).
137. Kohei Arai, Spatial resolution enhancement of remote sensing images based on the Maximum Entropy Method and Simulated Annealing, *Canadian Journal of Remote Sensing*, Vol.27, No.2, pp.183-188, (2000).
138. Kohei Arai, Effect of non-spherical bubble-filled salt particle aerosol on upper atmospheric radiance, *Journal of the Japan Remote Sensing Society*, Vol.20, No.5, pp.32-39, (2001).
139. Kohei Arai, Tatsuya Kawaguchi, Evaluation of marginal effects considering cloud layer structure using Monte Carlo method, *Journal of the Japan Remote Sensing Society*, Vol.21, No.2, pp.179-185, (2001).
140. Kohei Arai, Improving the accuracy of alternative calibration of satellite-borne visible and near-infrared radiometers based on reflectance through on-site instrument calibration, *Journal of the Photogrammetry Society of Japan*, Vol.40, No.3, pp.25-33, ( 2001).
141. Kohei Arai, Kaname Seto, Taro Nakao, Geometric feature extraction of images using wavelet descriptors, *Journal of the Visualizing Information Society*, Vol.21, Suppl.No.1, pp.351-354, 2001.
142. Kohei Arai, Kaname Seto, Relationship between VISR/SST and TMI/SST, *Journal of Visualized Information Society*, Vol.21, Suppl.No.1, pp.355-359, 2001.
143. Kohei Arai, Evaluation of the influence of aerosols on the sea surface temperature estimation method using thermal infrared radiometer data using an iterative method, *Journal of the Japan Remote Sensing Society*, Vol. 21, No. 4, pp. 179-185, ( 2001).
144. Kohei Arai, Kurtis Thome, Satoshi Tsuchida, Katsutoshi Maekawa, Hideyuki Tonooka, Initial results of alternative calibration of ASTER/VNIR and SWIR in Japan *Journal of the Japanese Society of Remote Sensing*, Vol.21, No.5, pp.448-456, 2001.
145. Hideyuki Tonooka, F.Palluconi, Tsuneo Matsunaga, Taneomi Kato, Kohei Arai, Initial results of alternative calibration of ASTER/TIR in Japan, *Journal of the Japanese Society of Remote Sensing*, Vol.21, No.5, pp.467-474, 2001.
146. Kohei Arai, Tatsuya Kawaguchi, Phase function of cloud particles and evaluation of marginal effects

- considering cloud layer structure using Monte Carlo method assuming multilayer parallel plate atmosphere, *Journal of the Photogrammetry Society of Japan*, Vol. 40, No. 6, 2001.
147. Kohei Arai, Kaname Seto, and Taro Nakao, Comparison of degree of restoration of geometric feature description of images by wavelet and Fourier descriptors under the same band limit, *Journal of the Photogrammetry Society of Japan*, Vol.40, No.5, 63 -67, 2001.
  148. Akira Yoshizawa and Kohei Arai, Influence due to geomorphology on context genetic Algorithm Clustering, *Transaction of the Japanese Geomorphological Union*, Vol.22, No.4, 23-28, 2001.
  149. Kohei Arai, Yoko Takamatsu, Phase function of non-spherical model of foamy sea salt particle aerosol with relatively large particle size, *Journal of the Japan Remote Sensing Society*, Vol.22, No.1, pp.40-49, 2002 .
  150. Kohei Arai, Phase function of relatively large aerosol particles containing bubbles by means of a Ray Tracing, *Advances in Space Research*, Vol.29, No.19, 1813-1818, 2002.
  151. Kohei Arai, Adjacency effect of layered clouds estimated with Monte-Carlo simulation, *Advances in Space Research*, Vol.29, No.19, 1807-1812, 2002.
  152. Kohei Arai, Kaname Seto, Data hiding based on wavelet multiresolution analysis, *Journal of the Visualizing Information Society*, Vol.22, Suppl.No.1, 229-232, 2002.
  153. Kohei Arai, Kaname Seto, Data fusion of earth observation satellite data based on wavelet multiresolution analysis, *Journal of the Visualizing Information Society*, Vol.22, Suppl.No.1, 233-236, 2002.
  154. Kohei Arai, Yoko Takamatsu, Phase function of non-spherical model of foamy sea salt particle aerosol with relatively large particle size, *Journal of the Japan Remote Sensing Society*, Vol.22, No.1, pp.40-49,2003 .
  155. Satoshi Yoshizawa, Kohei Arai, His clustering using genetic algorithm combined with spectral and context information, *Journal of the Institute of Image Electronics Engineers*, Vol. 31, No. 2, 202-209, 2003.
  156. Kohei Arai, Kaname Seto, Taro Nakao, Geometric feature description of images based on Gabor transformation, *Journal of the Photogrammetry Society of Japan*, Vol.41, No.1, 85-90, 2003.
  157. Kohei Arai, Satoshi Yoshizawa, Koichi Takeno, Application of Messy genetic algorithm to satellite image clustering, *Journal of the Photogrammetry Society of Japan*, Vol.41, No.5, 34-41, 2003.
  158. Kohei Arai, Soichiro Takamoto, Image classification based on chaotic neural networks, *Journal of the Institute of Image Electronics Engineers*, Vol.31, No.5, 823-830, 2003.
  159. Mariko Oda, Masao Oda, Kohei Arai, Effects of /l/~/r/ pronunciation practice system through imitation, *Journal of the Japan Society for Educational Technology*, vol.26, No.2, 65-75, 2003.
  160. Shigeki Kuzuoka, Kohei Arai, Tree parameter model and parameter estimation using Ray Tracing, *Journal of the Japanese Society of Remote Sensing*, Vol.22, No.4, pp.394-404, 2003.
  161. Kohei Arai, Xingming Liang, Simultaneous estimation of complex refractive index and particle size distribution of aerosol using direct solar, scattered and marginal light by simulated annealing, *Journal of the Japan Remote Sensing Society*, Vol.23, No.1, pp. 11-20, 2003.
  162. Kohei Arai, Kaname Seto, El Niño/La Niña discrimination based on Takens' reconstruction theorem, *Journal of the Japan Remote Sensing Society*, Vol. 23, No. 2, pp. 157-163, 2003.
  163. Kohei Arai, Kaname Seto, Compression method for ENSO time series data based on multi-resolution analysis, *Journal of the Visualizing Information Society*, Vol. 23, Suppl. No. 1, pp. 65-68, 2003.
  164. Kohei Arai, Global environment observation satellite data analysis using wavelets, *Journal of the Visualizing Information Society*, Vol.23, Suppl.No.1, pp.91-94,2003.
  165. Hiroshi Okumura, Tsuneaki Narita, Yu Maeda, Koji Kajiwara, Yu Zhang, Toshinori Yoshikawa, Kohei Arai, Texture quantification of remote sensing images using rotational unbiased moments in the spatial frequency domain, *Journal of the Japanese Society of Remote Sensing*, Vol. 23, No.2, pp.137-146, 2003.
  166. Kohei Arai, Kaname Seto, Data hiding based on multi-resolution analysis using information bias due to eigenvalue expansion, *Journal of the Visualization Information Society*, Vol. 23, No. 8, pp. 72-79, 2003.
  167. Kohei Arai, Yoko Takamatsu, Effect of spume particle aerosol on upper atmospheric brightness, *Journal of the Japan Remote Sensing Society*, Vol.23, No.4, pp.355-363, 2003.
  168. Kohei Arai, Kaname Seto, Dynamic characteristic identification method for moving objects using wavelet analysis, *Journal of Visualization Information Society*, 24, (Suppl.1), 227-230 (2004)
  169. Kohei Arai, Learning processes of image clustering method with density maps derived from Self-Organizing Mapping(SOM), *Photography Surveying and Remote Sensing (Journal of the Japanese Society of Photogrammetry)*, 43, 5, 62-67 (2004)
  170. Kohei Arai, Non-linear merge and split method for image clustering, *Photogrammetry and Remote Sensing (Journal of the Japan Photogrammetry Society)*, 43, 5, 68-73 (2004)
  171. Ali Ridho Barakbah and Kohei Arai, Revised pattern of moving variance for acceleration of automatic clustering, *Electric and Electronics Polytechnics in Surabaya EEPIS Journal*, 9, 7, 15-21 (2004)
  172. Kohei Arai, Kaname Seto, Information hiding method based on coordinate transformation, visualization

- Journal of the Information Society of Japan, 25, Suppl. No. 1, 55-58, (2005)
173. Kohei Arai, Keyword extraction for search from paper documents and drawings based on the determination of knowledge importance using hierarchical analysis method, Journal of the Institute of Image Electronics Engineers, 34, 5, 636-644, (2005)
  174. Xingming Liang, Kohei Arai, Simultaneous estimation method of complex refractive index and particle size distribution of aerosol based on ground observation of direct solar light, scattered light, marginal light, and polarized light, Journal of the Japan Remote Sensing Society, 25, 4, 357 -366, (2005)
  175. Kohei Arai, Xingming Liang, Estimation method of upper atmospheric radiance considering polarization of upward and downward radiance Photogrammetry and Remote Sensing 2005 Vol. 44 No. 3 4-12 Publication date: 2005/07/01
  176. Kohei Arai and H. Tonooka, Radiometric performance evaluation of ASTER/VNIR, SWIR and TIR, IEEE Trans. On GeoScience and Remote Sensing, 43, 12, 2725-2732, 2005.
  177. Kohei Arai, X.Liang, Q.Liu, Method for estimation of rain rate with Rayleigh and Mie scattering assumptions on the Z-R relationship for different rainfall types, Advances in Space Research, 36, 5, 813-817, 2005.
  178. Kohei Arai and J.Sakakibara, Estimation of SST, wind speed and water vapor with microwave radiometer data based on simulated annealing, Advances in Space Research, 37, 12, 2202-2207, 2006.
  179. Kohei Arai and M.Saka, Bright band height assignment with precipitation radar data based on Multi-Resolution Analysis: MRA of wavelet analysis, Advances in Space Research, 37, 12, 2197-2201, 2006.
  180. M.Konda, A.Shibata, N.Ebuchi and Kohei Arai, Correction of the effect of relative wind direction on wind speed derived by AMSR, Journal of Oceanography, 64, 395-404, 2006.
  181. Kohei Arai and H.Chen, Unmixing method for hyperspectral data based on subspace method with learning process, Saga University Bulletin, 35, 1, 41-46, 2006.
  182. Y.Ding, and Kohei Arai, Monte-Carlo simulation for radiative transfer modeling of forested areas and the atmosphere, Saga University Bulletin, 35, 1, 35-40, 2006.
  183. Kohei Arai and J.Wang, Polarimetric SAR image classification with maximum curvature of the trajectory in eigen space domain on the polarization signature, Advances in Space Research, 39, 1, 149-154, 2007.
  184. Kohei Arai, Y.Iisaka and X.Linag, Aerosol parameter estimation with changing observation angle of ground based polarization radiometer, Advances in Space Research, 39, 1, 28-31, 2007.
  185. Kohei Arai, Ghosting in ADEOS/OCTS images and its correction based on convolution filtering with Gaussian function, Advances in Space Research, 39, 1, 167-170, 2007,
  186. Kohei Arai, Vicarious calibration for solar reflection channels of radiometers onboard satellites with deserted area of data, Advances in Space Research, 39, 1, 13-19, 2007.
  187. Kohei Arai, X.Liang, Characterization of aerosols in Saga city areas, Japan with direct and diffuse solar irradiance and aureole observations, Advances in Space Research, 39, 1, 23-27, 2007.
  188. Kohei Arai, Kaname Seto, Tomoko Nishikawa, Extraction method of dynamic characteristics of rotational acceleration moving body using wavelets, Journal of Visualization Information Society, 26, Suppl.1, 145-148, 2006
  189. Kohei Arai, Image classification and visualization information using high-frequency components of polarization signatures using polarimetric SAR based on wavelet multiresolution analysis, Journal of the Japanese Society of Visualization, 26, Suppl.1, 149-152, 2006
  190. Kohei Arai, Masanori Saka, Detection of buried objects using underground radar based on wavelet analysis, Journal of Visual Information Society, 26, Suppl.1, 137-140, 2006
  191. Kohei Arai, Yoshikazu Saito, Extraction of spatio-temporal carbon dioxide concentration changes based on wavelet analysis, Journal of Visual Information Society, 26, Suppl.1, 133-136, 2006
  192. Kohei Arai, Takeshi Yoshida, Speaker separation based on blind separation with wavelet transform, Journal of Visual Information Society, 26, Suppl.1, 171-174, 2006
  193. Kohei Arai, Huahui Chen, Category decomposition of hyperspectral data based on learning subspace method, Journal of the Photogrammetry Society of Japan, 45, 5, 23-31, 2006.
  194. K. Thome, Kohei Arai, S. Tsuchida and S. Biggar, Vicarious calibration of ASTER via the reflectance-based approach, IEEE Trans. on Geoscience and Remote Sensing, 46(10), 3285-3295. [4637978] . <https://doi.org/10.1109/TGRS.2008.928730>, 2006.
  195. Kohei Arai, Masayagi Cho, Reflection model of forest vegetation considering the influence of multiple reflections between trees, Journal of the Photogrammetry Society of Japan, 45, 6, 56-66.2006.
  196. Kohei Arai Image classification using high-frequency components of polarization signature using polarimetric SAR based on wavelet multiresolution analysis Journal of the Visualizing Information Society 2006 Volume 26 Supplement 1 Issue 149-152 Publication date: 2006/07/01, 2006.
  197. Masayagi Ding, Kohei Arai, Estimation of tree species, tree shape, and intertree distance parameters using a radiative transfer model based on the Monte Carlo method using a simulated forest ground surface model, Journal of the Japan Remote Sensing Society, 27, 2, 141-152 , 2007

198. Arai, Kohei, Saeki, Shoji Polarimetric SAR image classification with dimension selection based on correlation between feature dimensions and overlap between distributions / -- 2007-12, Bulletin of the Faculty of Science and Technology, Saga University / Faculty of Science and Technology, Saga University Vol.36 no.2 p.25-31, 2007.
199. Kohei Arai, Image part search and display using a small-scale display device for large-scale images that is compatible with data compression using block coding: Satellite image search and display using a mobile phone / -- 2007-12, Bulletin of the Faculty of Science and Technology, Saga University / Saga University Faculty of Science and Engineering Vol.36 no.2 p.7-13 Bulletin Paper, 2007.
200. Kohei Arai Map information system and pedestrian navigation / -- 2007-12, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol.36 no.2 p.15-24, 2007.
201. Kohei Arai, Junji Minarata -Reconstructed display of three-dimensional objects using fiber cameras / - 2007-12, Bulletin of the Faculty of Science and Technology, Saga University / Faculty of Science and Technology, Saga University Vol.36 no.2 p.1-6 Bulletin paper, 2007.
202. Kohei Arai, Ali Ridho Barakbah --Hierarchical K-means method: Algorithm for initial cluster setting for clustering / 2007-6, Bulletin of the Faculty of Science and Technology, Saga University / Faculty of Science and Technology, Saga University Vol.36 no.1 p.25 -31, 2007.
203. Kohei Arai, Mayumi Iguchi An e-learning system that allows annotations such as mathematical expressions and marks in Web-based content bulletin boards and chats / -- 2007-6, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol.36 no.1 p.1-8 Bulletin paper, 2007.
204. Kohei Arai, Noriyuki Boku Estimation of separation/integration parameters for ISODATA clustering based on genetic algorithm / -- 2007-6, Saga University Faculty of Science and Technology Bulletin / Saga University Faculty of Science and Technology Vol.36 no.1 p.17-23 Bulletin paper, 2007.
205. Kohei Arai, Ali Ridho Barakbah Newly defined cluster construction method with optimality determination with moving average / -- 2007-6, Saga University Faculty of Science and Technology Bulletin / Saga University Faculty of Science and Technology Vol.36 no.1 p. 9-15 Bulletin paper, 2007.
206. Kohei Arai, Hiroshi Yoshida - An e-learning system that determines the presence or absence of students through response voice analysis / - 2007-6, Bulletin of the Faculty of Science and Technology, Saga University / Faculty of Science and Technology, Saga University Vol.36 no.1 p. 39-44 Bulletin Papers, 2007.
207. Kohei Arai, Ali Ridho Barakbah - Automatic cluster determination as a global optimal solution in distributed shape clustering / - 2007-6, Bulletin of the Faculty of Science and Technology, Saga University / Faculty of Science and Technology, Saga University Vol.36 no.1 p.33-38
208. Kohei Arai, Hiromi Kamitaki, Computer input based on line-of-sight estimation based on iris center detection that allows user's facial movements, Institute of Electrical Engineers of Japan, Journal C, 127, 7, 1107- 1114, 2007
209. Kohei Arai, Tomoko Nishikawa, Detection method for vehicles with accident risk based on wavelet analysis, Journal of Visual Information Society, 27, Suppl.1, 217-220, 2007
210. Kohei Arai, Kaname Seto, Improving confidentiality of digital watermarks based on multi-resolution analysis with oblique coordinate transformation and principal component transformation, Journal of the Institute of Image Electronics Engineers of Japan, 36, 5, 665-673, 2007
211. Kohei Arai, Kenta Higashi, Improving the accuracy of ocean wind speed estimation using a microwave radiometer considering the dependence of observed brightness temperature on wind direction, Journal of the Japan Remote Sensing Society, 27, 5, 465-473, 2007.
212. Kohei Arai, Sea Surface Temperature estimation method for ocean areas and seasons using Geographic Information System as a neural network, Sediment and Ecohydraulics, Proc.in Marine Science, 9, Elsevier ISBN978-0-444 53184-1, 2007.
213. Kohei Arai, Norinori To, ISODATA clustering with parameter estimation based on genetic algorithm considering concavity of probability density function, Journal of the Photogrammetry Society of Japan, 47, 1, 17-25, 2008.
214. Arai, Kohei, Yamaguchi, Osamu, Tsurumaru, Masanori Optical properties of dried seaweed and detection of transparent foreign substances / -- 2008-12, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol.37 no.2 p.1 -6, 2008.
215. Masahiro Inoue, Osamu Fukuda, Kusunoki To, Naohiro Ueno, Hiroshi Okumura, Kohei Arai Automatic discrimination of subcutaneous fat/muscle/bone boundaries using a portable ultrasound image measurement device, Proceedings of the Society of Instrument and Control Engineers, 44, 8 , 678-684, 2008
216. Kohei Arai, Makoto Yamaura, Improvement of blink detection accuracy in key determination of gaze input system using morphological filter, Journal of the Institute of Image Electronics Engineers, 37, 5, 601-609, 2008
217. Kohei Arai, Estimation of multifidus muscle area from buttock CT images using wavelet analysis,

- Journal of Visualization Information Society 28-1 1, 147-150, 2008.
218. Kohei Arai, Tomoko Nishikawa, Detection of rolling vehicles using wavelet analysis, Journal of Visual Information Society, 28-1 1, 151-154, 2008.
  219. Kohei Arai, Takeo Yajima, Conversation support system using gaze input, IEEJ Transactions C, 128-C,11,1679-1686, 2008
  220. Kohei Arai, Alternative calibration of ASTER/VNIR based on long-term observation results of aerosol optical properties in Saga, Journal of the Japanese Society of Remote Sensing, 28, 3, 246-255, 2008.
  221. Kohei Arai, Xingming Liang, Improving the calibration accuracy of direct solar and ambient light measuring instruments based on the modified Langley method, Journal of the Photogrammetry Society of Japan, 47, 4, 21-28, 2008.
  222. Kohei Arai, Chapter 4: A sea surface temperature estimation method for ocean areas and seasons using a GIS as Neural Network, Proceeding of the Marine Science, 9, 43-51, 2008.
  223. Kohei Arai, Non-linear mixture model of mixed pixels in remote sensing satellite images based on Monte Carlo simulation, Advances in Space Research, 41, 11, 1715-1723, 2008.
  224. Yaliu Ding and Kohei Arai Forest parameter estimation by means of Monte Carlo simulations with experimental considerations -Estimation of multiple reflections among trees depending on forest parameters- Online publication from Advances in Space Research, Elsevier 2008.
  225. Kohei Arai and XingMing Liang, Sensitivity analysis for air temperature profile estimation method around tropopause using simulated AQUA/AIRS data, online publication from Advances in Space Research, Elsevier 2008.
  226. Kurtis Thome, Kohei Arai, Satoshi Tsuchida and Stuart Biggar, Vicarious calibration of ASTER via the reflectance based approach, IEEE transaction of GeoScience and Remote Sensing, 46, 10, 3285-3295, 2008.
  227. Kohei Arai, Osamu Yamaguchi, Masanori Tsurumaru, Optical properties of dried seaweed and detection of transparent foreign substances, Bulletin of the Faculty of Science and Technology, Saga University, 37, 2, 1-6, 2008.
  228. Yoichiro Kitajima, Yuichiro Eguchi, Eriko Ishibashi, Noriko Oza, Toshiya Nakamura, Toshihiko Mizuta, Iwata Ozaki, Kazuma Fujimoto, Hiroko Horie, Michiko Gogawa, Naofumi Ono, Naofumi Eguchi, Shigehisa Aoki, Shuji Toda, Arai. Kohei, Do multifidus muscle CT values in buttock CT reflect the effects of diet/exercise therapy in non-alcoholic fatty liver disease? , Pharmacology and Therapy, 30, Suppl.2, S235-237, 2008.
  229. Yaliu Ding, Kohei Arai, Forest parameter estimation, by means of Monte-Carlo simulations with experimental consideration of estimation of multiple reflections among trees depending on forest parameters, Advances in Space Research, 43, 3, 438-447, 2009.
  230. Kohei Arai and XingMing Liang, sensitivity analysis for air temperature profile estimation method around the tropopause using simulated AQUA/AIRS data, Advances in Space Research, 43, 3, 845-851, 2009.
  231. Kohei Arai, Earth observation satellite data analysis method based on wavelet analysis, Journal of the Institute of Systems, Control and Information Engineers, 53,1,28-34,2009.
  232. Kohei Arai, Detection and inspection technology of rolling vehicles based on wavelet analysis, 2009
  233. Djoko Purwanto, Ronny Mardiyanto, Kohei Arai, Electric wheel chair control with gaze detection and eye blinking, Proceedings of the International Symposium on Artificial Life and Robotics, GS9-4, 2009.
  234. Osamu Fukuda, Masayoshi Tsubai, Masahiro Inoue, Nan Bu, Naohiro Ueno, Hiroshi Okumura and Kohei Arai, Development of a ubiquitous echographic device for evaluating human body composition, Proceedings of the International Journal of Digital Content Technology and Its Applications, 3, 2, 10-20, 2009.
  235. Hiroshi Okumura, Kohei Arai, Visibility evaluation of projection slides based on spectral characteristics of human photoreceptors, Journal of the Institute of Image Electronics Engineers of Japan, 38, 2, 164-171, 2009 (22-27, 2009)
  236. Kohei Arai, Tomoko Nishikawa, Detection of moving objects in earth observation satellite images using wavelets, Journal of Visual Information Society, 29-1, 1, 163-166, 2009.
  237. Kohei Arai, Kaname Seto, Data hiding based on multi-resolution analysis that improves the visibility of secret images considering the scanning method, Journal of Visual Information Society, 29-1, 1, 167-170, 2009.
  238. Kohei Arai, Tomoko Nishikawa, Extraction of moving objects in earth observation satellite images and optimal support length using multi-resolution analysis based on Daubechies basis functions, Journal of the Photogrammetry Society of Japan, 48, 3, 171-179, 2009.
  239. Djoko Purwanto, Ronny Mardiyanto and Kohei Arai, Electric wheel chair control with gaze detection and eye blinking, Artificial Life and Robotics, AROB Journal, 14, 694,397-400, 2009.
  240. Kohei Arai and Yui Nishimura, Polarization model for discrimination of broad and needle shaped leaves and estimation of LAI using polarization measurements, Advances in Space Research, 44, 510-516, 2009.

241. Kohei Arai, Unmixing method for hyperspectral data based on sub-space method with learning process, *Advances in Space Research*, 44, 517-523, 2009.
242. Hiroshi Okumura, Makoto Yamaura and Kohei Arai, A hybrid supervised classification method for multi-dimensional images using color and textural features, *Journal of the Institute of Image Electronics Engineers*, 38, 6, 872-882, 2009.
243. Kohei Arai, Identification of movement characteristics in video images based on wavelet decomposition and reconstruction, *Visualization of Information Journal*, 29-1, 2, 1075-1078, 2009.
244. Kohei Arai, Ronny Mardiyanto, Gaze input with blink detection using Gabor filter, *Journal of Visual Information Society*, 29-1, 2, 1087-1090, 2009
245. Kohei Arai, Hiroshi Yamada, Method for determining the optimal wavelet basis function support length for change extraction, *Journal of the Visualizing Information Society*, 29-1 2, 1083-1086, 2009
246. Yoichiro Kitajima, Yuichiro Eguchi, Eriko Ishibashi, Shunya Nakashito, Shigehisa Aoki, Shuji Toda, Toshihiko Mizuta, Iwata Ozaki, Naofumi Ono, Takahisa Eguchi, Kohei Arai, Ryuichi Iwajiri and Kazuma Fujimoto, Aged-related fat deposition in multifidus muscle could be a marker for nonalcoholic fatty liver disease, *Journal of Gastroenterology*, Springer 218-224, 2009.
247. Kohei Arai, Kiyotaka Fujisaki, Hiroaki Ikemi, Masato Masuya, Terumasa Miyahara, Disaster backup communication via WINDS satellite, *Bulletin of the Faculty of Science and Technology*, 38, 2, 7-12, 2009.
248. Kohei Arai, Kiyotaka Fujisaki, Hiroaki Ikemi, Ibrahim Djawaluddin, Masato Masuya, Terumasa Miyahara, Transmission experiment of constrained TCP transmission using software accelerator and GIS client-server model via WINDS satellite, *Bulletin of Faculty of Science and Engineering*, 38, 2, 13-18, 2009.
249. Arai, Kohei, Lili, Long -- BRDF model for new tealeaves and tealeaves monitoring with network cameras / Saga University Faculty of Science and Engineering, 2009-6, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol.38 no.1 p .23-28, 2009
250. Arai, Kohei, Yamaguchi, Kenji Air-temperature, water vapor and atmospheric pressure estimations with spectral radiometer in near infrared wavelength regions / Saga University Faculty of Science and Engineering, 2009-6, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol. 38 no.1 p.17-22 Bulletin paper
251. Arai, Kohei, Nishimura, Yui -- Aerosol refractive index estimation with ground based polarization measurement data / Saga University Faculty of Science and Engineering, 2009-6, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol.38 no.1 p. 5-10 Bulletin paper
252. Arai, Kohei, Nakamizo, Naohisa -- Water vapor and air-temperature profile estimation with AIRS data based on Levenberg-Marquardt / Saga University Faculty of Science and Engineering, 2009-6, Saga University Faculty of Science and Engineering Bulletin / Saga University Faculty of Science and Engineering Vol. 38 no.1 p.11-16
253. Kohei Arai Global environment observation satellite data analysis method based on wavelet analysis (<Special feature> Development of wavelet transform) *System/Control/Information* 2009 Vol. 53 No. 1 28-33 Publication date: 2009/01/15
254. Kohei Arai, Tri Harsono, Achmad Basuki, Micro traffic simulation with unpredictable disturbance based on Monte Carlo simulation : effectiveness of the proposed agent cars of Sidoarjo hot mudflow disaster, *Journal of Emitter*, 1, 1, 1-10, 2010
255. Achmad Basuki, Tri Harsono and Kohei Arai, Probabilistic cellular automata based approach for prediction of hot mudflow disaster area and volume, *Journal of EMITTER1*, 1, 11-20, 2010.
256. Kohei Arai, Xingming Liang, Comparison of his Z-R relationship and rainfall intensity in TRMM/PR data based on Mie scattering and Rayleigh scattering assumptions, *Journal of the Photogrammetry Society of Japan*, 49,2,67-74,2010
257. Kohei Arai, Kenta Higashi, His estimation of precipitation using AMSR (microwave radiometer) data considering the geometrical relationship between the observation object and the radiometer, *Journal of the Photogrammetry Society of Japan*, 49, 1, 32-40. ,2010
258. Kohei Arai, Kenyoshi To, Reinforcement learning/competitive learning online class considering tracking algorithms, part search in large-scale images using starling, *Journal of the Institute of Image Electronics Engineers*, 39, 3, 301-309, 2010
259. Masahiro Inoue, Osamu Fukuda, Masayoshi Tsubai, Satoshi Muraki, Hiroshi Okumura, Kohei Arai, Automatic discrimination of muscle and fat using tissue elastic properties, *Proceedings of the Society of Instrument and Control Engineers*, 46,7,401-408,2010
260. Kohei Arai, Achmad Basuki, Volcanic lahar eruption disaster that occurred in the Cidajo region of Indonesia and a diffusion prediction model based on cellular automata, *Journal of the Photogrammetry Society of Japan*, 49,3,149-158,2010
261. Kohei Arai and Tolle Herman, Automatic e-comic content adaptation, *International Journal of*



- Ubiquitous Computing, 1,1,1-11,2010
262. Kohei Arai, Extraction of temporal changes in his four-dimensional assimilated data using wavelets, *Journal of Visualization Information Society*, 30, Suppl. 2, 281-282, 2010
  263. Kohei Arai, Texture analysis using wavelets and its application to satellite image analysis, *visualization Journal of the Institute of Information Engineers*, 30, Suppl.2, 283-284, 2010
  264. Kohei Arai, Yuji Yamada, His three-dimensional object movement characteristic analysis method using wavelets, *Journal of the Visualization Information Society*, 30, Suppl. 2, 287-288, 2010
  265. Achmad Basuki and Kohei Arai, Two dimensional CA approach for disaster spreading, *Innovation Online (INOVASI)*, 18,12,19-26, 2010
  266. Tri Harsono and Kohei Arai, Cellular automata for micro traffic modeling and simulation, *Innovation Online (INOVASI)*, 18,12,27-34, 2010
  267. Kohei Arai, Sensitivity analysis and error analysis in estimating aerosol complex refractive index and particle size distribution by polarization observation for alternative calibration of satellite-borne visible near-infrared and short-wavelength infrared radiometers, *Journal of the Photogrammetry Society of Japan*, 49,6,368-380,2010
  268. Kohei Arai and Ronny Mardiyanto, Real time blinking detection based on Gabor filter, *International Journal of Human Computer Interaction*, 1,3,33-45,2010
  269. Kohei Arai and Makoto Yamaura, Computer input with human eyes only using two Purkinje images which works in a real time basis without calibration, *International Journal of Human Computer Interaction*, 1,3, 71-82,2010
  270. Kohei Arai and Ronny Mardiyanto, Camera mouse and keyboard for handicap person with trouble shooting capability, recovery and complete mouse events, *International Journal of Human Computer Interaction*, 1,3,46-56,2010
  271. Chrysoulakis, Abrams, Feidas and Kohei Arai, Comparison of Atmospheric correction methods using ASTER data for the area of Crete, Greece, *International Journal of Remote Sensing*, 31,24,6347-6385,2010.
  272. Yoichiro Kitajima, Yuichiro Eguchi, Hiroshi Isoda, Eriko Ishibashi, Noriko Ohza, Toshihiko Mizuta, Iwata Ozaki, Kazuma Fujimoto, Hiroko Horie, Michiko Hirakawa, Naofumi Ono, Naofumi Eguchi, Shigehisa Aoki, Aki Matsunobe, Shuji Toda. , Kohei Arai, Evaluation of multifidus muscle fattening as an indicator of diet and exercise therapy for NAFLD, *Pharmacology and Treatment*, 37, Suppl.2, S147-149, 2010.
  273. Kohei Arai, Tri Harsono, Achmad Basuki, Micro traffic simulation with unpredictable disturbance based on Monte Carlo simulation and effectiveness of the proposed agent cars of Sidoarjo hot mudflow disaster, *Journal of EMITTER*, 1, 1, 10-19, 2010.
  274. Achmad Basuki, Tri Harsono, Kohei Arai, Probabilistic cellular automata based approach for prediction of hot mudflow disaster area and volume, *Journal of EMITTER*, 1, 1, 1-9, 2010.
  275. Kohei Arai, Ronny Mardiyanto, A prototype of electric wheelchair control by eye only for paralyzed user, *Journal of Robotics and Mechatronics*, 23, 1, 66-75, 2010.
  276. Arai, Kohei -- Micro-Kyushu Earth Observation Satellite Mission Analysis: Disaster monitoring during disasters and agriculture, forestry and fishery resource management during normal times / Saga University Graduate School of Engineering, 2010-12, Saga University Science and Engineering Bulletin / Saga University Engineering Related Graduate Schools Vol.39 no.2 p.1-8
  277. Kohei Arai, Lipur Sugiyanta, Approach of improved topology development protocol in ad-hoc network minimizing the number of hops and maintaining connectivity of mobile terminals which moves from one to the others, *Journal of Communication and Networks*, 2, 6, 190-204, 2011.
  278. Kohei Arai, Achmad Basuki, A New Approach of Probabilistic Cellular Automata Using Vector Quantization Learning for Predicting Hot Mudflow Spreading Area, *International Journal of Computer Science and Information Security*, 9, 2, 32-36, 2011.
  279. Kohei Arai, Lipur Sugiyanta, Routing Approach with Immediate Awareness of Adaptive Path While Minimizing the Number of Hops and Maintaining Connectivity of Mobile Terminals Which Move from One to the Others, *International Journal of Computer Science and Information security*, 9, 2, 94-101, 2011.
  280. Kohei Arai and Lipur Sugiyanta, Energy Behavior in Ad Hoc Network Minimizing the Number of Hops and Maintaining Connectivity of Mobile Terminals Which Move from One to the Others, *International Journal of Computer Networks (IJCN)*, 2, 6, 190-204, 2011.
  281. Kohei Arai, Lipur Sugiyanta, Successful Transmission Rate of Mobile Terminals with Agents in Segmented Ad Hoc Network, *International Journal of Advanced Computer Science and Applications (IJACSA)*, 2, 6, 1-12,2011.
  282. Kohei Arai, Tri Harsono, Agent and Diligent Driver Behavior on the Car-Following Part of the Micro Traffic in A Situation of Vehicles Evacuation on Sidoarjo Porong Roadway, *International Journal of Computer Science and Network Security (IJCSNS)*, 11,1,137-144, 2011.
  283. Kohei Arai, Tri Harsono, Achmad Basuki, Car-Following Parameters by Means of Cellular Automata in



- the Case of Evacuation, *International Journal of Computer Science and Security (IJCSS)*, 5, 1, (28-38)638-648, 2011.
284. Kohei Arai, Achmad Basuki, New Approach of Prediction of Sidoarjo Hot Mudflow Disaster Area Based on Probabilistic Cellular Automata, *Geoinformatica - An International Journal (GIJ)*, 1, 1, 1-11, 2011.
285. Kohei Arai, Tolle Herman, Method for real time text extraction of digital manga comic, *International Journal of Image Processing*, 4, 6, 669-676, 2011.
286. Kohei Arai, Noriyoshi To, Improving convergence performance by competitive learning/reinforcement learning online clustering with learning automata and its application to evacuation guidance systems, *Journal of the Institute of Image Electronics Engineers*, 40, 2, 361-168, 2011.
287. Kohei Arai, Method for estimation of grow index of tealeaves based on Bi-Directional reflectance function: BRDF measurements with ground based network cameras, *International Journal of Applied Science*, 2, 2, 52-62, 2011.
288. Kohei Arai, Kenro Yajima, Robot arm utilized having meal support system based on computer input by human eyes only, *International Journal of Human-Computer Interaction*, 2, 1, 120-128, 2011.
289. Kohei Arai, Lipur Sugiyanta, Energy behavior in Ad Hoc network minimizing the number of hops and maintaining connectivity of mobile terminals which moves from one to the others, *International Journal of Computer Science and Security*, 2, 5, 2011.
290. Kohei Arai, Red Tides -Combines satellite and ground based detection-, *SPIE Newsroom*, 10/1117/2, 1201012, 003267, 2011.
291. Kohei Arai, Tran Xuang Sang, Fuzzy Genetic Algorithm for prioritization determination with techniques for order performance by similarity to ideal solution, *International Journal of Computer Science and Network Security*, 11, 5, 1-7, 2011.
292. Kohei Arai, Tri Harsono, Achmad Basuki, Cellular automata for traffic modeling and simulation in a situation of evacuation from disaster areas -Cellular automata Simplicity behind Complexity-, Edt. Aiejandro Salcido, ISBN:978-953-307-230-2, InTech Pub. 193-218, 2011.
293. Kohei Arai and Tri Harsono, Agent and diligent driver behavior on the car-following part of the micro traffic flow in a situation of vehicles evacuation from Sidoarjo Prong roadway, *International Journal of Computer Science and Network Security*, 11, 1, 137-144, 2011.
294. Kohei Arai and Tolle Herman, Module based content adaptation of composite e-learning content for delivering to mobile learners, *International Journal of Computer Theory and Engineering*, 3, 3, 382-387, 2011.
295. Kohei Arai and Ronny Mardiyanto, A prototype of electric wheelchair controlled by eyes only for paralyzed users, *Journal of Robotics and Mechatronics*, 23, 1, 66-75, 2011.
296. Kohei Arai and Lipur Sugiyanta, Routing approach with immediate awareness of adaptive path while minimizing the number of hops and maintaining connectivity of mobile terminals which move from one to the others, *International Journal of Computer Science and Information Security*, 9, 2, 94-101, 2011.
297. Osamu Uchino, Tetsu Sakai, Tomohiro Nagai, Masahisa Nakazato, Isamu Morino, Tatsuya Yokota, Tsuneo Matsunaga, Nobuo Sugimoto, Kohei Arai, Hiroshi Okumura, Development of portable lidar for GOSAT product verification, *Journal of the Japanese Society of Remote Sensing*, 31, 4, 435-443, 2011
298. Kohei Arai, Liang XingMing, Z-R relationship and rainfall intensity comparison in TRMM/PR data based on Mie scattering and Rayleigh scattering assumptions, *Journal of the Photogrammetry Society of Japan*, 49,2,67-74,2011
299. Kohei Arai and Lipur Sugiyanta, Energy consumption in ad hoc network with agents minimizing the number of hops and maintaining connectivity of mobile terminals which move from one to the others, *International Journal of Computer and Network*, 3, 2, 71-86, 2011.
300. Kohei Arai, Wireless sensor network for tea estate monitoring in complementary usage with Earth observation satellite imagery data based on Geographic Information System(GIS), *International Journal of Ubiquitous Computing*, 1, 2, 12-21, 2011.
301. Kohei Arai, Method for estimation of total nitrogen and fiber contents in tealeaves with ground based network cameras, *International Journal of Applied Science*, 2, 2, 21-30, 2011.
302. Kohei Arai, Herman Tolle, Model based content adaptation of composite e-learning content for delivering to mobile learners, *International Journal of Computer Theory and Engineering*, 3, 3, 382-387, 2011
303. Shinichi Sobue, Kohei Arai, Hayato Okumura, Aya Yamamoto, Hiroshi Araki, Tsuneo Matsunaga, Proposal of audible system for remote sensing data, *Space Science Information Analysis Journal No. 1*, JAXA PR-11-007, ISSN 1349-1113, 1-6, 2012
304. Kohei Arai and Yasunori Terayama, Satellite and Ground based red tide detection method and system by means of peak shift of remote sensing reflectance, *International Journal of Applied Science*, 2, 3, 53-61, 2011.
305. Kohei Arai and Yasunori Terayama, A method for red tide detection and discrimination of red tide type (spherical and non-spherical shapes of red tide) through polarization measurements of sea surface,

- International Journal of Applied Science, 2, 3, 62-70, 2011.
306. Kohei Arai, Nagamitsu Ohgi, Fumihiko Sakuma, Masakuni Kikuchi, Satoshi Tsuchida and Hitomi Inada, Trend analysis of onboard calibration data of Terra/ASTER/VNIR and one of the suspected causes of sensitivity degradation, International Journal of Applied Science, 2, 3, 71-83, 2011.
  307. Kohei Arai, Method for estimation of damage grade and damaged paddy field areas due to salt containing sea breeze with typhoon using remote sensing imagery data, International Journal of Applied Science, 2, 3, 84-92, 2011.
  308. Kohei Arai and Liang XingMing, Comparative calibration method between two different wavelengths with aureole observations at relatively long wavelength, International Journal of Applied Science, 2, 3, 93-101, 2011.
  309. Kohei Arai and Yuji Yamada, Improvement of secret image invisibility in circulation image with Dyadic wavelet based data hiding with run-length coding, International Journal of Advanced Computer Science and Applications, 2, 7, 33-40, 2011.
  310. Kohei Arai, Yuichiro Eguchi and Yoichiro Kitajima, Extraction of line features from multifidus muscle of CT scanned images with morphological filter together with wavelet multi resolution analysis, International Journal of Advanced Computer Science and Applications, 2, 8, 60-66, 2011.
  311. Kohei Arai, CO<sub>2</sub> concentration change detection in time and space domains by means of wavelet analysis of MRA: Multi Resolution Analysis, International Journal of Advanced Computer Science and Applications, 2, 8, 82-86, 2011.
  312. Kohei Arai and Tolle Herman, Method for extraction product information from TV commercial, International Journal of Advanced Computer Science and Applications, 2, 8, 125-131, 2011.
  313. Kohei Arai, Kenta Higashi, Effect of sky radiometer calibration accuracy on aerosol complex refractive index and particle size distribution estimation and influence of aerosol particle size distribution on satellite-borne visible and near-infrared radiometer calibration accuracy, Japan Photogrammetry Society Magazine, 50, 4, 252-263, 2011.
  314. Kohei Arai and Tolle Herman, Text extraction from TV commercial using blob extraction method. International Journal of Research and Review of Computer Science, 2, 3, 895-899, 2011.
  315. Kohei Arai, Polarimetric SAR image classification with high frequency component derived from wavelet multi resolution analysis: MRA, International Journal of Advanced Computer Science and Applications, 2, 9, 37-42, 2011.
  316. Kohei Arai, Back-up communication routing through Internet satellite WINDS for transmitting of disaster relief data, International Journal of Advanced Computer Science and Applications, 2, 9, 21-26, 2011.
  317. Kohei Arai, Embedded object detection with radar echo data by means of wavelet analysis of MRA: Multi Resolution Analysis, International Journal of Advanced Computer Science and Applications, 2, 9, 27-32, 2011.
  318. Kohei Arai, 3D map creation with vehicle mounted single stereo camera reducing influence due to vehicle motions, International Journal of Research and Reviews on Computer Science, 2, 4, 1056-1062, 2011.
  319. Kohei Arai, Method for video data compression based on space and time domain seam carving maintaining original quality when it is replayed, International Journal of Research and Reviews on Computer Science, 2, 4, 1063-1068, 2011.
  320. Kohei Arai, Maximum entropy method based blind separation by means of neural network with feature enhancements by wavelet analysis, International Journal of Research and Reviews on Computer Science, 2, 4, 1116-1122, 2011.
  321. Kohei Arai, Method for support length determination of base function of wavelet for edge and line detection as well as moving object and change detections, International Journal of Research and Reviews on Computer Science, 2, 4, 1133-1139, 2011.
  322. Kohei Arai Comparative study of polarimetric SAR classification methods including proposed method with maximum curvature of trajectory of backscattering cross section in ellipticity and orientation angle space, International Journal of Research and Reviews on Computer Science, 2, 4, 1005-1009, 2011.
  323. Kohei Arai, Ariwa Koideshi, Sensitivity analysis of solar direct and scattered light in aerosol parameter estimation and measurement device for solar direct scattered light without solar tracking mechanism, Journal of the Photogrammetry Society of Japan, 50, 5, 276-283, 2011.
  324. Kohei Arai and Lipur Sugiyanta, Transmission behavior in ad hoc network minimizing the number of hops and maintaining connectivity of mobile terminals which move from one to the others, Advances in Communications and Media Research, Vol.9, 2011.
  325. Kohei Arai, Rosa Andrie, Human gait gender classification using 2D discrete wavelet transforms energy, International Journal of Computer Science and Network Security, 11, 12, 62-68, 2011.
  326. Kohei Arai, Lipur Sugiyanta, Energy consumption in Ad Hoc network with agents minimizing the number of hops and maintaining connectivity of mobile terminals which move from one to the others, International Journal of Computer Networking, 3, 2, 71-86, 2011.

327. Kohei Arai, Yasunori Terayama, Early detection of red tide and identification of red tide species using satellite, ship, and ground-based red tide monitoring systems, *Journal of the Photogrammetry Society of Japan*, 50, 6, 339-346, 2011.
328. Kohei Arai, Ronny Mardiyanto, Autonomous control of eye based electric wheel chair with obstacle avoidance and shortest path finding based on Dijkstra algorithm, *International Journal of Advanced Computer Science and Applications*, 2, 12, 19-25, 2011.
329. Kohei Arai, Ronny Mardiyanto, Eye-based human-computer interaction allowing phoning, reading e-book/e-comic/e-learning, Internet browsing and TV information extraction, *International Journal of Advanced Computer Science and Applications*, 2, 12, 26-32, 2011.
330. Kohei Arai, Ronny Mardiyanto, Eye based electric wheel chair control system-I(eye) can control EWC-, *International Journal of Advanced Computer Science and Applications*, 2, 12, 98-105, 2011.
331. Kohei Arai, Ronny Mardiyanto, Evaluation of users' impact for using the proposed eye based HCI with moving and fixed keyboard by using eeg signals, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1228-1234, 2011.
332. Kohei Arai, Ronny Mardiyanto, Electric wheel chair controlled by human eyes only with obstacle avoidance, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1235-1242, 2011.
333. Kohei Arai, Tri Harsono, Micro traffic flow model taking into account drivers' behavior and its application to evacuation simulations, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1243-1249, 2011.
334. Kohei Arai, Herman Tolle, Efficiency improvements of e-learning document search engine for mobile browser, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1287-1291, 2011.
335. Kohei Arai, Achmad Basuki, GIS based 2D cellular automata approach for prediction of forest fire spreading, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1305-1312, 2011.
336. Kohei Arai, Monte Carlo ray tracing simulation for bi-directional reflectance distribution function and grow index of tealeaves estimation, *International Journal of Research and Reviews on Computer Science*, 2, 6, 1313-1318, 2011.
337. Kohei Arai, Visualization of 3D object shape complexity with wavelet descriptor and its application to image retrievals, *Journal of Visualization*, DOI:10.1007/s, 12650-011-0118-6, 2011.
338. O.Uchino, I.Morino, Y.Yoshida, N.Kikuchi, M.Inoue, K.Nakano, T.Yokota, D.Wunch, P.Wennberg, G.Toon, J.Noeholt, V.Sherlock, B.Liley, D.Griffith, S.Kawakami, H.Ohyama, T.Nagai, T.Sakai, Kohei Arai, H.Okumura, Advanced validation of the GOSAT observed CO<sub>2</sub> and CH<sub>4</sub> at TCCON and prioritized observation sites, *Geophysical Research Abstract*, Vol. 14, EGU 2012, General Assembly, 2012.
339. Kohei Arai, Multi Resolution Analysis: MRA based bright band height estimation with Precipitation Radar data, *International Journal of Applied Science*, 3, 1, 1-8, 2012.
340. Kohei Arai, R.Mardiyanto, Evaluation of users' impact for using the proposed eye based HCI with moving and fixed keyboard by using eeg signals, *International Journal of Research and review on Computer Science*, 2, 6, 1228-1234, 2012.
341. Kohei Arai, R.Mardiyanto, Electric wheel chair controlled by human eyes only with obstacle avoidance, *International Journal of Research and review on Computer Science*, 2, 6, 1235-1242, 2012.
342. Kohei Arai, T.Harsono, Micro traffic flow model taking into account drivers' behavior and its application to evacuation simulations, *International Journal of Research and review on Computer Science*, 2, 6, 1243-1249, 2012.
343. Kohei Arai, T.Herman, Efficiency improvement of e-learning document search engine for mobile browser, *International Journal of Research and Review on Computer Science*, 2, 6, 1287-1291, 2012.
344. Kohei Arai, Monte Carlo ray tracing simulation for bi-directional reflectance distribution function and grow index of tealeaves estimations, *International Journal of Research and Review on Computer Science*, 2, 6, 1313-1318, 2012.
345. Kohei Arai, Visualization of 3D object shape complexity with wavelet descriptor and its application to image retrievals, *Journal of Visualization*, 15, 2, 155-166, 2012.
346. Kohei Arai, Y.Herdiyeni, H.Okumura, Comparison of 2D and 3D local binary pattern in lung cancer diagnosis, *International Journal of Advanced Computer Science and Applications*, 3, 4, 84-95, 2012.
347. Kohei Arai, Cell based GIS as Cellular Automata for disaster spreading prediction and required data systems, *CODATA Data Science Journal*, 137-141, 2012.
348. Kohei Arai, R.Mardiyanto, Robot arm control and feeding support system based on gaze input, *Transactions of the Institute of Electrical Engineers of Japan*, C132, 3, 416-423, 2012.
349. Kohei Arai, Sensor network for landslide monitoring with laser ranging system avoiding rainfall influence on laser ranging by means of time diversity and satellite imagery data based landslide disaster relief, *International Journal of Applied Sciences*, 3, 1, 1-12, 2012.
350. Kohei Arai, C.Rahmad, Wavelet based image retrieval method, *International Journal of Advanced Computer Science and Applications*, 3, 4, 6-11, 2012.
351. Kohei Arai, T.Herman, E-learning document search method with supplemental keywords derived from

- keywords in meta-tag and descriptions which are included in the header of the first search result, *International Journal of Advanced Computer Science and Applications*, 3, 4, 99-104, 2012.
352. Kohei Arai, Method for leaning efficiency improvements based on gaze location notifications on e-learning content screen display, *International Journal of Advanced Research in Artificial Intelligence*, 1, 3, 1-6, 2012.
  353. Kohei Arai, Counter measure for round trip delay which occurs in between satellite and ground with software network accelerator, *International Journal of Advanced Computer Science and Applications*, 3, 5, 116-121, 2012.
  354. Kohei Arai, Sonification method for representation of multi dimensional meteorological data derived from Earthly observation satellites, *International Journal of Research and Review on Computer Science*, 3, 2, 1538-1542, 2012.
  355. Kohei Arai, T.X.Sang, Emergency rescue simulation for disabled persons with help from volunteers, *International Journal of Research and Review on Computer Science*, 3, 2, 1543-1547, 2012.
  356. Kohei Arai, S.R.Sentinuwo, Path planning simulation for mobile robot using CA model to avoid transient obstacles, *International Journal of Research and Review on Computer Science*, 3, 2, 1548-1553, 2012.
  357. Kohei Arai, I.N.Abdullah, H.Okumura, Automatic detection method for clustered micro calcification in mammogram image based on statistical texture features, *International Journal of Advanced Computer Science and Applications*, 3, 5, 7-11, 2012.
  358. Kohei Arai, I.N.Abdullah, H.Okumura, Automatic detection method for clustered micro calcification in mammogram image based on statistical texture features, *International Journal of Advanced Research in Artificial Intelligence*, 1, 3, 22-26, 2012.
  359. Kohei Arai, T.Herman, Video searching optimization with supplemental semantic keyword for e-learning video searching, *International Journal of Research and Review on Computer Science*, 3, 3, 1640-1644, 2012.
  360. Kohei Arai, A.Basuki, T.Harsono, Hot mudflow prediction area model and simulation based cellular automata for LUSI and plume at Sidoarjo East Jawa, *Journal of Computational Science (Elsevier)* 3,3, 150-158, 2012.
  361. Kenta Azuma, Kohei Arai, Automatic threshold selection method for estimation purposes, *Journal of the Photogrammetry Society of Japan*, 51, 2, 84-94, 2012.
  362. Kohei Arai, Fractal model based tea tree and tealeaves model for estimation of well opened tealeaf ratio which is useful to determine tealeaf harvesting timing, *International Journal of Research and Review on Computer Science*, 3, 3, 1628-1632, 2012.
  363. Kohei Arai, Wearable health monitoring sensor network and its application to evacuation and rescue information server system for disabled and elderly person, *International Journal of Research and Review on Computer Science*, 3, 3, 1633-1639, 2012.
  364. Kohei Arai, M.Oda, Effect of pronunciation practice system based on personalized CG animations of mouth movement model, *International Journal of Advanced Computer Science and Applications*, 3, 6, 125-130, 2012.
  365. Kohei Arai, X.Q. Bu, Comparative study between the proposed GA based ISODATA clustering and the conventional clustering methods, *International Journal of Advanced Computer Science and Applications*, 3, 7, 125-131, 2012.
  366. Kohei Arai, T.X.Sang, N.T.Uyen, Task allocation model for rescue disable persons in disaster area with help of volunteers, *International Journal of Advanced Computer Science and Applications*, 3, 7, 96-101, 2012.
  367. Kohei Arai, Human-computer interaction based on gaze and its application systems, *Journal of the Institute of Image Electronics Engineers*, 41, 3, 296-301, 2012.
  368. Kohei Arai, Monte Carlo simulation of polarized atmospheric irradiance for determination of refractive index of aerosols, *International Journal of Research and Review on Computer Science*, 3, 4, 1744-1748, 2012.
  369. Kohei Arai, DP matching based image retrieval method with wavelet Multi Resolution Analysis: MRA which is robust against magnification of image size, *International Journal of Research and Review on Computer Science*, 3, 4, 1738-1743, 2012.
  370. Kohei Arai, Levenberg Marquardt of non-linear optimization method with numerically calculated derivatives of Jacobean matrix for water vapor and air temperature profile estimation with IR sounder data, *International Journal of Research and Review on Computer Science*, 3, 5, 1802-1807, 2012.
  371. Kohei Arai, Y.Terayama, Monte Carlo ray tracing simulation of polarization characteristics of sea water which contains spherical and non-spherical shapes of suspended solid and phytoplankton, *International Journal of Advanced Computer Science and Applications*, 3, 6, 85-89, 2012.
  372. Kohei Arai, Simultaneous estimation of geophysical parameters with microwave radiometer data based on accelerated Simulated Annealing: SA, *International Journal of Advanced Computer Science and Applications*, 3, 7, 90-95, 2012.

373. Kohei Arai, Image clustering method based on density maps derived from Self Organizing Mapping: SOM, *International Journal of Advanced Computer Science and Applications*, 3, 7, 102-107, 2012.
374. R.Mardiyanto, Kohei Arai, Eye-based Human Computer Interaction (HCI) A new keyboard for improving accuracy and minimizing fatigue effect, *Scientific Journal Cursor*, (ISSN 0216-0544), 6, 3, 1-4, 2012.
375. Kohei Arai, R.Mardiyanto, Moving keyboard for eye-based Human Computer Interaction: HCI, *Journal of Image and Electronics Society of Japan*, 41, 4, 398-405, 2012.
376. A.Basuki, Kohei Arai, Probabilistic Cellular Automata approach for predicting forest fire spreading area (Case study: Forest fire on Kalimantan), *Journal of Electronics, Mechanics & Robotics, Informatics & Computer, Telecommunications (EMITTER)*, 2, 2, 124-131, 2012.
377. T.Harsono, Kohei Arai, Deceleration in the evacuation from disaster area, *Journal of Electronics, Mechanics & Robotics, Informatics & Computer, Telecommunications (EMITTER)*, 2, 2, 203-210, 2012.
378. Kohei Arai, Y. J. Sun, Effects of business process re-engineering: BPR for local government Information Systems, *International Journal of Research and Review on Computer Science*, 3, 4, 1755-1760, 2012.
379. Kohei Arai, Monte Carlo based non-linear mixture model of earth observation satellite imagery pixel data, *International Journal of Advanced Computer Science and Applications*, 3, 8, 18-22, 2012.
380. Kohei Arai, S.R.Sentinuwo, Spontaneous breaking and lane changing effect on traffic congestion using Cellular Automata model applied to the two-lane traffic, *International Journal of Advanced Computer Science and Applications*, 3, 8, 39-47, 2012.
381. Kohei Arai, R.A.Asunara, Human gait gender classification in spatial and temporal reasoning, *International Journal of Advanced Research in Artificial Intelligence*, 1, 6, 1-6, 2012.
382. Kohei Arai, E-learning system which allows students' confidence level evaluation with their voice when they answer to the questions during achievement tests, *International Journal of Advanced Computer Science and Applications*, 3, 9, 80-84, 2012.
383. Kohei Arai, Free Open Source Software: FOSS based GIS for spatial retrievals of appropriate locations for ocean energy utilizing electric power generation plants, *International Journal of Advanced Computer Science and Applications*, 3, 9, 95-99, 2012.
384. Kohei Arai, Error analysis of air temperature profile retrievals with microwave sounder data based on minimization of covariance matrix of estimation error, *International Journal of Advanced Computer Science and Applications*, 3, 9, 85-89, 2012.
385. Kohei Arai, R.Mardiyanto, Helper robot with voice communication ability and eye movement control function, *Journal of the Institute of Image Electronics Engineers of Japan*, 41, 5, 535-542, 2012.
386. Kohei Arai, Ray tracing simulation for estimation of phase function of relatively large aerosol particles containing bubbles and experimental validity check, *International Journal of Research and Review on Computer Science*, 3, 5, 1812-1816, 2012.
387. Kohei Arai, Estimation method of Sea Surface Temperature: SST with MODIS data in particular utilizing Band 29 for reducing water vapor influence on SST retrievals, *International Journal of Research and Review on Computer Science*, 3, 5, 1808-1812, 2012.
388. Kohei Arai, Clustering method based on Messy Genetic Algorithm: GA for remote sensing satellite image clustering, *International Journal of Advanced Research in Artificial Intelligence*, 1, 8, 6-11, 2012.
389. Kohei Arai, Visualization of link structure and URL retrievals utilization of interval structure of URLs based on brunch and bound algorithms, *International Journal of Advanced Research in Artificial Intelligence*, 1, 8, 12-16, 2012.
390. O.Uchino, T.Sakai, T.Nagai, I.Morino, Kohei Arai, H.Okumura, S.Takubo, T.Kawasaki, Y.mano, T.Matsunaga, T.Yokota, On recent stratospheric aerosols observed by Lidar over Japan, *Journal of Atmospheric Chemistry and Physics*, 12, 11975-11984, 2012(doi:10.5194/acp-12, 11975-2012).
391. Kohei Arai, Sensitivity analysis for water vapor profile estimation with infrared sounder data based on inversion, *International Journal of Advanced Computer Science and Applications*, 3, 11, 65-70, 2012.
392. Kohei Arai, Evaluation of regressive analysis based sea surface temperature estimation accuracy with NCEP/GDAS data, *International Journal of Advanced Computer Science and Applications*, 3, 11, 47-52, 2012.
393. Kohei Arai, Wavelet based change detection for four dimensional assimilation data in space and time domains, *International Journal of Advanced Computer Science and Applications*, 3, 11, 71-75, 2012.
394. Kohei Arai, T.Fukamachi, H.Okumura, S.Kawakami, H.Ohyama, Sensitivity analysis of Fourier Transformation Spectrometer: FTS against observation noise on retrievals of carbon dioxide and methane, *International Journal of Advanced Computer Science and Applications*, 3, 11, 58-64, 2012.
395. Kohei Arai, Method for face identification with Facial Action Coding System: FACS based on eigen value decomposition, *International Journal of Advanced Research in Artificial Intelligence*, 1, 9, 34-38, 2012.
396. Kohei Arai, Method for 3D object recognition using several portions of 2D images through different

- aspects acquired with image scope included in the fiber retractor, *International Journal of Advanced Research in Artificial Intelligence*, 1, 9, 14-19, 2012.
397. Kohei Arai, Method for image source separation by means of independent component analysis: ICA, Maximum entropy method, and wavelet based method, *International Journal of Advanced Computer Science and Applications*, 3, 11, 76-81, 2012.
  398. K.Azuma, Kohei Arai, N.Ishitsuka, A thresholding method to estimate quantities of each class, *International Journal of Applied Science*, 3, 2, 1-11, 2012.
  399. Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura, Automated Detection Method for Clustered Microcalcification in Mammogram Image Based on Statistical Textural Features, (IJACSA) *International Journal of Advanced Computer Science and Applications*, Vol. 3, No.5, 7-11, 2012
  400. Kohei Arai, I.N.Abdulah, H.Okumura, Identification of ornamental plant functioned as medicinal plant based on redundant discrete wavelet transformation, *International Journal of Computer Applications*, 61, 1, 34-38, 2013.
  401. Kohei Arai, Monte Carlo ray tracing based sensitivity analysis of the atmospheric and oceanic parameters on the top of the atmosphere radiance, *International Journal of Advanced Computer Science and Applications*, 3, 12, 7-13, 2012.
  402. Kohei Arai, Method for water vapor profile retrievals by means of minimizing difference between estimated and brightness temperature derived from AIRS data and radiative transfer model, *International Journal of Advanced Computer Science and Applications*, 3, 12, 145-148, 2012.
  403. Kohei Arai Error analysis on estimation method for air temperature, atmospheric pressure, and relative humidity using absorption due to CO<sub>2</sub>, O<sub>2</sub>, and H<sub>2</sub>O which situated at around near infrared wavelength regions, *International Journal of Advanced Computer Science and Applications*, 3, 12, 192-196, 2012.
  404. Kohei Arai, Hideo Miyazaki, Masayuki Akashi, Determination of tea leaf plucking time and tree spirit determination using visible and near-infrared cameras, *Journal of the Photogrammetry Society of Japan*, 51, 1, 38-45, 2012
  405. Kohei Arai, Nonlinear Optimization Based Sea Surface Temperature: SST Estimation Methods with Remote Sensing Satellite Based Microwave Scanning Radiometer: MSR Data, *International Journal of Research and Reviews in Computer Science (IJRRCS)* Vol. 3, No. 6, 1881-1886, December 2012, ISSN: 2079-2557
  406. Kohei Arai, Comparative Study between Eigen Space and Real Space Based Image Prediction Methods by Means of Autoregressive Model, *International Journal of Research and Reviews in Computer Science (IJRRCS)* Vol. 3, No. 6, 1869-1874, December 2012, ISSN: 2079-2557
  407. Kohei Arai, Comparative Study on Image Prediction Methods between the Proposed Morphing Utilized Method and Kalman Filtering Method, *International Journal of Research and Reviews in Computer Science (IJRRCS)* Vol. 3, No. 6, 1875-1880, December 2012, ISSN: 2079-2557
  408. Kohei Arai Prediction method for time series of imagery data in eigen space, *International Journal of Advanced Research in Artificial Intelligence*, 2, 1, 12-19, (2013)
  409. Kohei Arai Image prediction method with non-linear control lines derived from Kriging method with extracted feature points based on morphing, *International Journal of Advanced Research in Artificial Intelligence*, 2, 1, 20-24, (2013)
  410. Kohei Arai Method for object motion characteristics estimation based on wavelet Multi-Resolution Analysis: MRA, *International Journal of Advanced Research in Artificial Intelligence*, 2, 1, 25-32, (2013)
  411. Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura, Identification of ornamental plant functioned as medicinal plant based on redundant discrete wavelet transformation, *International Journal of Computer applications*, 61, 1, 1-5, (2013)
  412. Kohei Arai, Comparative study on discrimination methods for identifying dangerous red tide species based on wavelet utilized classification methods, *International Journal of Advanced Computer Science and Applications*, 4, 1, 95-102, 2013.
  413. Kohei Arai, Nonlinear mixing model in remote sensing satellite images taking into account landscape, *International Journal of Advanced Computer Science and Applications*, 4, 1, 103-109, 2013.
  414. Kohei Arai, Monte Carlo ray tracing based nonlinear mixture model of mixed pixels in Earth observation satellite imagery data, *International Journal of Advanced Computer Science and Applications*, 4, 1, 148-152, 2013.
  415. Kohei Arai, Spatial-Temporal variations of turbidity and ocean current velocity of the Ariake Sea areas, Kyushu, Japan through regression analysis with remote sensing satellite data, *International Journal of Advanced Computer Science and Applications*, 4, 1, 95-102, 2013.
  416. Kohei Arai, Moving domestic robot control method based on creating and sharing maps with shortest path finding and obstacle avoidance, *International Journal of Advanced Research in Artificial Intelligence*, 2, 2, 23-28, 2013.
  417. Kohei Arai, Ronny Mardiyanto, Eye-based domestic robot allowing patient to be self-services and communications remotely, *International Journal of Advanced Research in Artificial Intelligence*, 2, 2,

- 29-33, 2013.
418. Kohei Arai, Voice recognition method with mouth movement videos based on forward and backward optical flow, *International Journal of Advanced Research in Artificial Intelligence*, 2, 2, 48-52, 2013.
  419. Kohei Arai, Method for image portion retrieval and display for comparatively large scale of imagery data onto relatively small size of screen which is suitable to block coding of image data compression, *International Journal of Advanced Computer Science and Applications*, 4, 2, 218-222, 2013.
  420. Kohei Arai, Method for estimation of aerosol parameters based on ground based atmospheric polarization irradiance measurements, *International Journal of Advanced Computer Science and Applications*, 4, 2, 226-233, 2013.
  421. Kohei Arai, Visualization of learning process for back propagation Neural Network clustering, *International Journal of Advanced Computer Science and Applications*, 4, 2, 234-238, 2013.
  422. Kohei Arai, Data fusion between microwave and thermal infrared radiometer data and its application to skin sea surface temperature, wind speed and salinity retrievals, *International Journal of Advanced Computer Science and Applications*, 4, 2, 239-244, 2013.
  423. Kohei Arai, Sensitivity analysis and validation of refractive index estimation method with ground based atmospheric polarized radiance measurement data, *International Journal of Advanced Computer Science and Applications*, 4, 3, 1-6, 2013.
  424. Kohei Arai, Vicarious calibration based cross calibration of solar reflective channels of radiometers onboard remote sensing satellite and evaluation of cross calibration accuracy through band-to-band data comparisons, *International Journal of Advanced Computer Science and Applications*, 4, 3, 7-14, 2013.
  425. Kohei Arai, Yuichi Sarusawa, Spatial-Temporal variations of turbidity and ocean current velocity of the Ariake Sea areas, Kyushu, Japan through regression analysis with remote sensing satellite data, *International Journal of Advanced Computer Science and Applications*, 4, 3, 20-25, 2013.
  426. Kohei Arai, Ronny Mardiyanto, Camera mouse including "Ctl-Alt-Del" key operation using gaze blink and mouth shape, *International Journal of Advanced Computer Science and Applications*, 4, 3, 83-91, 2013.
  427. Kohei Arai, Ronny Mardiyanto, Method for psychological status estimation by gaze location monitoring using eye-based Human-Computer Interaction, *International Journal of Advanced Computer Science and Applications*, 4, 3, 199-206, 2013.
  428. Kohei Arai, Cell based GIS as cellular automata for disaster spreading predictions and required data systems, *Advanced Publication, Data Science Journal*, Vol.12, WDS 154-158, 2013.
  429. Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura, Identification of ornamental plant functioned as medicinal plant based on redundant discrete wavelet transformation, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 60-64, 2013.
  430. Kohei Arai, Herman Tolle, Color radio-map interpolation for efficient fingerprint WiFi-based indoor location estimation, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 10-15, 2013.
  431. Kohei Arai, Cahya Rahmad, Content based image retrieval by using multi-layer centroid contour distance, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 16-20, 2013.
  432. Kohei Arai, Anik Nur Handayani, Predicting quality of answer in collaborative Q/A community, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 21-25, 2013.
  433. Kohei Arai, Osamu Shigetomi, Yuko Miura, Hideaki Munemoto, Rice crop field monitoring system with radio controlled helicopter based near infrared cameras through nitrogen content estimation and its distribution monitoring, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 26-37, 2013.
  434. Kohei Arai, Sadayuki Akaishi, Hideo Miyazaki, Yasuyuki Watabe, Takaki Yoshida, Regressive analysis on leaf nitrogen content and near infrared reflectance and its application to agricultural farm monitoring with helicopter mounted near infrared camera, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 38-43, 2013.
  435. Kohei Arai, Tran Xuan Sang, Decision making and emergency communication system in rescue simulation for people with disabilities, *International Journal of Advanced Research in Artificial Intelligence*, 2, 3, 77-85, 2013.
  436. Kohei Arai, Comparison between linear and nonlinear models of mixed pixels in remote sensing satellite images based on Cierniewski surface BRDF model by means of Monte Carlo ray tracing simulation, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4, 1-7, 2013.
  437. Kohei Arai, Anik Nur Handayani, E-learning system utilizing learners' characteristics recognized through learning process with Open Simulator, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4, 8-12, 2013.
  438. Kohei Arai, Tomoko Nishikawa, Method for car in dangerous action detection by means of wavelet Multi-Resolution Analysis based on appropriate support length of base function, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4, 13-17, 2013.
  439. Kohei Arai, Geography Markup Language: GML based representation of time series of assimilation

- data and its application to animation content creation and representations, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4, 18-22, 2013.
440. Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura, Rie Kawakami, Improvement of automated detection method for clustered micro calcification base on wavelet transformation and support vector machine, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4, 23-28, 2013.
  441. Kohei Arai, Category decomposition method for un-mixing of mixels acquired with spaceborne based visible and near infrared radiometers by means of Maximum Entropy Method with parameter estimation based on Simulated Annealing, *International Journal of Advanced Research in Artificial Intelligence*, 2, 4 64-69, 2013.
  442. Kohei Arai, Anik Nur Handayani, Question answering for collaborative learning with answer quality predictor, *International Journal of Modern Education and Computer Science*, 5, 5, 12-17, 2013.
  443. Kohei Arai, Rice crop quality evaluation method through regressive analysis between nitrogen content and near infrared reflectance of rice leaves measured from near field radio controlled helicopter, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 1-6, 2013.
  444. Kohei Arai, Sea ice concentration estimation method with satellite based visible to near infrared radiometer data based on category decomposition, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 7-13, 2013.
  445. Kohei Arai, Sensitivity analysis on sea surface temperature estimation method with thermal infrared radiometer data through simulations, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 14-21, 2013.
  446. Kohei Arai, Image clustering method based on Self-Organization Mapping: SOM derived density maps and its application for Landsat Thematic Mapper image clustering, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 22-31, 2013.
  447. Kohei Arai, Remote sensing satellite image database system allowing image portion retrievals utilizing principal component which consists spectral and spatial features extracted from imagery data, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 32038, 2013.
  448. Kohei Arai, Mash-up based content search engine for mobile devices, *International Journal of Advanced Research in Artificial Intelligence*, 2, 5, 39-43, 2013.
  449. Yeni Herdiyeni, Elvira Nurfahilah, Ervizal A., M.Zuhud, Ellyn K. Danayanti, Kohei Arai, Hiroshi Okumura, A computer aided system for tropical leaf medicinal plant identification, *International Journal on Advanced Science, Engineering and Information Technology*, 3, 1, 23-27, 2013.
  450. Kohei Arai, Category decomposition method based on matched filter for un-mixing of mixed pixels acquired with space borne based hyper-spectral radiometers, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 20-26, 2013.
  451. Kohei Arai, Lecture's e-Table (server terminal) which allows monitoring the location at which each student is looking during lessons with e-learning contents through client terminals, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 40-45, 2013.
  452. Kohei Arai, Method for 3D rendering based on intersection image display which allows representation of internal structure of 3D objects, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 46-50, 2013.
  453. Kohei Arai, Monte Carlo Ray Tracing: MCRT based knowledge base system for texture mapping together with height estimation using objects' shadow with high spatial resolution remote sensing satellite imagery data, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 51-55, 2013.
  454. Kohei Arai, Monte Carlo ray tracing based adjacency effect and nonlinear mixture model for remote sensing satellite image data analysis, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 56-64, 2013.
  455. Kohei Arai, Kiyoshi Hasegawa, Method for psychological status monitoring with line of sight vector changes (Human eyes movements) detected with wearing glass, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 65-70, 2013.
  456. Kohei Arai, Herman Tolle, Akihiro Serita, Mobile devices based 3D image display depending on users' actions and movements, *International Journal of Advanced Research in Artificial Intelligence*, 2, 6, 71-78, 2013.
  457. Kohei Arai, Cahya Rahmad, Comparative study between the proposed shape independent clustering method and the conventional method (k-means and the others), *International Journal of Advanced Research in Artificial Intelligence*, 2, 7, 1-5, 2013.
  458. Kohei Arai, Steven Ray Sentinuwo, Effect of drivers' scope of awareness with lane changing maneuvers using cellular automaton method, *International Journal of Advanced Research in Artificial Intelligence*, 2, 7, 6-12, 2013.
  459. Kohei Arai, Steven Ray Sentinuwo, Validity of spontaneous braking and lane changing with scope of awareness by using measured traffic flow, *International Journal of Advanced Research in Artificial Intelligence*, 2, 7, 13-17, 2013.



460. Kohei Arai, Recovering method of missing data based on the proposed modified Kalman filter when time series of mean data is known, *International Journal of Advanced Research in Artificial Intelligence*, 2, 7, 18-23, 2013.
461. Kohei Arai, Rosa Andrie Asmara, 3D skeleton model derived from Kinect depth sensor camera and its application to walking style quality evaluations, *International Journal of Advanced Research in Artificial Intelligence*, 2, 7, 24-28, 2013.
462. O.Uchino, T.Sakai, T.Nagai, I.Morino, T.Maki, M.Deushi, K.Shibata, M.Kajino, T.Kawasaki, T. Akaho, S.Takubo, H.Okumura, Kohei Arai, M.Nazato, T.Matsunaga, T.Yokota, Y.Sasano, DIAL measurement of lower tropospheric ozone over Saga (33.24N, 130.29E) in Japan and comparison with a chemical climate model, *Journal of Atmospheric Measurement Techniques*, 7, 171-194, 2014.
463. Kohei Arai, Indra Nugraha Abdullah, Hiroshi Okumura, Image identification based on shape and color descriptors and its application to ornamental leaf, *International Journal of Image, Graphics and Signal Processing*, 5, 10, 1-8, 2013.
464. Kohei Arai, Steven Ray Sentinuwo, Mobile robot motion using cellular automaton model to avoid transient obstacles, *International Journal of Information Technology and Computer Science*, 8, 73-80, 2013.
465. Kohei Arai, Comparison between Rayleigh and Mie scattering assumptions for Z-R relation and rainfall rate estimation with TRMM/PR data, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 1-6, 2013.
466. Kohei Arai, Comparative study on sea surface temperature estimation with thermal infrared radiometer data among conventional MCSST, split window and conjugate gradient based methods, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 7-15, 2013.
467. Kohei Arai, Prediction method of El Nino Southern Oscillation event by means of wavelet based data compression with appropriate support length of base function, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 16-20, 2013.
468. Kohei Arai, Multi spectral image classification method with selection of independent spectral features through correlation analysis, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 21-27, 2013.
469. Kohei Arai, Access fee charging system for information contents sharing through P2P communications, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 28-33, 2013.
470. Kohei Arai, Wearable computing system with input output devices based on eye-based Human Computer Interaction: HCI allowing location based web services, *International Journal of Advanced Research in Artificial Intelligence*, 2, 8, 34-39, 2013.
471. Kohei Arai, Method for data hiding based on Legall 5/2 (Cohen-Daubechies-Feauveau: CDF 5/3) wavelet with data compression and random scanning of secret imagery data, *International Journal of Wavelets Multi Solution and Information Processing*, 11, 4, 1-18, B60006 World Scientific Publishing Company, DOI: I01142/SO219691313600060, 1360006-1, 2013.
472. Kotaro Taguchi, Mariko Oda, Ou Kouno Seio Oda, Kohei Arai, Development of learning support software with CG animations for intellectually disabled children, *Journal of Education System and Information Society of Japan*, 30,1, 48-56, 2014
473. Kohei Arai, Genetic Algorithm utilizing image clustering with merge and split processes which allows minimizing Fisher distance between clusters, *International Journal of Advanced Research in Artificial Intelligence*, 2, 9, 7-13, 2013.
474. Kohei Arai, Secure copier which allows reuse copied documents with sorting capability in accordance with document types, *International Journal of Advanced Research in Artificial Intelligence*, 2, 9, 14-18, 2013.
475. Kohei Arai, Bi-directional reflectance distribution function: BRDF effect on un-mixing, category decomposition of the mixed pixel (MIXEL) of remote sensing satellite imagery data, *International Journal of Advanced Research in Artificial Intelligence*, 2, 9, 19-23, 2013.
476. Kohei Arai, Visualization of 5D assimilation data for meteorological forecasting and its related disaster mitigation utilizing VIS5D of software tool, *International Journal of Advanced Research in Artificial Intelligence*, 2, 9, 24-29, 2013.
477. Kohei Arai, Comparative study among least square method, steepest descent method, and conjugate gradient method for atmospheric sounder data analysis, *International Journal of Advanced Research in Artificial Intelligence*, 2, 9, 30-37, 2013.
478. Kohei Arai, Cheap and effective system for parking avoidance of the car without permission at disabled parking permit spaces, *International Journal of Advanced Research in Artificial Intelligence*, 2, 10, 1-6, 2013.
479. Kohei Arai, Noise suppressing edge enhancement based on Genetic Algorithm taking into account complexity of target image measured with Fractal dimension, *International Journal of Advanced Research in Artificial Intelligence*, 2, 10, 7-13, 2013.
480. Kohei Arai, Comparison among cross, onboard, and vicarious calibration for Terra/ASTER/VNIR,

- International Journal of Advanced Research in Artificial Intelligence, 2, 10, 14-18, 2013.
481. Kohei Arai, Image retrieval and classification method based on Euclidian distance between normalized features including wavelet descriptor, International Journal of Advanced Research in Artificial Intelligence, 2, 10, 19-25, 2013.
  482. Kohei Arai, Numerical representation of web sites of remote sensing satellite data providers and its application to knowledge based information retrievals with natural language, International Journal of Advanced Research in Artificial Intelligence, 2, 10, 26-31, 2013.
  483. Kohei Arai, Anik Nur Handayani, Question Answering for collaborative learning with answer quality prediction, International Journal of Modern Education and Computer Science, 5, 5, 12-17, 2013.
  484. Kohei Arai, Youm Jong Sun, Case study on effectiveness evaluation of Business Procedure Re-Engineering: BPR for Local Government in Saga Prefecture, Japan, International Journal of Advanced Research in Artificial Intelligence, 2, 11, 1-8, 2013.
  485. Kohei Arai, Free Open Source Software: FOSS based e-learning system together with blended learning system, International Journal of Advanced Research in Artificial Intelligence, 2, 11, 9-16, 2013.
  486. Kohei Arai, Method for tealeaves quality estimation through measurements of degree of polarization, leaf area index, photosynthesis available radiance and normalized difference vegetation index for characterization of tealeaves, International Journal of Advanced Research in Artificial Intelligence, 2, 11, 17-24, 2013.
  487. Kohei Arai, Frequent physical health monitoring as vital sign with psychological status monitoring for search and rescue of handicapped, disabled and elderly persons, International Journal of Advanced Research in Artificial Intelligence, 2, 11, 25-31, 2013.
  488. Kohei Arai, Fisher distance based GA clustering taking into account overlapped space among probability density functions of clusters in feature space, International Journal of Advanced Research in Artificial Intelligence, 2, 11, 32-37, 2013.
  489. Kohei Arai, Rosa Andrie Asmara, Gender classification method based on gait energy motion derived from silhouettes through wavelet analysis of human gait moving pictures, International Journal of Information Technology and Computer Science, 6, 3, 1-11, 2014.
  490. Kohei Arai, Anik Nur Handayani, Collaborative question answering system using domain knowledge and answer quality predictor, International Journal of Modern Education and Computer Science, 5, 11, 21-27, 2013.
  491. Kohei Arai, Method for aureole estimation refinement through comparisons between observed aureole and estimated aureole based on Monte Carlo Ray Tracing, International Journal of Advanced Research in Artificial Intelligence, 2, 12, 1-8, 2013.
  492. Kohei Arai, Multifidus muscle volume estimation based on three dimensional wavelet Multi Resolution Analysis: MRA with buttocks Computer Tomography: CT images, International Journal of Advanced Research in Artificial Intelligence, 2, 12, 9-15, 2013.
  493. Kohei Arai, Discrimination method between prolate and oblate shapes of leaves based on polarization characteristics measured with polarization film attached cameras, International Journal of Advanced Research in Artificial Intelligence, 2, 12, 22-34, 2013.
  494. Kohei Arai, Sensitivity analysis and error analysis of reflectance based vicarious calibration with estimated aerosol refractive index and size distribution derived from measured solar direct and diffuse irradiance as well as measured surface reflectance, International Journal of Advanced Research in Artificial Intelligence, 2, 12, 35-41, 2013.
  495. Kohei Arai, Rosa Andrie Asmara, Human gait skeleton model acquired with single side video camera and its application and implementation for gender classification, Journal of the Image Electronics and Engineering Society of Japan, Transaction of Image Electronics and Visual Computing, 1, 1, 78-87, 2013.
  496. Yeni Herdiyeni, Elvira Nurfahilah, Ervival A., M.Zuhud, Ellyn K. Danayanti, Kohei Arai, Hiroshi Okumura, A Computer Aided System for Tropical Leaf Medicinal Plant Identification, International Journal on Advanced Science, Engineering and Information Technology, 3, 1, 23-27, 2013.
  497. Kohei Arai, Information gathering support using gaze for visually impaired people, Image Lab Journal G1405-14, 1-7, 2014.
  498. Kohei Arai, Method for object motion characteristics estimation based on wavelet Multi resolution Analysis: MRA, International Journal of information Technology and Computer Science, 6, 1, 41-49, DOI: 10.5815/ijites, 2014.01.05, 2014.
  499. Kohei Arai Ronny Mardiyanto, Speed and vibration performance as well as obstacle avoidance performance of electric wheel chair controlled by human eyes only, International Journal of Advanced Research in Artificial Intelligence, 3, 1, 8-15, 2014.
  500. Kohei Arai, Sensitivity analysis for aerosol refractive index and size distribution estimation methods based on polarized atmospheric irradiance measurements, International Journal of Advanced Research in Artificial Intelligence, 3, 1, 16-23, 2014.
  501. Kohei Arai, Vital sign and location/attitude monitoring with sensor networks for the proposed rescue

- system for disabled and elderly persons who need a help in evacuation from disaster areas, *International Journal of Advanced Research in Artificial Intelligence*, 3, 1, 24-33, 2014.
502. Kohei Arai, Method and system for human action detection with acceleration sensors for the proposed rescue system for disabled and elderly persons who need a help in evacuation from disaster areas, *International Journal of Advanced Research in Artificial Intelligence*, 3, 1, 34-40, 2014.
503. O.Uchino, T.Sakai, T.Nagai, I.Morino, T.Maki, M.Deushi, K.Shibata, M.Kajino, T.Kawasaki, T. Akaho, S.Takubo, H.Okumura, Kohei Arai, M.Nazato, T.Matsunaga, T.Yokota, Y.Sasano, DIAL measurement of lower tropospheric ozone over Saga (33.24N, 130.29E) in Japan and comparison with a chemical climate model, *Journal of Atmospheric Measurement Technology*, 7, 1385-1394, 2014
504. Kohei Arai, Rosa Andrie Asmara, Human gait skeleton model acquired with single side video camera and its application and implementation for gender classification, *Journal of the Image Electronics and Engineering Society of Japan, Transaction of Image Electronics and Visual Computing*, 1, 1, 78-87, 2014.
505. Yeni Herdiyeni, Elvira Nurfahilah, Ervizal A., M.Zuhud, Ellyn K. Danayanti, Kohei Arai, Hiroshi Okumura, A Computer Aided System For Tropical Leaf Medicinal Plant Identification, *International Journal on Advanced Science, Engineering and Information Technology*, 3, 1, 23-27, 2013.
506. Kohei Arai, Anik Nur Handayani, Collaborative question answering system using domain knowledge and answer quality predictor, *International Journal of Modern Education and Computer Science*, 5,5,12-17, 2013.
507. Kohei Arai, Rosa Andrie Asmara, Gender classification method based on gait energy motion derived from silhouette through wavelet analysis of human gait moving pictures, *International Journal of Information technology and Computer Science*, 5, 5, 12-17, 2013.
508. Kohei Arai, Method for object motion characteristics estimation based on wavelet Multi resolution Analysis: MRA, *International Journal of Information Technology and Computer Science*, 1, 41-49, DOI: 10.5815/ijitcs, 2014.01.05, 2014.
509. Kohei Arai Ronny Mardiyanto, Speed and vibration performance as well as obstacle avoidance performance of electric wheel chair controlled by human eyes only, *International Journal of Advanced Research in Artificial Intelligence*, 3, 1, 8-15, 2014.
510. Kohei Arai, Method and system for human action detection with acceleration sensors for the proposed rescue system for disabled and elderly persons who need a help in evacuation from disaster areas, *International Journal of Advanced Research in Artificial Intelligence*, 3, 1, 34-40, 2014.
511. Kohei Arai, Indra Nugraha Abdullar, Hiroshi Okumura, Image retrieval based on color, shape and texture for ornamental leaf with medicinal functionality, *International journal of Image, Graphics and Signal Processing*, Vol.6, No.7, June 2014
512. Kohei Arai, Indra Nugraha Abdullar, H.Okumura, Comparative study of feature extraction components for several wavelet transformations for ornamental plants, *International Journal of Advanced Research in Artificial Intelligence*, 3, 2, 5-11, 2014.
513. Kohei Arai, Rosa Andrie Asmara, Human gait gender classification using 3D discrete wavelet transformation feature extraction, *International Journal of Advanced Research in Artificial Intelligence*, 3, 2, 12-17, 2014.
514. Kohei Arai, Steven Ray Sentinuwo, Method for traffic flow estimation using on-dashboard camera image, *International Journal of Advanced Research in Artificial Intelligence*, 3, 2, 18-22, 2014.
515. Kohei Arai, Anik Nur Handayani, Predicting quality of answer in collaborative question answer learning, *International Journal of Advanced Research in Artificial Intelligence*, 3, 2, 23-26, 2014.
516. Kohei Arai, Toshiya Katano, Preliminary study on phytoplankton distribution changes monitoring for the intensive study area of the Ariake sea, Japan based on remote sensing satellite data, *International Journal of Advanced Research in Artificial Intelligence*, 3, 2, 27-32, 2014.
517. Kohei Arai, Takuya Fukamachi, H.Okumura, Shuji Kawakami, Hirofumi Ohyama, Numerical deviation based optimization method for estimation of total column CO<sub>2</sub> measured with ground based Fourier Transformation Spectrometer: FTS data, *International Journal of Advanced Research in Artificial Intelligence*, 3, 3, 1-6, 2014.
518. Kohei Arai, Masanori Sakashita, Osamu Shigetomi, Yuko Miura, Estimation of protein content in rice crop and nitrogen content in rice leaves through regressive analysis with NDVI derived from camera mounted radio-control helicopter, *International Journal of Advanced Research in Artificial Intelligence*, 3, 3, 7-14, 2014.
519. Kohei Arai, Optimum band and band combination for retrieving total nitrogen, water, and fiber in tealeaves through remote sensing based on regressive analysis, *International Journal of Advanced Research in Artificial Intelligence*, 3, 3, 20-24, 2014.
520. O.Uchino, T.Sakai, T.Nagai, I.Morino, T.Maki, M.Deushi, K.Shibata, M.Kajino, T.Kawasaki, T. Akaho, S.Takubo, H.Okumura, Kohei Arai, M.Nazato, T.Matsunaga, T.Yokota, Y.Sasano, DIAL measurement of lower tropospheric ozone over Saga (33.24N, 130.29E) in Japan and comparison with a chemical climate model, *Journal of Atmospheric Measurement Techniques*, 7, 171-194, 2014.

521. Satoshi Sakai, Osamu Uchino, Isamu Morino, Tomohiro Nagai, Taiga Ako, Ken Kawasaki, Hiroshi Okumura, Kohei Arai, Akihiro Uchiyama, Akihiro Yamazaki, Tsuneo Matsunaga, Tatsuya Yokota, Sakurajima detected by Saga lidar and sky radiometer. Altitudinal distribution and optical properties of volcanic ash, *Journal of the Japan Remote Sensing Society*, 34,3,197-204,2014
522. Kohei Arai, Kyushu's microsattellites and the blessings of satellites through collaboration between industry, academia, and government, "Ureshi no Tea," *Journal of the Society of Instrument and Control Engineers*, 53, 11, 988-996, 2014.
523. 523. Ali Ridho Barakbah, Kohei Arai, Centronit: Initial Centroid Designation Algorithm for K-Means Clustering, *EMITTER: International Journal of Engineering Technology*, 2, 1, 50-62, 2014.
524. Kotaro Taguchi, Mariko Oda, Osamu Kono, Masao Oda, Kohei Arai, Development of educational support software using CG animation for people with intellectual disabilities, *Journal of the Society for Educational Systems and Information Studies*, 30,1,48-56,2014
525. Kohei Arai, Service robot with conversation support based on line-of-sight travel control, *Image Lab Journal*, G1404-03, 24-29, 2014
526. Kohei Arai, Service robot with communication aid together with routing controlled by human eyes, *Journal of Image Laboratory*, 25, 6, 24-29, 2014
527. Kohei Arai, Information collection service system by human eyes for disable persons, *Journal of Image Laboratory*, 25, 11, 1-7, 2014
528. Herman Tolle, Aryo Pinandito, Erq Muhamad Adans J, Kohei Arai, Virtual reality game controlled with users' head and body movement detection using smartphone sensors, *Asian Research Publishing Network: ARPN Journal of Engineering and Applied Sciences*, ISSN 1819-6608, 2015.
529. Kohei Arai, Yahoo! Search and web API utilized mashup based e-learning content search engine for mobile learning, *International Journal of Advanced Research on Artificial Intelligence*, 4, 6, 1-7, 2015.
530. Kohei Arai, Psychological status monitoring with cerebral blood flow: CBF, Electroencephalogram: EEG and Electro-Oculogram: EOG measurements, *International Journal of Advanced Research on Artificial Intelligence*, 4, 6, 8-15, 2015.
531. Kohei Arai, Relations between psychological status and eye movements, *International Journal of Advanced Research on Artificial Intelligence*, 4, 6, 16-22, 2015.
532. Kohei Arai, Takuto Konishi, Mobile device based personalized equalizer for improving hearing capability of human voices in particular for elderly persons, *International Journal of Advanced Research on Artificial Intelligence*, 4, 6, 23-27, 2015.
533. Kohei Arai, Toshiya Katano, Trend analysis of relatively large diatoms which appear in the intensive study area of the Ariake Sea, Japan in winter (2011-2015) based on remote sensing satellite data, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 15-20, 2015.
534. Kohei Arai, Taka Eguchi, Realistic rescue simulation method with consideration of roadnetwork restrictions, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 21-28, 2015.
535. Kohei Arai, Masanori Sakashita, Osamu Shigetomi, Yuko Miura, Relation between rice crop quality (protein content) and fertilizer amount as well as rice stump density derived from helicopter data, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 29-34, 2015.
536. Kohei Arai, Yoshihiko Sasaki, Shihomi Kasuya, Hideto Matsuura, Appropriate tealeaf harvest timing determination based on NIR images of tealeaves, *International Journal of Information Technology and Computer Science*, 7, 7, 1-7, 2015
537. Kohei Arai, Psychological status monitoring with cerebral blood flow, electroencephalogram and electrooculogram measurements, *Journal of Information Technology and Computer Science*, 7, 8, 1-7, 2015
538. Kohei Arai, Seamless location measurement system with WiFi beacon utilized and GPS based systems in both of Indoor and outdoor receiver location measurement, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 35-40, 2015.
539. Kohei Arai, Indra Nugraha Abdullah, Kensuke Kubo, Katsumi Sugawa, Methods for wild pig identifications from moving picture and discrimination of female wild pigs based on feature matching method, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 41-46, 2015.
540. Kohei Arai, Locality of chlorophyll-a concentration in the intensive study area of the Ariake Sea, Japan in winter seasons based on remote sensing satellite data, *International Journal of Advanced Research on Artificial Intelligence*, 4, 7, 18-25, 2015.
541. Kohei Arai, Yoshihiko Sasaki, Shihomi Kasuya, Hideo Matsuura, Appropriate harvest timing determination referring fiber content in tealeaves derived from ground based NIR camera images, *International Journal of Advanced Research on Artificial Intelligence*, 4, 8, 26-33, 2015.
542. Kohei Arai, Steven Ray Sentinuwo, Driver's awareness and lane changing maneuver in traffic flow based on cellular automata model, *International Journal of Advanced Research on Artificial Intelligence*, 4, 8, 34-41, 2015.
543. H. Ohyam, S. Kawakami, Tetsu Tanaka, Isamu Morino, O. Uchino, Makoto Inoue, T. Sakai, T. Nagai, A. Yamazaki, A. Uchiyama, T. Fukamachi, M. Sakashita, T. Kawasaki, T. Akaho, Kohei Arai, H. Okumura,

- Observations of XCO<sub>2</sub> and XCH<sub>4</sub> with ground-based high-resolution FTS at Saga, Japan and comparisons with GOSAT products, *Journal of Atmospheric Measurement Techniques Discussion*, 8, 8, 8257-8294, 2015
544. Kohei Arai, Masanori Sakashita, Osamu Shigetomi, Yuko Miura, Estimation of Rice Crop Quality and Harvest Amount from Helicopter Mounted NIR Camera Data and Remote Sensing Satellite Data, *International Journal of Advanced Research on Artificial Intelligence*, 4, 10, 16-22, 2015.
  545. Kohei Arai, Relation Between Chlorophyll-a Concentration and Red Tide in the Intensive Study Area of the Ariake Sea, Japan in Winter Seasons by Using MODIS Data, *International Journal of Advanced Research on Artificial Intelligence*, 4, 10, 8-15, 2015.
  546. Kohei Arai, Vicarious calibration data screening method based on variance of surface reflectance and atmospheric optical depth together with cross calibration, *International Journal of Advanced Research on Artificial Intelligence*, 4, 11, 1-8, 2015.
  547. Kohei Arai, Kenta Azuma, Method for surface reflectance estimation with MODIS by means of bi-section between MODIS and estimated radiance as well as atmospheric correction with sky-radiometer, *International Journal of Advanced Research on Artificial Intelligence*, 4, 11, 8-15, 2015.
  548. Kohei Arai, Takuji Maekawa, Toshihisa Maeda, Hiroshi Sekiguchi, Noriyuki Masago, Effect of sensitivity improvement of visible to near infrared digital cameras on NDVI measurement in particular for agricultural field monitoring, *International Journal of Advanced Research on Artificial Intelligence*, 4, 12, 1-8, 2015.
  549. Cahya Rahmad, Kohei Arai, Comparison contour extraction based on layered structure and Fourier descriptor on image retrieval, *International Journal of Advanced Computer Science and Applications*, 6, 12, 71-74, 2015.
  550. Iqbal Ahmed, Hiroshi Okumura, Kohei Arai, Analysis on existing basic SLAs and Green SLAs to define new sustainable green SLA, *International Journal of Advanced Computer Science and Applications*, 6, 12, 100-108, 2015.
  551. Kohei Arai, Comparative Study of optimization Methods for Estimation of Sea Surface Temperature and Ocean Wind with microwave Radiometer data, *International Journal of Advanced Research on Artificial Intelligence*, 5, 1, 1-6, 2016.
  552. Kohei Arai, Taka Eguchi, Rescue System with Health Condition Monitoring Together with Location and Attitude Monitoring as well as the Other Data Acquired with Mobile Devices, *International Journal of Advanced Research on Artificial Intelligence*, 5, 1, 7-13, 2016.
  553. Kohei Arai, Masanori Sakashita, Evaluation of Cirrus Cloud Detection Accuracy of GOSAT/CAI and Landsat-8 with laser Radar: Lidar and Confirmation with Calipso Data, *International Journal of Advanced Research on Artificial Intelligence*, 5, 1, 14-21, 2016.
  554. H.Ohyama, S.Kawakami, O.Uchino, T.Sakai, I.Morino, T.Nagai, K.Shiomi, M.Sakashita, T.Akaho, H.Okumura, Kohei Arai, Seasonal Variation of O<sub>3</sub>-CO Correlation Driven from Remote Sensing Measurements Over Western Japan, *Journal of Atmospheric Environment*, 147, 344-354, 2016
  555. Kohei Arai, Masaya Nakashima, Creation of a remote Sensing Portal for Practical Use Dedicated to Local Governments in Kyushu, Japan, *International Journal of Advanced Research on Artificial Intelligence*, 5, 3, 1-7, 2016.
  556. Yoshinori Bandoh, Osamu Hukuda, Hiroshi Okumura, Kohei Arai, Object Identification Based on Deep Learning Neural Network and Its Application for Prosthetic Hand Controls, *Journal of Society of Measurement and Control Engineers*, to appear
  557. Kohei Arai, Takashi Higuchi, Method for Reducing the Number of Wild Animal Monitors by Means of Kriging, *International Journal of Advanced Research on Artificial Intelligence*, 5, 5, 14-20, 2016.
  558. Yoshinori Bando, Osamu Fukuda, Hiroshi Okumura, Kohei Arai Control of electric prosthetic hand that combines myoelectric potential identification and general object recognition Robotics and Mechatronics Lecture Abstracts 2016 2016 Volume 2A1-03a2 Publication date: 2016
  559. Akira Ono, Kohei Arai Radiation Calibration of Satellite-mounted Optical Sensors 1st Introduction *Journal of the Japanese Society of Remote Sensing* 2016 Volume 36 Issue 3 256-263 Publication date: 2016/07/05
  560. Akira Ono, Kohei Arai Radioactivity calibration of satellite-mounted optical sensors 5th (final round) Integrated analysis of calibration data *Journal of the Japanese Society of Remote Sensing* 2017 Volume 37 Issue 4 375-384 Publication date: 2017/09/20
  561. Kohei Arai, Masanori Sakashita, Hiroshi Okumura, Shuichi Kawakami, Kei Shiomi, Hirofumi Ohyama, Comparative Study on Cloud Parameter Estimation Among GOSAT/CAI, MODIS, CALIPSO/CALIOP and Landsat-8/OLI with Laser Radar as Truth Data, *International Journal of Advanced Research on Artificial Intelligence*, 5, 5, 21-29, 2016.
  562. Kohei Arai, One of the Possible Causes for Diatom Appearance in Ariake Bay Area in Japan in the Winter from 2010 to 2015 (Clarified with AQUA/MODIS), *International Journal of Advanced Research on Artificial Intelligence*, 5, 4, 1-8, 2016.
  563. Kohei Arai, Shohei Fujise, Wildlife Damage Estimated and Prediction Using Blog and Tweet

- Information, *International Journal of Advanced Research on Artificial Intelligence*, 5, 4, 15-21, 2016.
564. Iqbal Ahmed, Hiroshi Okumura, Kohei Arai, An Information model as a Guideline to Design Sustainable Green SLA (GSLA), *International Journal of Advanced Computer Science and Applications*, 7, 4, 302-310, 2016.
565. Kohei Arai, Relation between Large Sized Diatom Appearance and Meteorological Data in Ariake Bay Area in Japan, in Particular, in the Winter in 2016, *International journal of Engineering Science and Research Technology*, 2, 2, 1-9, 2016
566. Kohei Arai, Gondoh, Miura, Shigetomi, Effect of Stump density, Fertilizer on Rice Crop Quality and Harvest Amount in 2015 Investigated with Drone mounted NIR Camera Data, *International journal of Engineering Science and research Technology*, 2, 2, 1-7, 2016
567. O.Uchino, T.Sakai, T.Izumi, T.Nagai, I.Morino, A.Yamazaki, M.Deushi, K.umimoto, T.Maki, Y.Tanaka, T.Akaho, H.Okumura, Kohei Arai, T.Nakatsuru, T.Matsunaga, T.Yokota, Lidar Detection of High Concentrations of Ozone and Aerosols Transported from Northwest Asia Over Saga, Japan, *Atmospheric Chemistry and Physics*, doi:10.5194/acp-2016-520
568. Keiya Yummoto, Takashi Nagao, Maki Kikuchi, Tsuuoshi Sekiyama, Hiroshi Murakami, Taichu Tanaka, Akinori Ogi, Hitoshi Irie, Pradeep Khatri, Hiroshi Okumura, Kohei Arai, Isamu Morino, Osamu Uchino, Takashi Maki, Aerosol data assimilation using data from Himawari-8, a next generation geostationary meteorological satellite, *Geophysical Research Letters*, AGU Publication, American Geophysical Union Journal, Wiley Online Library, DOI10.1002/2016 GL069298, 2016
569. Kohei Arai, Thresholding Based Method for Rain, Cloud Detection with NOAA/AVHRR Data by Means of Jacobi Iteration Method, *International Journal of Advanced Research on Artificial Intelligence*, 5, 6, 21-27, 2016.
570. Akira Ono, Kohei Arai, Radiometric Calibration of Spaceborne Optical Sensors, *Journal of Remote Sensing Society of Japan*, 36, 3, 256-263, 2016
571. Herman Tolle, Kohei Arai, Design of Head Movement Controller System (HEMOCS) for Control Mobile Application Through Head Pose Movement Detection, *International Journal of Interactive Mobile Technologies*, 10, 3, 24-28, 2016.
572. Kohei Arai, Method for 3D Image Representation with Reducing the Number of Frames Based on Characteristics of Human Eyes, *International Journal of Advanced Research on Artificial Intelligence*, 5, 8, 7-12, 2016.
573. Kohei Arai, Sensitivity Analysis of Aerosol Parameter Estimations with Measured Solar Direct and Diffuse Irradiance, *International Journal of Advanced Research on Artificial Intelligence*, 5, 8, 13-20, 2016.
574. Kohei Arai, Pursuit Reinforcement Competitive Learning: PRCL Based Online Clustering with Tracking Algorithm and Its Application to Image Retrieval, *International Journal of Advanced Research on Artificial Intelligence*, 5, 9, 9-16, 2016.
575. Iqbal Ahmed, Hiroshi Okumura, Kohei Arai, Identifying Green Services Using GSLA Method for Archiving Sustainability in Industries, *International Journal of Advanced Computer Science and Applications*, 7, 9, 160-167, 2016.
576. Kohei Arai, Cahya Rahmad, Image Retrieval Method Utilizing Texture Information Derived from Discrete Wavelet Transformation Together with Color Information, *International Journal of Advanced Research on Artificial Intelligence*, 5, 10, 1-6, 2016.
577. Kohei Arai, Error Analysis of Line of Sight Estimation Using Purkinje Images for Eye-Based Human Computer Interaction: EBHCI, *International Journal of Advanced Research on Artificial Intelligence*, 5, 10, 14-23, 2016.
578. Kohei Arai, Method for Vigor Diagonosis of Tea Trees Based on Nitrogen Content in Tealeaves Relating to NDVI, *International Journal of Advanced Research on Artificial Intelligence*, 5, 10, 24-30, 2016.
579. Kohei Arai, Pursuit Reinforcement Competitive Learning: PRCL Based On-line Clustering with Learning Automata, *International Journal of Advanced Research on Artificial Intelligence*, 5, 10, 37-43, 2016.
580. Kohei Arai, Method for Aerosol Parameter Estimation Error Analysis- Consideration of Noises Included in the Measured Solar Direct and Diffuse Irradiance, *International Journal of Advanced Research on Artificial Intelligence*, 5, 11, 1-9, 2016.
581. Kohei Arai, Aerosol Parameter Estimation Method Utilizing Solar Direct and Diffuse Irradiance Measuring Instrument without Sun Tracking Mechanics, *International Journal of Advanced Research on Artificial Intelligence*, 5, 11, 10-16, 2016.
582. Kohei Arai, Kenji Gondoh, Osamu Shigetomi, Yuko Miura, Method for NIR Reflectance Estimation with Visible Camera Data Based on Regression for NDVI Estimation and Its Application for Insect Damage Detection of Rice Paddy Fields, *International Journal of Advanced Research on Artificial Intelligence*, 5, 11, 17-22, 2016.
583. Kohei Arai, Size Distribution Estimation Method Using Reflected Laser Light Angle Dependency by

- Rain Droplets, *International Journal of Advanced Research on Artificial Intelligence*, 5, 12, 1-7, 2016.
584. Kohei Arai, Data Hiding Method Replacing LSB of Hidden Portion for Secrete Image with Run-Length Coded Image, *International Journal of Advanced Research on Artificial Intelligence*, 5, 12, 8-16, 2016.
585. Herman Tolle, Aryo Pinandto, Eric Muhamad, Adans J., Kohei Arai, Virtual reality game controlled with user's head and body movement detection using smartphone sensors, *Asian Research Publishing Network: ARPN Journal of Engineering and Applied Sciences*, 10, 20, 9776-9782, 2015, ISBN1819-6608., 2015.
586. Osamu Fukuda, Takuya Yoshihara, Kenji Endo, Ahmed Iqbal, Kohei Arai, Hiroshi Okumura, Kenichi Yamashita Evaluation of the reproductive ability of individual dairy cows using Bayesian networks Automatic Control Association Conference Proceedings 2017 Volume 60 FrA2-5 Publication date : 2017
587. Kohei Arai, Takashi Higuchi, Tetsuya Murakami, Estimation Method of the Total Number of Wild Animals based on Modified Jolly's Method, *International Journal of Advanced Computer Science and Applications*, 8, 1, 341-346, 2017.
588. Kohei Arai, Prediction method for large diatom appearance with meteorological data and MODIS derived turbidity as well as chlorophyll-a in Ariake Bay area in Japan, *International Journal of Advanced Computer Science and Applications IJACSA*, 8, 3, 39-44, 2017.
589. Kohei Arai, Taiki Ishigaki, Mariko Oda, Spatial comprehension exercise system with 3D-CG of toy model for disabled children, *International Journal of Advanced Computer Science and Applications IJACSA*, 8, 4, 189-194, 2017.
590. Kohei Arai, Kohya Iwamura, Line of sight estimation accuracy improvement using depth image and ellipsoidal model of cornea curvature, *International Journal of Advanced Computer Science and Applications IJACSA*, 8, 5, 549-556, 2017.
591. Iqbal Ahmed, Hiroshi Okumura, Kohei Arai, Osamu Fukuda, Sustainable Green SLA(GSLA) validation using Bayesian Network model, *International Journal of Advanced Computer Science and Applications IJACSA*, 8, 5, 208-215, 2017.
592. Kohei Arai, Takuto Konishi, Hearing aid method by equalizing frequency response of phoneme extracted from human voice, *International Journal of Advanced Computer Science and Applications IJACSA*, 8, 7, 88-93, 2017.
593. Ono, A.; Arai, K. Radiometric calibration of spaceborne optical sensors, lecture series 5: Integrating analysis of calibration data. *Journal. Remote Sensing. Society. Japan.* 2017, 37(4), 375-384. (in Japanese), 2017.
594. Kohei Arai, Iteration Method for Simultaneous Estimation of Vertical Profiles of Air Temperature and Water Vapor with AQUA/AIRS Data, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 1, 219-223, 2018.
595. Kohei Arai, Method for Detection of Foreign Matters Contained in Dried Nori (Seaweed) Based on Optical Property, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 1, 92-98, 2018.
596. Kohei Arai, Cadastral and Tea Production Management System with Wireless Sensor Network, GIS, Based System and IoT Technology, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 1, 38-42, 2018.
597. Kohei Arai, Mobile Phone Operations using Human Eyes Only and Its Applications, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 3, 2018.
598. Kohei Arai, Method for Thermal Pain Level Prediction with Eye Motion using SVM, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 4, 170-175, 2018.
599. Kohei Arai, Relative Humidity Profile Estimation Method with AIRS (Atmospheric Infrared Sounder) Data by Means of SDM (Steepest Descent Method) with Initial Value Derived from Linear Estimation, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 5, 292-299, 2018.
600. Kohei Arai, Yoshikazu Saito, Rule Based Artificial Intelligent System of Cucumber Greenhouse Environment Control with IoT Technology, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 6, 104-110, 2018.
601. Kohei Arai, Improved Langley and Ratio Langley Methods for Improving Sky-Radiometer Accuracy, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 6, 90-98, 2018.
602. Kohei Arai, Taiki Ishigaki, Mariko Oda, Experimental Study of Spatial recognition Capability Enhancement with Building Blocks Learning Contents for Disabled Children, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 6, 83-89, 2018.
603. Kohei Arai, Osamu Fukuda, Hiroshi Okumura, Kenji Endo, Kenichi Yamashita, Time Series Analysis for Shortened Labor Mean Interval of Dairy Cattle with the Data of BCS, RFS, Weight, Amount of Milk and Outlook, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 7, 108-115, 2018.
604. Kohei Arai, Kaname Seto, El Niño/La Niña Identification Based on Takens Reconstruction Theory, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 8, 86-91, 2018.

605. Sandhyavitri, Ari Yusa Muhamad, Fajri Mardan, Sutikro Sigit, Kohei Arai, Mapping and Simulating Watershed Performances Based on GIS, Remote Sensing and SWT, *Universal Journal of Geoscience*, 6, 1, 13-23, 2018.
606. Kohei Arai, Takashi Higuchi, Hiroshi Okumura, Hirofumi Ohyama, Shuji Kwakami, Kei Shiomi, Quality Flag of GOSAT/FTS Products Taking into Account Estimation Reliability, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 9, 67-74, 2018.
607. Kohei Arai, Osamu Shigetomi, Yuko Miura, Artificial Intelligence Based Fertilizer Control for Improvement of Rice Quality and Harvest Amount, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 10, 61-67, 2018.
608. Cahya Rahmed Kohei Arai, Arief Prasetyo, Noriza Arigki, Noble Method for Data Hiding using Steganography Discrete Wavelet Transformation and Cryptography Triple Data Encryption Standard: DES, *International Journal of Advanced Computer Science and Applications IJACSA*, 9, 11, 261-266, 2018.
609. Kohei Arai, Wahyidi Hasbi, AHadi Syafudin, Patria Ralhnn Hakim, Saryhic Salawat, Lilik Budi zParse, Yudi Setiawan, Method for uncertainty evaluation of vicarious calibration of spaceborne visible to near infrared radiometers, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 1, 387-393, 2019
610. Kohei Arai, Phytoplankton discrimination method with wavelet descriptor based shape feature extraction from microscopic images, *Journal of RIMS Signal and time frequency analysis*, Kokyuroku edited by Ryuichi Ashino, Kyoto University, 50-86, 2019
611. Kohei Arai, Akihiro Yamashita, Hiroshi Okumura, Pedestrian safety with eye contact between autonomous car and pedestrian, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 5, 161-165, 2019.
612. Kohei Arai, Toshiya Nakamura, Hiroishi Okumura, Tennis player training support system based on sport vision, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 5, 166-171, 2019.
613. Takego Yoshihara, Osamu Fukuda, Iqbal Ahmad, Yuhan He, Hiroshi Okumura, Kohei Arai, Kenji Endo, Naoki Takeuchi, Hideo Matsuda, Takayuki Yamanouchi, Junji Egashira, Kenichi Yamashita, Evaluating programmed artificial insemination for cattle production, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 12, 642-647, 2019.
614. Kohei Arai, Asato Mizoguchi, Hiroshi Okumura, Thermal pain level estimation method with heart rate and cerebral blood flow, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 7, 268-272, 2019.
615. Patrick Hock, Koichi Nakayama, Kohei Arai, A tool for C++ header generation, *International Journal of Advanced Computer Science and Applications IJACSA*, 458-465, 2019.
616. Kohei Arai, Sound user interface with touch panel for data and information expression and its application to meteorological data representation, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 8, 39-44, 2019.
617. Muhammed Harfis, Herman Tolle, Ahmed Ahmed Atifi Supionto, Kohei Arai, Synthesizing perceived has ability scores using GUQ metric in high school derisory digital educational gaming in depth usability and game design study, *International Journal of the Computer in Human Behavior*, Elsevier 2019.
618. Kohei Arai, Modified seam curving changing resizing depending on the object size in time and space domains, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 9, 143-150, 2019.
619. Kohei Arai, Prediction method for large diatom appearance with meteorological data and MODIS derived turbidity and chlorophyll-a in Ariake bay area in Japan, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 9, 39-44, 2019.
620. Kohei Arai, Osamu Shigetomi, Yuko Miura, Satoshi Yatsuda, Smartphone image based agricultural product quality and harvest amount prediction method, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 9, 24-29, 2019.
621. Cahya Rahmad, Kohei Arai, Rawashah, Tanggon Klbu, Object detection system to help navigating visual impairments, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 10, 140-143, 2019.
622. Kohei Arai, e-learning system using mashup based e-learning content collection and an attractive avatar with Open Simulator, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 11, 50-55, 2019.
623. Kohei Arai, Comprehensive e-learning system with simulation capabilities for understanding of complex equations, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 11, 330-335, 2019.
624. Kamil Fagih, Wahyu Primadi, Anik Nur Harayani, Ari Priharto, Kohei Arai, Smart grid photovoltaic system pilot scale using sunlight intensity and state of charge (SoC) battery based on Mamdani fuzzy



- logic control, *Journal of Mechatronics, Electrical Power and Vehicular Technology*, 10, 36-47, 2019.
625. Kohei Arai, Flooding and oil spill disaster relief using Sentinel of remote sensing satellite data, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 12, 290-297, 2019.
626. Kohei Arai, Convolutional neural network considering physical processes and its application to disaster detection, *International Journal of Advanced Computer Science and Applications IJACSA*, 10, 12, 105-111, 2019.
627. Satoshi Tsuchida, Hirokazu Yamamoto, Toru Kouyama, Kenta Obata, Fumihiko Sakuma, Tetsuya Tachikawa, Akihide Kamei, Kohei Arai, Jeffery S. Czaplai Meyers, Stuart Biggar, Kurtis J. Thome, Radiometric degradation curves for the ASTER/VNIR processing using vicarious and lunar calibrations *Journal of Remote Sensing*, 12, 427, 1-18, 2020.
628. Kohei Arai, Adjacency effects of layered clouds by means of Monte Carlo Ray Tracing, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 1, 95-98, 2020.
629. Kohei Arai, Sea breeze damage estimation method using Sentinel of remote sensing satellite data, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 2, 40-47, 2020.
630. Herman Tolle, Muhammad Hefif, Aloud Afif, Supianto, Kohei Arai, Perceived usability of educational chemistry game gathered via CSUQ usability testing in Indonesian high school students, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 3, 715-724, 2020.
631. Kohei Arai, Remote sensing satellite image clustering by means of Messy genetic algorithm, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 3, 309-314, 2020.
632. Kohei Arai, Method for rainfall rate estimation with satellite based microwave radiometer data, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 3, 82-91, 2020.
633. Yuman He, Osamu Fukuda, Daisuke Sakiguchi, Nobuhiko Yamaguchi, Hiroshi Okumura, Kohei Arai, Development of a practical tool in pick and place tasks for human workers, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 4, 781-786, 2020.
634. Kohei Arai, Image classification considering probability density function based on Simplified beta distribution, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 4, 481-486, 2020.
635. Kohei Arai, Satellite Image Database Search Engine which Allows Fuzzy Expression of Geophysical Parameters of Queries, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 5, 69-73, 2020.
636. Kohei Arai, Discrete Cosine Transformation based Image Data Compression Considering Image Restoration, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 6, 125-131, 2020.
637. Kohei Arai, Routing Protocol based on Floyd-Warshall Algorithm Allowing Maximization of Throughput, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 6, 436-441, 2020.
638. Kohei Arai, Hiroshi Okumura, Shogo Kajiki, Flood Damage Area Detection Method by Means of Coherency Derived from Interferometric SAR Analysis with Sentinel-1A SAR, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 7, 88-94, 2020.
639. Kohei Arai, Eisuke Kisu, Kazuhiro Nagafuchi, Barley Quality Estimation Method with UAV Mounted NIR Camera Data based on Regressive Analysis, *International Journal of Advanced Computer Science and Applications IJACSA*, 11, 7, 95-101, 2020.
640. Kohei Arai, Image Restoration based on Maximum Entropy Method with Parameter Estimation by Means of Annealing Method, *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 8, 255-261, 2020
641. Kohei Arai, Maximum Likelihood Classification based on Classified Result of Boundary Mixed Pixels for High Spatial Resolution of Satellite Images, *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 9, 24-30, 2020.
642. Kohei Arai, Extraction of Keywords for Retrieval from Paper Documents and Drawings based on the Method of Determining the Importance of Knowledge by the Analytic Hierarchy Process: AHP, (IJACSA) *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 10, 48-55, 2020.
643. Kohei Arai, Data Retrieval Method based on Physical Meaning and its Application for Prediction of Linear Precipitation Zone with Remote Sensing Satellite Data and Open Data, (IJACSA) *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 10, 56-65, 2020.
644. Yunan He, Osamu Fukuda, Nobuhiko Yamaguchi, Hiroshi Okumura, Kohei Arai, Noble Control Scheme for Prosthetic Hands through Spatial Understanding, (IJACSA) *International Journal of Advanced Computer Science and Applications*, Vol. 11, No. 10, 721-727, 2020.
645. Kohei Arai, Feature extraction of El Niño Southern Oscillation ENSO based on wavelet analysis with optimal support length Daubechies basis, *Kyoto University Institute of Mathematical Research Record: Application to time-frequency frames and image processing*,
646. Kohei Arai, Kaname Seto, Recursive Least Square: RLS Method-Based Time Series Data Prediction

- for Many Missing Data, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 11, No. 11, 66-72, 2020.
647. Kohei Arai, Context Classification based on Mixing Ratio Estimation by Means of Inversion Theory, International Journal of Advanced Computer Science and Applications, Vol. 11, No. 12, 44-50, 2020.
  648. Kohei Arai, Ice Concentration Estimation Method with Satellite based Microwave Radiometer by Means of Inversion Theory, International Journal of Advanced Computer Science and Applications, Vol. 11, No. 12, 88-95, 2020.
  649. Aulia Akhrian Syahidi1\*, Herman Tolle2, Ahmad Afif Supianto3, Tsukasa Hirashima4, Kohei Arai5, Interactive M-Learning Media Technology to Enhance the Learning Process of Basic Logic Gate Topics in Vocational School and Engineering Education, International. Journal. Engineering. Education. Vol. 2(2), 2020:50-63, 2020.
  650. Cahya Rahmad, Kohei Arai, Rosa A. Asmara, Ekojono Dimas, R. H. Putra, Comparison of Geometric Features and Color Features for Face Recognition, International Journal of Intelligent Engineering and Systems, IJIES on Volume 14, Issue 1, 541-551, 2021 DOI: 10.22266/ijies, 2021.
  651. Nima Pahlevan, Antoine Mangin; Sunadarabalan Balasubramanian; Brandon Smith; Krista Alikas; Claudio Barbosa; Simon Bélanger; Caren Binding; Mariano Bresciani; Claudia Giardino; Daniela Gurlin; Yongzhen Fan; Tristan Harmel; Moritz K Lehmann; Ronghua Ma; Leif Olmanson; Natascha Oppelt; Steef Peters; Nathalie Reynaud; Lino A Sander de Carvalho; Evangelos Spyarakos; François Steinmetz; Kerstin Stelzer; Sindy Sterckx; Thierry Tormos; Quinten Vanhellemont; Mark Warren; Martin Ligi; Kohei Arai; Peter Hunter; Joji Ishikaza; Susanne Kratzer; Andrew Tyler; Yanqun Pan, ACIX-Aqua: A global assessment of atmospheric correction methods for Landsat-8 and Sentinel-2 over lakes, rivers, and coastal waters, Journal: Remote Sensing of Environment, 258 (2021) 112366, 1-22, RSE-D-20-01482R1, 2021.
  652. Kohei Arai, Ground Control Point Generation from Simulated SAR Image Derived from Digital Terrain Model and its Application to Texture Feature Extraction, International Journal of Advanced Computer Science and Applications, Vol. 12, No. 1, 89-94, 2021.
  653. Kohei Arai, Optimum Spatial Resolution of Satellite-based Optical Sensors for Maximizing Classification Performance, Journal of Advanced Computer Science and Applications, Vol. 12, No. 2, 363-369, 2021.
  654. Kohei Arai, Change Detection Method with Multi-temporal Satellite Images based on Wavelet Decomposition and Tiling, Journal of Advanced Computer Science and Applications, Vol. 12, No. 3, 56-61, 2021.
  655. Kohei Arai, Circle Feature Extraction from Remote Sensing Satellite Images Based on Polar Coordinate Representation of Wavelets, FICC 2021: Advances in Information and Communication, Springer, vol.1, pp 558-566, 2021.
  656. Kohei Arai, Yoshiko Hokazono, Method for Most Appropriate Plucking Date Determination based on the Elapsed Days after Sprouting with NIR Reflection from Sentinel-2 Data, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 4, 22-29, 2021
  657. Jilin Men, Kohei Arai, a new AC approach based on neural network for HY-1C CZI data and used in-situ Lwn data from ARIAKE\_TOWER site (period 2019.4-2020.12), Journal of "geo-spatial information science (GSIS)", 2021.
  658. Tran Thi Ngoc Trieua, Isamu Morinoa, Osamu Uchinoa, Yukitomo Tsutsumia, Tetsu Sakaib, Tomohiro Nagaib, Akihiro Yamazakib, Hiroshi Okumurac, Kohei Araic, Kei Shiomid, Dave Pollarde, and Ben Lileye, Influences of aerosols and thin cirrus clouds on GOSAT XCO2 and XCH4 using Total Carbon Column Observing Network, sky radiometer, and lidar data, Journal of Remote Sensing of Environment,
  659. Kohei Arai, Combined Non-parametric and Parametric Classification Method Depending on Normality of PDF of Training Samples, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 5, 310-316, 2021.
  660. Kohei Arai, Method for Determination of Support Length of Daubechies Basis Function for Wavelet MRA based Moving Characteristic Estimation, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 6, 192-200, 2021.
  661. Kohei Arai, Monte Carlo Ray Tracing based Method for Investigation of Multiple Reflection among Trees, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 7, 176-183, 2021.
  662. Kohei Arai, Prediction of Isoflavone Content in Soybeans with Sentinel-2 Optical Sensor Data by Means of Regressive Analysis, Proceedings of SAI Intelligent Systems Conference, IntelliSys 2021: Intelligent Systems and Applications pp 856-865, 2021.
  663. Kohei Arai, Data Hiding Method with Principal Component Analysis and Image Coordinate Conversion, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 8, 25-30, 2021.
  664. Kohei Arai, Meteorological / Natural Environment, Journal of Infrared Society of Japan, 30th

- Anniversary Issue, 31, 1, 111-114, 2021.
665. Kohei Arai, Akifumi Yamashita, Hiroshi Okumura, Head Position and Pose Model and Method for Head Pose Angle Estimation based on Convolution Neural Network, (IJACSA) International Journal of Advanced Computer Science and Applications, Vol. 12, No. 10, 42-49, 2021
  666. Keiyuan Wu\*1, Daisuke Sumiyoshi\*2, Mariko Oda\*1, Kohei Arai\*1, Yosuke Senda\*3, Ryosuke Yasaka\*4, Study of air conditioning energy reduction technology using AI (AI image recognition technology) Detection of the behavior of people in the room and functional performance study of the air conditioning system), Kurume Institute of Technology Bulletin (Research Report), 44, 187-195, 2022.
  667. Kohei Arai, Comparative Study of Flooding Area Detection with SAR Images based on Thresholding and Difference Images Acquired Before and After the Flooding, International Journal of Advanced Computer Science and Applications, Vol. 12, No. 11, 70-78, 2021
  668. Kohei Arai, Gabor Descriptor for Representation of Spatial Feature, International Journal of Advanced Computer Science and Applications, Vol. 12, No. 12, 56-61, 2021
  669. Kohei Arai, Kenta Azuma, Method for Improvement of Ocean Wind Speed Estimation Accuracy by Taking into Account the Relation between Wind Speed and Wind Direction, International Journal of Advanced Computer Science and Applications, Vol. 13, No. 1, 49-57, 2022.
  670. Mariko Oda, Keiyuan Wu, Kohei Arai, Ryosuke Yasaka, Hiroshi Kono, Yasuaki Tatsumi, Richard Lee, A problem-solving AI education program in collaboration with the local community, "Practical PBL initiatives in the "AI Utilization Exercise" selection class," Kurume Institute of Technology Bulletin (Research Report), 44, 145-154, 2022
  671. Tran Thi Ngoc Trieu, Isamu Morino, Osamu Uchino, Yukihiro Tsutsumi, Tetsu Sakai, Tomohiro Nagai, Akihiro Yamazaki, Hiroshi Okumura, Kohei Arai, Kei Shiomi, David F. Pollard & Ben Liley, Influences of aerosols and thin cirrus clouds on GOSAT XCO<sub>2</sub> and XCH<sub>4</sub> using Total Carbon Column Observing Network, sky radiometer, and lidar data, International Journal of Remote Sensing, 2022, VOL. 43, NO. 5, 1770–1799, 2022.
  672. Kohei Arai, Yoshitomo Hideshima, Yuuhi Iwaki, Ryota Ito, Method for Estimation of Oleic Acid Content in Soy Plants using Green Band Data of Sentinel-2/MSI, International Journal of Advanced Computer Science and Applications, 13, 4, 56-63, 2022.
  673. Kohei Arai, Improved ISODATA Clustering Method with Parameter Estimation based on Genetic Algorithm, International Journal of Advanced Computer Science and Applications, 13, 5, 187-193, 2022.
  674. Kohei Arai, Merged Dataset Creation Method Between Thermal Infrared and Microwave Radiometers Onboard Satellites, International Journal of Advanced Computer Science and Applications, 13, 6, 283-288, 2022.
  675. Kohei Arai, Zhang Ming Ming, Ikuya Fujikawa, Yusuke Nakagawa, Tatsuya Momozaki, Sayuri Ogawa, Customer Profiling Method with Big Data based on BDT and Clustering for Sales Prediction, International Journal of Advanced Computer Science and Applications, 13, 7, 22-28, 2022.
  676. Kohei Arai, Ikuya Fujikawa, Yusuke Nakagawa, Tatsuya Momozaki, Sayuri Ogawa, Modified Prophet+Optuna Prediction Method for Sales Estimations, International Journal of Advanced Computer Science and Applications, 13, 8, 58-63, 2022.
  677. Kohei Arai, Wavelet Multi Resolution Analysis based Data Hiding with Scanned Secrete Images, International Journal of Advanced Computer Science and Applications, 13, 9, 393-400, 2022.
  678. Keiyuan Wu\*1, Daisuke Sumiyoshi\*2, Taiga Haruta\*3, Mariko Oda\*4, Yosuke Senda\*4 Ryosuke Yasaka\*5, Kohei Arai\*1, Energy reduction technology for buildings using AI detection and image processing Study of Kurume Institute of Technology Bulletin (Research Report), 45, 187-195, 2023.
  679. Kohei Arai, Yoshiko Hokazono, Method for Determination of Tealeaf Plucking Date with Cumulative Air Temperature: CAT and Photosynthetically Active Radiation: PAR, International Journal of Advanced Computer Science and Applications, 13, 10, 939-944, 2022.
  680. Keiyuan Wu, Yutaka Matsumoto, Minoru Shimazoe, Mariko Oda, Ryosuke Yasaka, Kohei Arai, Research on ultimate shear strength evaluation of RC columns with side walls on one side (Part 2: Crack detection and length calculation method using image processing) Review), Kurume Institute of Technology Bulletin (Research Report), 45,,2023.
  681. Minoru Shimazoe\*1, Kohei Arai\*2, Mariko Oda\*2,3, and Kazumoto Kure, Kurume Kasuri pattern shift classification using convolutional neural networks (influence of different number of training samples on classification accuracy), Kurume Institute of Technology Bulletin (Research Report), 45,,2023.
  682. Taiga Haruta\*1, Mariko Oda\*2\*3, Daiki Ishigaki\*3\*4, Kohei Arai, Concentration estimation method for learning support for intellectually disabled children using skeletal detection technology, Bulletin of Kurume Institute of Technology (Research Report), 45,,2023
  683. Taiga Haruta1, Mariko Oda2, Kohei Arai3, Emotion Estimation Method with Mel-frequency Spectrum, Voice Power Level and Pitch Frequency of Human Voices through CNN Learning Processes, International Journal of Advanced Computer Science and Applications, 13, 11, 215-220, 2022.
  684. Jin Shimazoe1, Kohei Arai2, Mariko Oda3, Jewon Oh, Method for 1/f Fluctuation Component

- Extraction from Images and Its Application to Improve Kurume Kasuri Quality Estimation, *International Journal of Advanced Computer Science and Applications*, 13, 11, 465-471, 2022.
685. Kohei Arai, Ikuya Fujikawa, Yusuke Nakagawa, Ryuya Momozaki, Sayuri Ogawa, Churn Customer Estimation Method based on LightGBM for Improving Sales, *International Journal of Advanced Computer Science and Applications*, 14, 2, 119-125, 2023.
686. Kohei Arai, Yushin Nakaoka, Osamu Fukuda<sup>1</sup>, Nobuhiko Yamaguchi<sup>1</sup>, Wen Liang Yeoh and Hiroshi Okumura, Method for Frequent High Resolution of Optical Sensor Image Acquisition Using Satellite-Based SAR Image for Disaster Mitigation, *International Journal of Advanced Computer Science and Applications*, 14, 3, 119-125, 2023.
687. Aulia Akhrian Syahidi Kohei Arai, Wearable Technology Application for Banjar Language Translator to Support Ease of Communication, *Special Issue On Innovation In Computing, Engineering Science & Technology, ASTES Journal* 2023.
688. Kohei Arai, Nonlinear Merge and Split Based Image Clustering Method Through Changing the Number of Clusters. In: Kohei Arai. (eds) *Advances in Information and Communication. FICC 2023. Lecture Notes in Networks and Systems*, vol 651. Springer, Cham. [https://doi.org/10.1007/978-3-031-28076-4\\_30](https://doi.org/10.1007/978-3-031-28076-4_30), 2023.
689. Kohei Arai, Method for Training and White Boxing DL, BDT, Random Forest and Mind Maps Based on GNN, *Appl. Sci.* 2023, 13, 4743. <https://doi.org/10.3390/app13084743/>, 2023.
690. Mustika Mentari, Rosa Andrie Asmara, Kohei Arai, Haidar Sakti Oktafiansyah:, "Detection Objects Using Haar Cascade for Counting Number of Humans Implemented in OpenMV", *Jurnal Ilmiah Teknologi Sistem Informasi* on Volume 9 Issue 2 July 2023.
691. Kohei Arai, Ikuya Fujikawa, Yusuke Nakagawa, Ryoya Momozaki, Sayuri Ogawa, Method for Characterization of Customer Churn Based on LightGBM and Experimental Approach for Mitigation of Churn, *International Journal of Advanced Computer Science and Applications*, Vol. 14, No. 6, 112-118, 2023.
692. Osamu Uchino<sup>1,2</sup>, Tetsu Sakai<sup>1</sup>, Isamu Morino<sup>2</sup>, Tomohiro Nagai<sup>1</sup>, Hiroshi Okumura<sup>3</sup>, Yoshitaka Jin<sup>2</sup>, Atsushi Ugajin<sup>2</sup>, Tomoaki Nishizawa<sup>2</sup>, Atsushi Shimizu<sup>2</sup>, Tsuneo Matsunaga<sup>2</sup>, and Kohei Arai<sup>3</sup>, Decadal (2011–2020) stratospheric aerosol variability observed by lidar over Saga, Japan, *Journal of the Laser Sensing Society*, 2023.
693. Kohei Arai, Michihiro Mikamo, Shunsuke Onishi, Method for Image Quality Evaluation of Satellite-based SAR Data, *International Journal of Advanced Computer Science and Applications*, 14,7, 119-126, 2023.
694. Rosa Andrie Asmara, M. Rahmat Samudra, Dimas Wahyu Wibowo, M.A. Burhanuddin, Anik Nur Handayani, Faradilla Ayu Damayanti, Kohei Arai, "YOLO-based Automatic Target Aimbot in First Person Shooter Games" to *Bulletin of Electrical Engineering and Informatics*, a Scopus (Elsevier)/ScimagoJR indexed journal, CiteScore: 2.2, SJR: 0.357, and SNIP: 0.730.
695. Kohei Arai, Earth Observation Satellite: Big Data Retrieval Method with Fuzzy Expression of Geophysical Parameters and Spatial Features, *International Journal of Advanced Computer Science and Applications*, 14,8, 227-234, 2023.
696. Kohei Arai, Jin Shimazoe, Mariko Oda, Method for Hyperparameter Tuning of Image Classification with PyCaret, *International Journal of Advanced Computer Science and Applications*, Vol. 14, No. 9, 276-282, 2023.
697. Osamu Uchino, Tetsu Sakai, Isamu Morino, Tomohiro Nagai, Hiroshi Okumura, Yoshitaka Jin, Atsushi Ugajin, Tomoaki Nishizawa, Atsushi Shimizu, Tsuneo Matsunaga, and Kohei Arai, LRSJ-2023-002, Decadal (2011-2020) stratospheric aerosol variability observed by lidar over Saga, Japan
698. Jin Shimazoe, Kohei Arai, Mari Oda, Method for Hyperparameter Tuning of EfficientNetV2-based Image Classification by Deliberately Modifying of Optuna Tuned Result, *International Journal of Advanced Computer Science and Applications*, Vol. 14, No. 12, 276-282, 2023.
699. Oh Jeown, Kohei Arai, Yotaka Matsumoto, Development of crack detection and crack length calculation method using image processing, *International Journal of Advanced Computer Science and Applications*, Vol. 14, No. 12, 276-282, 2023.
700. Yuya Ifuku<sup>1</sup>, Hitoshi Sawada<sup>1</sup>, Ryosuke Yasaka<sup>2</sup>, Kohei Arai<sup>3</sup>, Mariko Oda, Recognition of the number of agricultural crops using an object detection model, *Kurume Institute of Technology Bulletin (Research Report)*, 44,145-154,2024 .
701. Mariko Oda<sup>1\*2</sup>, Yuya Ifuku<sup>1</sup>, Hirohiro Beppu<sup>1</sup>, Kodai Nokoshi<sup>1</sup>, Kohei Arai, Utilization of AI to improve safety at construction sites, *Bulletin of Kurume Institute of Technology (research report)* , 44,145-154,2024.
702. Rosa Andrie Asmara<sup>1</sup>, M. Rahmat Samudra A.<sup>2</sup>, Dimas Wahyu W.<sup>3</sup>, Kohei Arai<sup>4</sup>, M.A. Burhanuddin<sup>5</sup>, Anik Nur Handayani<sup>6</sup>, Farradila Ayu Damayanti<sup>7</sup>, YOLO-Based Object Detection Performance Evaluation for Automatic Target Aimbot in First-Person Shooter Games, *Bulletin of Electrical Engineering and Informatics*, Vol. 99, No. 1, Month 2099, pp. 1~14, ISSN: 2302-9285, DOI: 10.11591/eei.v99i1.paperID, 2024.

703. Kohei Arai<sup>1</sup>, Yasunori Terayama<sup>2</sup>, Masao Moriyama<sup>3</sup>, Category Decomposition-based Within Pixel Information Retrieval Method and its Application to Partial Cloud Extraction from Satellite Imagery Pixels, *International Journal of Advanced Computer Science and Applications*, Vol. 15, No. 1, 307-314, 2024
704. Kohei Arai<sup>1</sup>, Ikuya Fujikawa<sup>2</sup>, Yusuke Nakagawa<sup>3</sup>, Sayuri Ogawa<sup>4</sup>, Method for Predictive Trend Analytics with SNS Information for Marketing, *International Journal of Advanced Computer Science and Applications*, Vol. 15, No. 2, 419-425, 2024
- 705.

### ***1. Refreed Conference Papers***

1. Y. Yasuda and Kohei Arai, Facsimile data compression by rearranging picture elements, Proc.of the 7th Picture Coding Symposium, S405, 45-46,1977.
2. K.Tsuchiya, and Kohei Arai, Some studies on GCP selection process and its accuracy, Proc.of the 2nd Australasian Conference on Remote Sensing, 6-14-1-6.14.6, 1980.
3. K.Tsuchiya and Kohei Arai, Effects on GCP success rate, Proc.of the 7th Canadian Symposium on Remote Sensing, No.17, 497-501, 1980.
4. K.Tsuchiya, Kohei Arai, F.Komura, K.Honma, S.Yamagata and H.Ohta, Instrumentation for high precision preprocessing of remotely sensed data, Proc.of the ISPRS, Commission II-4, 1-12, 1982.
5. K.Tsuchiya, Kohei Arai, and T.Tanaka, Experiment on GCP matching, Proc.of the ISPRS Commission II-3, and 4, B-18, 9-16 1983.
6. Kohei Arai, and C.Ishida, On a verification of Marine Observation Satellite(MOS-1), Proc.of the 8th Canadian Symposium on Remote Sensing, No.991, 815-822, 1983.
7. K.Tsuchiya, K.Kokubo, Kohei Arai, and C.Ishida, Study on local natural environment by multi observations, Proc.of the 17th International Symposium on Remote Sensing of Environment, 1-8, 1983.
8. K.Tsuchiya, Kohei Arai, F.Kumura, K.Honma, and S.Yamagata, Experiments on resampling of local unequally spaced RS data and relative radiometric correction of linear array sensor data, Proc.of the 17th International Symposium on Remote Sensing of Environment, 9-16, 1983.
9. Kohei Arai, C.Ishida and H.Wakabayashi, MOS-1 verification experiments Proc.of the ISPRS Commission II-3, and 4, B-18, 1-8, 1983.
10. Kohei Arai, Consideration on an optimum spatial resolution of the multispectral scanner, Proc.of the 3rd Australasian Conference on Remote Sensing,645-656, 1984.
11. Kohei Arai, T.Igarashi and C.Ishida, Some results on field experiments in Marine Observation Satellite-1 verification program, Proc.of the ISTS, m-1-1, 1253-1261, 1984.
12. K.Tsuchiya Kohei Arai and T.Tanaka, Studies on GCP matching of remote sensing imagery data, Proc.of the ISTS, m-3-2,1321-1328, 1984.
13. Kohei Arai, Study on an improvement of geometric accuracy of Landsat imagery by modifybaraking attitude determination program, Proc.of the ISTS, m-3-3, 1329-1336, 1984.
14. K.Tsuchiya, K.Maeda, Kohei Arai, H.Nakamura and C.Ishida, Method of noise reduction in passive remote sensing, Proc.of the International Symposium on Noise and Clutter Rejection, 1-8, 1984.
15. Kohei Arai, T.Igarashi and C.Ishida, Evaluation of MOS-1 Microwave Scanning Radiometer(MSR) data in field experiments, Proc.Of the 18th International Symposium on Remote Sensing of Environment, 1-8, 1984.
16. Kohei Arai, Programme for development of earth observation satellites, Proc.of the Federation of International Geodesy, 1-8, 1984.
17. Kohei Arai, T.Igarashi anf Y.Takagi, Emissivity model of snowpack for passive microwave observations, Proc. of the 36th International Astronautics Federation(IAF) Congress, IAF-85-98, 1-8, 1985.
18. Kohei Arai, Consideration on an optimum spatial resolution for multispectral classification, Proc. of the 36th International Astronautics Federation(IAF) Congress, IAF-85-104, 1-8, 1985.
19. Kohei Arai, D.G.Goodenough, J.Iisaka, K.Fuang and M.Robson, Consideration on an optimum threshold for maximum likelihood classification, Proc.of the 10th Canadian Symposium on Remote Sensing, 1-8, 1986.
20. D.G.Goodenough, J.Iisaka and Kohei Arai, On the classification of TM data, Proc.of the 10th Canadian Symposium on Remote Sensing, 9-16 1986.
21. Kohei Arai, Study on classification methodology for high spatial resolution of images, Technical Report to the Canada Center for Remote Sensing as a post doctoral fellow of Natural Science and Engineering Council of Canada,1987.
22. Kohei Arai, D.G.Goodenough, J.Iisaka and B.Guindon, Multitemporal analysis of texture measures for TM classification, Proc.of the IGARSS'87, 117-118, 1987.

23. Kohei Arai, D.G.Goodenough, and J.Iisaka, Purification of training samples for supervised TM classification, Proc.of the 11th Canadian Symposium on Remote Sensing, 1-8, 1987.
24. Kohei Arai, D.G.Goodenough, B.Guindon, and J.Iisaka, Effect of pixel-to-pixel correlation on TM classification, Proc.of the 11th Canadian Symposium on Remote Sensing, 9-16, 1987.
25. Koizumi and Kohei Arai, Future program on remote sensing satellite in Japan, Advanced Earth Observing Satellite:ADEOS, Proc.of the International Space Year Conference, 1-8, 1987.
26. Kohei Arai, S.Koizumi, K.Ayabe, H.Satoh, S.Yamamoto, T.Nakazawa, K.Tachi, N.Fujimoto, K.Tsuchiya and R.Tateishi, Studies on sytems performace of SPOT-01, Proc.of the International Conference on SPOT-1 Image Utilization, Assessment, Results, No.291, 1-8, 1987.
27. Kohei Arai, Local area network and data network for the Advanced Earth Observing Satellite(ADEOS) system, Proc.of the ISPRS Symposium, 1-8, 1988.
28. Kohei Arai, N.Fujimoto, H.Satoh and S.Koizumi, Terrain height estimation using HRV stereo pair, Proc.of the ISPRS Symposium, 9-16, 1988.
29. T.Tanaka, S.Miida, Y.Suzuki, T.Tanioka, H.Satoh, and Kohei Arai, Technical conditions for large volume data handling on feature earth observation ground system, Proc.of the ISPRS Symposium, 17-24, 1988.
30. H.Satoh, K.Maeda and Kohei Arai, Transformation matrix for study and evaluation of projection aspect of earth observation areas, Proc.of the ISPRS Symposium, 25-32, 1988.
31. Kohei Arai, and N.Fujimoto, GCP acquisition using simulated SAR derived from DEM, Proc.of the ISPRS Symposium, 33-40, 1988.
32. Kohei Arai, Plan for the ground segment of the ADEOS system, Proc.of the 16th International Space-science and Technology Symposium(ISTS), q2-2, 1-8, 1988.
33. S.Koizumi, H.Satoh,Kohei Arai, N.Fujimoto, K.Tsuchiya and R.Tateishi, Studies on the performance of SPOT-1/HRV based on Imageries, Proc.of the 16th International Space-science and Technology Symposium(ISTS), q1-7, 9-16, 1988..
34. Kohei Arai, Mission requirements for ADEOS satellite system, Proc.of the 16th International Space-science and Technology Symposium(ISTS), q2-1, 17-24, 1988.
35. Kohei Arai, Requirements for ADEOS orbit, orbit/attitude control accuracy and rate jitter, Proc.of the IGARSS'88, 183-186, 1988.
36. Kohei Arai, N.Fujimoto, K.Tsuchiya, and R.Tateishi, Terrain height estimation based on stereoscopic pair images of SPOT-1/HRV, Proc.of the 27th COSPAR Congress, 109-114, 1988.
37. K.Tsuchiya, Kohei Arai, and T.Igarashi, Present status and future plans of Japanese earth observation satellite program, Proc.of the 27th COSPAR Congress, 1-8, 1988.
38. T.Tanaka and Kohei Arai Japan's environmental observation satellite plans for the 1990's, Proc.of the IGARSS'89, G2-1, 122-125, 1989.
39. Kohei Arai and T.Suzuki, Beam compressed microwave scanning radiometer, Proc.of the IGARSS'89, I1-2, 268-270, 1989.
40. Y.Itoh, K.Tachi, Y.Sato and Kohei Arai, Advanced Microwave Scanning Radiometer: AMSR, Preliminary study, Proc.of the IGARSS'89, I1-4, 273-276, 1989.
41. Kohei Arai, Data compression for archiving of ADEOS data, Proc.of the IGARSS'89, D3-5, 914-918, 1989.
42. Kohei Arai, Present status of MOS-1 and its operation history, Proc.of the IGARSS'89, zg3-1, 969-973, 1989.
43. Y.Muklai, T.Sugimura and Kohei Arai, Automated generation of digital elevation model using system corrected SPOT data, Proc.of the 23rd International Symposium on Remote Sensing of Environment, 1-8, 1990.
44. Kohei Arai and K.Cho, TM classification based on a multi-temporal analysis of texture features, Proc.of the ISPRS, Commission VII, WG-VI, 1-8, 1990.
45. Kohei Arai and T.Moriyama, Preliminary study on mission requirements to the Japanese Polar Platform(JPOP), Proc.of the 17th ISTS, Session R2-3, 1-8, 1990.
46. Y.Mukai, T.Sugimura and Kohei Arai, Generation of DEM using system corrected SPOT data, Proc.of the ISPRS Commission IV, 1-8, 1990.
47. Kohei Arai, Merged dataset with MOS-1/VTIR and NOAA/AVHRR enhancing cloud detectability, Proc.of the 28th COSPAR Congress, MA4-3.1, 1-8, 1990.
48. Kohei Arai, Utilization plans for ADEOS core sensors, AVNIR and OCTS, Proc.of the 13th Canadian Symposium on Remote Sensing, C-3, 1-8, 1990.
49. Kohei Arai and Y.Terayama, Method for proportion estimation of mixed pixels by means of inversion problem solving, Proc.of the ISPRS Commission VII, WP-1-1, 1990.
50. Kohei Arai, Preliminary study on ADEOS data acquisition plan, Proc.of the 5th Australasian Remote Sensing Conference, 1-8, 1990.
51. Kohei Arai, Y.Terayams and K.Teramoto, Proportion estimation of mixed pixel with previously estimated proportions of neighboring mixels, Proc.of the IGARSS'91, 313-316, 1991.

52. K.Teramoto, H.Kano and Kohei Arai, Real-time exact inverse problem solving in holographic borehole monitoring, Proc.of the International Union of Radio Science Symposium, 1991.
53. Kohei Arai, H.Watanabe, T.Tagawa and J.Komai, Digital Elevation Model: DEM accuracy assessment for advanced spaceborne thermal emission and reflection radiometer(ASTER) to be onboard EOS-a platform, Proc.of the International Symposium on Photogrametry and Remote Sensing(ISPRS) WG-IV and OEEPE Joint Conference, 1-8, 1991.
54. Kohei Arai, Assessment of height estimation accuracy with EOS-a/ASTER, Proc.of the Spatial Data 2000 Conefernce, 73-75, 1991.
55. Kohei Arai, Estimation of partial cloud coverage within a pixel, Proc.of the Pre-ISY International Symposium, 99-106, 1991.
56. Kohei Arai, Sea surface temperature estimation taking into account partial cloud within a pixel, Proc.of the ISY conference on Earth and Space Information Systems, 10/13, 1992.
57. Kohei Arai, S.Mukai, H.Watanabe, M.Tsukada and T.Tagawa, Influence due to satellite attitude jitter on estimation of Digital Elevation Model: DEM, Proc.of the European ISY Conference, 299-304, 1992.
58. Kohei Arai, Y.Ueda and Y.Terayama, Comparative study on estimation of partial cloud coverage within a pixel ?Proposed adaptive least square method with constraints- Proc.of the European ISY Conference, 305/310, 1992.
59. Kohei Arai, K.Teramoto and T.Imatani, Influence due to antenna pattern changes in brightness temperature estimation for a space based microwave radiometer, Proc.of the European ISY Conference, 311-316, 1992.
60. Kohei Arai, Y.Terayama, H.Watanabe, T.Tagawa and J.Komai, Considerat5ion of attitude jitter on Digital Elevation Model: DEM estimation with EOS-AM1/ASTER, Proc.of the ISPRS Committee-VII, TS-47-2, 1992.
61. Kohei Arai, M.Ozawa and Y.Terayama, Optimum forward looking angle for stereoscopic view taking into account steepness of the terrain based on an auto-regressive model, Proc.of the ISPRS Committee-I, PS-4-1, 1992.
62. Kohei Arai, S.Mukai and Y.Terayama, Effect of planimetric correction with a few GCPs on terrain height estimation with stereo pair, Proc.of the ISPRS Committee-IV, PS-5-5, 1992.
63. Y.Terayama Y.Ueda and Kohei Arai, Comparative study on the methods for estimation of mixing ratio within a pixel, Proc.of the ISPRS Committee-VII, TS-28-4, 1992.
64. M.Matsumoto, Y.Terayama and Kohei Arai, Maximum likelihood estimation of category proportion among mixels, Proc.of the ISPRS Committee-III, PS-6-8, 1992.
65. M.Matsumoto, Y.Terayama and Kohei Arai, Image classification from category proportions among mixels, Proc.of the ISPRS Committee-VII, PS-9-15, 1992.
66. Kohei Arai, A.Ono and Y.Yamaguchi, Possibility of cross calibration between EOS-AM1/MODIS and ASTER/TIR, Proc.of the 29th COSPAR Congress, A.8-M-3.04, 1992.
67. Kohei Arai, K.Teramoto and M.Matsumoto, Spatial resolution enhancement by means of inversion Proc.of the 29th COSPAR Congress, A.8-M-3.04, 1992.
68. Kohei Arai, Inversion techniques for proportion estimation of mixels in high spatial resolution of satellite image, Proc.of the 29th COSPAR Congress, A.8-M-3.09, Solicited paper 1992.
69. M.Matsumoto and Kohei Arai, Inversion for emissivity-temperature separation with ASTER data, Proc.of the 29th COSPAR Congress, A.4-M-4.05, 1992.
70. M.Matsumoto, Kohei Arai, T.Ishimatsu, Decomposition of category mixture in a pixel and its application for supervised image classification, Proc.of the KACC'92, 514-519, 1992.
71. Kohei Arai, SST estimation of the pixels partially contaminated with cloud, Proc.of the Asian-Pacific ISY(International Space Year) Conference, 1992.
72. Kohei Arai, Post-launch calibration of ASTER with MODIS data, Proc.of the 3rd Annual Infrared Calibration Symposium, 1992.
73. Kohei Arai, Methods for calibration of ADEOS/AVNIR, Proc.of the Asian-Pacific ISY(International Space Year) Conference, 1992.
74. H.Wakabayashi and Kohei Arai, Speckle noise removal of SAR images with Digital Elevation Model: DEM, Proc. of the 5th ISCOPS Symposium, 1993.
75. M.Matsumoto and Kohei Arai, Interactive estimation of sea surface temperature, Proc. of the 5th ISCOPS Symposium, 1993.
76. Kohei Arai, Y.Terayama and Gengoromaru, Corresponding point matching between stereo pair with DP matching, Proc. of the 5th ISCOPS Symposium, 1993.
77. Kohei Arai, Y.Terayama and H.Nakamura, Comparative study on interporation methods for Digital Elevation Model: DEM, Proc.of the IGARSS'93, 1975-1977, 1993.
78. K.Teramoto, Kohei Arai and T.Imatani, Evaluation of the performance of antenna pattern correction under the influence of unknown antenna pattern changes, Proc.of the IGARSS'93, 1805-1807, 1993.

79. Kohei Arai, Y.Terayama, H.Uchida and M.Moriyama, Spatial resolution enhancement with constraint least square method, Proc.of the IGARSS'93, 1693-1695, 1993.
80. Kohei Arai, S.Sobue and H.Etoh, Browsing system for ADEOS/AVNIR and OCTS, Proc.of the IGARSS'93, 1509-1511, 1993.
81. Kohei Arai, A.Ono, and Y.Yamaguchi, Accuracy assessment of the interactive calibration of ASTER/TIR with MODIS, Proc.of the IGARSS'93, 1303-1305, 1993.
82. M.Matsumoto and Kohei Arai, Some ideas for interactive estimation of atmospheric condition, surface temperature and emissivity, Proc.of the IGARSS'93, 1291-1293, 1993.
83. M.Matsumoto and Kohei Arai, Simplified expression of the radiative transfer equation in thermal infrared window spectrum, Proc.of the IGARSS'93, 673-675, 1993.
84. Kohei Arai and M.Matsumoto, SST estimation with ADEOS/OCTS data, Proc.of the 4th Annual Japan-US Workshop on Ocean Color, 1993.
85. Kohei Arai, T.Yamasaki and Y.Terayama Method for image compression with a cosmetic restoration, Proc.of the Australasian Conference on Remote Sensing, 1993.
86. M.Moriyama and Kohei Arai, Iterative estimation of the earth surface temperature and emissivity, Proc.of the 30th COSPAR Congress, A1-019, 1993.
87. M.Moriyama, K.Mima and Kohei Arai, Comparison of the sea surface temperature estimation methods, Proc.of the 30th COSPAR Congress, A1-044, 1993.
88. Kohei Arai, Calibration/Intercalibration of multi-sensor onboard satellites, Proc.of the 30th COSPAR Congress, A3.1-002, 1993.
89. Kohei Arai, E.Ishiyama and Y.Terayama, Method for ice concentration estimation with microwave scanning radiometer data by means of inversion, Proc.of the 30th COSPAR Congress, A3.1-032, 1993.
90. Arai,K., T.Yamasaki and Y.Terayama, A method for image compression with cosmetic restoration, Proceedings of the 9th Australasian Conference on Remote Sensing, Mar.1994.
91. Arai,K. and K.Aonashi, Rain flagging for ADEOS/NSCAT with DMSP/SSM/I data, Proceedings of the US-Japan NSCAT Science Team Workshop, June 1994.
92. Moriyama,M. and Kohei Arai, Interactive estimation of the Earth surface temperature and emissivity, Proceedings of the 30th COSPAR Symposium A1-019, July 1994.
93. Moriyama,M., K.Mima and Kohei Arai, Comparison of the sea surface temperature estimation methods, Proceedings of the 30th COSPAR Symposium, A1-044, July 1994.
94. Arai,K., Calibration /intercalibration of multi-sensor for satellites, Proceedings of the 30th COSPAR Symposium, A31-002, July 1994.
95. Arai,K., E.Ishiyama and Y.Terayama, A method for ice concentration estimation with microwave radiometer data by means of inversion techniques, Proceedings of the 30th COSPAR Symposium,.., A31-032, 1994
96. Arai,K., A method for surface temperature retrieval with ASTER/TIR, Proceedings of the IGARSS'94 Symposium MP.CP.01, Aug. 1994.
97. Arai,K., M.Ozawa and Y.Terayama, Optimization method for B/H ratio determination taking occlusion effect and MTF degradation due to atmosphere into account, Proceedings of the IGARSS'94 Symposium, Th.I2.05,Aug. 1994
98. Sakuma,F.,A.Ono and Kohei Arai, Radiometric calibration techniques for ASTER, Proceedings of the European Symposium on Satellite Remote Sensing, Sep.,1994.
99. Satoh,I., K.Fukue and Kohei Arai, Basic concept and development of ASTER data processing system, Proceedings of the European Symposium on Satellite Remote Sensing, Sep.,1994.
100. Arai, K., Mission requirements and a precursor project for WEDOS program, Proceedings of the Japan-US conference on Space Cooperative Projects, Nov.,1994.
101. Arai, K., New algorithms for ice concentration estimation with passive microwave data, Proceedings of the 1st ADEOS-II Science Symposium, Nov., 1994.
102. Arai, K. and K.Aonashi, Rain flagging algorithm for ADEOS/NSCAT, Proceedings of the 1st ADEOS Symposium, Dec., 1994.
103. Arai, K., Calibration plan for ADEOS/AVNIR, Proceedings of the 1st ADEOS Symposium, Dec., 1994.
104. Masao Moriyama, Yoko Ueda, Yasunori Terayama, Kohei Arai, Basic research for automatic cloud classification using satellite data, Japan Meteorological Society, Kyushu Branch Conference, March 1994, 1994.
105. R.Hoffman, F.Wentz, D.Long and Kohei Arai, Atmospheric losses at 14GHz, NSCAT SWT/Attenuation Sub-Group Report, p.10, Sep., 1994.
106. Shinichi Sobue, Kohei Arai, Fumiyoshi Yoshida, Scientific conferencing using earth observation satellite data, Information Processing Society of Japan, Multimedia Communication and Distributed Processing Workshop, pp.299-305, October 1994, 1994



107. Kohei Arai, Eiji Ishiyama, Yasunori Terayama, Estimation of ice density based on inverse problem solving method, Society of Instrument and Control Engineers, 20th Remote Sensing Symposium, pp. 75 - 78, Oct., 1994.
108. Shinichi Sobue, Kohei Arai, Fumiya Yoshida, User-friendly and highly efficient catalog information management of earth observation data, Information Processing Society of Japan, Advanced Database Workshop, pp. 111 - 116, December 1994, 1994.
109. Kohei Arai, Proposal of ice density estimation method using SSM/I data, Okhotsk Snow and Ice Symposium, December 1994, 1994.
110. Kohei Arai, Yasunori Terayama, Tsuyoshi Arata, Hiroyuki Wakabayashi, Masao Moriyama, SAR image classification considering the distribution of texture features, JERS-1 Verification Results Report, published by Japan National Space Agency, 1995.
111. Arai,K., Y.Terayama,T.Arata and M.Moriyama, Maximum Likelihood Classification adapting likelihood function to the original distribution, Proceeding of the International Geoscience and Remote Sensing Symposium, IGARSS'95, Florence,July 1995.
112. K.Teramoto, Kohei Arai and T.Imatani, Antenna Pattern Correction for Microwave Radiometry Using A Prior Knowledge Based on Projection Convex Sets Method, Proceeding of the International Geoscience and Remote Sensing Symposium, IGARSS'95, Florence,July 1995.
113. Arai,K., A Review on Current Earth Observation Data and Information Systems, Proceedings of the Expert Advisory Group Conference, United Nation Environmental Program, Nairobi, Nov. 1995.
114. Arai,K., Detecting Algorithm for Rainfall Area Movement based on Kalman Filtering, Proceedings of the NSAT/SWT Symposium, Kyoto, Nov. 1995.
115. Kohei Arai, Active Cavity Radiometer for Earth Environment Observation Satellite, O+E, No.185, pp.102 - 106, Apr.,1995.
116. Kohei Arai, William Emery, Analysis of El Niño phenomena using earth observation satellite data, Global Observation International Network, Demonstration and Symposium, Tokyo, June 1995.
117. Arai, K., A consideration on networking for catalog and browsing system Proc. of the CEOS/WGD/NS, Ames Research Center, NASA, Sep.,1995.
118. Arai, K., Present Status for Disaster Observation Systems Working Group, Proc. of the 5th Japan-US Space Research Cooperation Conference, Hawaii, Nov. 1995.
119. Arai, K., Current Activities for Network Sub-Group Proc. of the 1st CEOS/WGISS Group, Moscow, Nov. 1995.
120. Kohei Arai, Evaluation of ice density estimation accuracy using SAR as truth data, Okhotsk Sea Ice Program Workshop using Satellite, Tokyo, Dec., 1995.
121. Kohei Arai, International Geoscience and Remote Sensing Symposium, IGARSS'95 10 - 14 July 1995 Florence, Italy
122. Arai,K. and Y.Terayama, MTF degradation due to atmosphere, Technical Digest of Optical Remote Sensing of the atmosphere, p.160/ TUSC 28-1, Utah State Univ.,Feb.,1995.
123. Arai,K. and Y.Terayama, SAR image classification based on Maximum Likelihood Decision rule with texture features taking into account a fitness to the probability density function, Final Report of JERS-1/ERS-1 System Verification Program, J2, vol.II, pp.2-415 to 424, Munich, Mar., 1995.
124. S. Sobue, K.Cho and Kohei Arai, A Study of Data Lossy Compression Using JPEG/DCT and Fractal Method, Proceedings of the ISTS Symposium in Gifu, May 1996.
125. K.Teramoto and Kohei Arai, POCS Based Array Processing in Incoherent Microwave Radiometric Image Reconstruction, Proceedings of the ICASSP'96, SSAP#615, Atlanta, May 1996.
126. H.Wakabayashi and Kohei Arai, A New Method for SAR Speckle Noise Reduction(Chi-Square Test Filter), Canadian journal of Remote Sensing, Vol.22, No.2, pp.190-197, June 1996.
127. Kohei Arai, DEM Estimation with Simulated Annealing Based on Surface Reconstruction Method, Proceedings of the ISPRS Commission III, #80026, Vinne, July 1996.
128. Kohei Arai, Inflight Test Site Cross Calibration Between Mission Instruments Onboard Same Platform, Proceedings of the COSPAR Conference, A0.3-0004, July 1996.
129. Kohei Arai, Application of Inversion Theory for Image Analysis and Classification, Proceedings of the 31th COSPAR Conference, A1.2-0015, July 1996.
130. Kohei Arai, S.Tsuchida and Kurt Thome, Calibration Plan and Preliminary Field Campaign for ASTER, Proceedings of the European Symposium on Satellite Remote Sensing III, EUROPT, SPIE, Sep. 1996.
131. Kohei Arai, Radiometric Calibration for Level 1 Products of ASTER, Proc. of the EOS Validation Workshop, 1996.
132. 133. Kohei Arai, Estimation of heat flux from open water surface, Proceedings of the Okhotsk Sea Ice Research Workshop, 1996.
133. Kohei Arai, Network Security Issues for CEOS, Proc. of the CEOS/WGISS and NS/CS workshop, 1996.

134. Kohei Arai, Rain Flagging for ADEOS/NSCAT with OCTS, Proc. of the NSCAT Science Workshop, 1996.
135. Kohei Arai, Preliminary results from the field experiments at NIST area, Proc. of the SIRREX-V Workshop, 1996.
136. Kohei Arai, Four Dimensional GIS and Its Application to Disaster Monitoring with Satellite Remote Sensing Data, Proceedings of the Conference on GIS and Application of Remote Sensing to Disaster Management, 132-137(1997)
137. Kohei Arai, An Overview of the Cross Calibration and Validation Among the Mission Instruments Onboard ADEOS and the Other Satellites, Proceedings of the 2nd ADEOS Symposium, 899-901(1997)
138. Kohei Arai, Radiometric Calibration Through a Field Campaign, Proceedings of the 2nd ADEOS Symposium, 902-904(1997)
139. Kohei Arai, Cross Validation of OCTS GAC SST with MCSST, Proceedings of the 2nd ADEOS Symposium, 905-907(1997)
140. Kohei Arai, Cross Calibration Between POLDER and OCTS, Proceedings of the 2nd ADEOS Symposium, 908-910(1997)
141. Kohei Arai, Future Works on Cross Calibration and Validation, Proceedings of the 2nd ADEOS Symposium, 911-912(1997)
142. Kohei Arai, Ice Concentration Estimation Based on Local Inversion, Proceedings of the IEEE Geoscience and Remote Sensing Symposium, (1997)
143. S.Sobue and Kohei Arai, NASDA's On-Line User Services, Proceedings of the International Society for Photogrammetry and Remote Sensing Symposium, Commission IV, WG-3, (1997)
144. S.Sobue and Kohei Arai, Metadata Definition and Retrieval of Earth Observation Satellite Data, Proceedings of the IEEE Metadata Conference, (1997)
145. K.Thome, Schiller, Conel, Ledebor, Kohei Arai and S.Tsuchida, Results of the 1996 Joint EOS Vicarious Calibration Campaign in Lunar Lake, Nevada, Proceedings of the NEWRAD Conference, (1997)
146. Kohei Arai, Sensitivity Analysis on Atmospheric Code for Vicarious Calibration of ADEOS/AVNIR, Proceedings of the SPIE(EUROPT) Conference on Atmospheric Sensing, Earth Surface Sensing and Platform/Systems, (1997)
147. Kohei Arai and K.Teramoto, Antenna Pattern Correction and SST Estimation Algorithms for AMSR Proceedings of the AMSR Science Workshop, (1997)
148. Kohei Arai, An Expectation to Remote Sensing for Disaster Management, Proceedings of the United Nations and Japan-US Science/Technology and Space Application Program Joint Symposium on Disaster Management, (1997)
149. Kohei Arai, Rain Flagging with SSM/I Based on Kalman Filtering with New Parameter Estimation, Proceedings of the NSCAT Science Workshop, (1997)
150. Kohei Arai, Estimating sea ice density by local inversion, Proc. Satellite-based Okhotsk sea ice research workshop (1997)
151. Kohei Arai Sensitivity analysis of atmospheric codes for Vicarious Calibration, Proc. Study group on atmosphere and atmospheric correction in satellite remote sensing (Chiba University) (1997)
152. Kohei Arai, The Conference on GIS and Application of Remote Sensing to Disaster Management Four Dimensional GIS and Its Application to Disaster Monitoring with Satellite Remote Sensing Data, Proceedings of the Conference on GIS and Application of Remote Sensing to Disaster Management, 132-137 Greenbelt, Maryland, U.S.A., 1997
153. Kohei Arai, The Current Status on Disaster Monitoring with Satellites in Japan, Proc. of the Committee on Earth Observation Satellites/Working Group on Information Systems and Services/Task Team 19 Meeting, Greenbelt, Maryland, U.S.A., 1997
154. Kohei Arai, NASA Scatterometer Science Workshop on Calibration and Validation Discussions on Rain Flagging Algorithms in the AER Group, Proc. of the NSCAT Science Workshop Hawaii, 1997
155. Kohei Arai, Global Observation Information Network Workshop Global Observation Information Network, Proc. of the GOIN Pre-Meeting NCAR, Boulder, U.S.A., 1997
156. Kohei Arai, Asia Pacific Economic Committee Seminar Panel Discussions on Earth Observation Information Network, Proceedings of the APEC Seminar, Tokyo, 1997
157. Kohei Arai, Present Status on Networking in Japan, Proc. of the Committee on Earth Observation Satellites/Working Group on Information Systems and Services/Network SubGroup Toulouse, France, 1997
158. Kohei Arai, Calibration Methods for ASTER Instrument, Proc. of the Advanced Spaceborne Thermal Emission and Reflection(ASTER) Science Workshop South Dakota, U.S.A., 1997
159. Kohei Arai, Report from Calibration Scientist, Proceedings of the 2nd GLI Symposium Kinugawa, Japan, 1997

160. Kohei Arai, Ice Concentration Estimation Based on Local Inversion IEEE Geoscience and Remote Sensing Society(IGARSS) Symposium'97, 553-555, 1997
161. Kohei Arai, Sensitivity Analysis of the Atmospheric Code for Vicarious Calibration, Proc. Workshop on atmosphere and atmospheric correction in satellite remote sensing, Chiba, Japan, 1997
162. Kohei Arai, Error budget analysis of vicarious calibration of visible to shortwave infrared radiometers onboard satellites, SPIE(European Optical Science) Symposium, London, U.K., 1997
163. Kohei Arai, Asia-Pacific Area Network(APAN), Proc. of the Committee on Earth Observation Satellites/Working Group on Information Systems and Services/Network SubGroup ISPRA, Italy, 1997
164. Kohei Arai, Ice Concentration Retrieval by Means of Local Inversion, Proc. Okhotsk Sea Ice Research Symposium, Tokyo, Japan, 1997
165. Kohei Arai, Status of GLI Calibration, Proceedings of the MODIS Science Team Meeting, Greebelt, Maryland, U.S.A., 1997
166. Kohei Arai, Advanced Microwave Scanning Radiometer(AMSR) Science Workshop Tokyo, Japan, 1997
167. Kohei Arai, Proc. of the Joint Symposium on Disaster Management Between United Nation and Japan-US Science/Technology and Space Application Program, Hawaii, U.S.A., 1997
168. Kohei Arai, Rain Flagging Method, NASA Scatterometer Science Workshop on Calibration and Validation, Hawaii, U.S.A., 1997
169. Kohei Arai and Y.Terayama, Cross Calibration Between ADEOS/AVNIR and OCTS, Proc. of the CERes International Symposium on the Atmospheric Correction of Satellite Data and Its Application to Global Environment, 112-120, 1998
170. Kohei Arai, Current Status of the Cross Calibration and Validation Activities, Proc. of the 3rd Advanced Earth Observing Satellite Symposium, 1998
171. Kohei Arai, Radiometric Cross Calibration Between AVNIR and OCTS at Ivanpah Playa, Proc. of the 3rd Advanced Earth Observing Satellite Symposium, 1998
172. Kohei Arai, Executive Summary and Future Works on Cross Calibration and Validation, Proc. of the 3rd Advanced Earth Observing Satellite Symposium, 1998
173. Kohei Arai, Progress Report on the Cross Calibration and Validation Working Group, Proc. of the 3rd Advanced Earth Observing Satellite Symposium, 1998
174. Kohei Arai, An Expectation on Remote Sensing Technology for Disaster Management and Response, United Nations Proceedings Series, Edt.Y.Ogawa and Kohei Arai, No.28, p.11, 1998
175. Kohei Arai, Rain Flagging for NSCAT with SSM/I Through Gap Filling Based on Kalman Filter, Proc. of the NASA Scatterometer Science Symposium, pp. 161-163, 1998
176. Kohei Arai and Kaname Seto Rain Flagging Method with Kalman Filtering for ADEOS/NSCAT, Proc. of the COSPAR Congress, A0.1-0009, 1998
177. Kohei Arai and Masao Moriyama, SST Estimation Method with Linearized Inversion of Radiative Transfer Code for ADEOS/OCTS, Proc. of the COSPAR Congress, A0.1-0021, 1998
178. Kohei Arai Vicarious Calibration of Low Resolution of Instrument Through Characterization of Test Site with High Resolution Instrument Onboard Same Platform, Proc. of the COSPAR Congress, A0.3-0024, 1998
179. Kohei Arai, Vicarious Calibration of ADEOS/AVNIR and OCTS, Proc. of the COSPAR Congress, A0.3-0023, 1998
180. Kohei Arai and Y.Terayama, Error Budget Analysis of Cross Calibration Method Between ADEOS/AVNIR and OCTS, Proc. of the COSPAR Congress A0.2-0006, 1998
181. Kohei Arai, Preliminary Vicarious Calibration of EOS-AM1/ASTER with Field Campaign, (Solicited Paper) Proc. of the COSPAR Congress, A0.2-0023, 1998
182. Kohei Arai and H.Fukushima, Stray Light Effect Found in ADEOS/OCTS Data -Description of Problem and Its Effect on Estimation of Chlorophyll-a Concentration Proc. of the Ocean Optics XIV, 1998
183. Kohei Arai, Round Robin Test for Global Imager, Proc. of the 3rd GLI Science Workshop, 1998
184. Kohei Arai, Virtual Center for Disaster Management, Proc. of the 2nd United Nation and JUSTSAP Joint Symposium, 1998
185. Kohei Arai Decomposition of SAR Polarization Signatures by Means of Eigen-Space Representation, Proc. of the Synthetic Aperture Radar Workshop '98, 1998
186. Kohei Arai, JICA Trainees are always welcome, RESTEC News Letter, No.32, p.2, 1998
187. Kohei Arai, Opening Remarks of Satellite Based Disaster Management, Proc. of the Disaster Management Workshop in Ihilani Hotel, Hawaii USA, Invited Speech, 1998
188. 189. Kohei Arai, Disaster Monitoring Using Satellites, Bulletin of the Western Regional Division of Scientific Research on Natural Disasters, Collection of Research Papers, No.23, pp.29-34, (1999).

189. Kohei Arai, Disaster related activities, Proceedings of the 1st JUSTSAP-ADRC Joint Symposium on Disaster Management, (1999).
190. Kohei Arai, Internet GIS and Disaster Information Clearing House, Proceedings of the 1st JUSTSAP-ADRC Joint Symposium on Disaster Management, (1999).
191. Kohei Arai, Cross calibration and validation for ADEOS-II project, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
192. Kohei Arai, Round Robin Test for GLI instrument, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
193. Kohei Arai, Current Status of the ADEOS Cross Calibration and Validation, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
194. Kohei Arai, NEdR evaluation by means of cross calibration between AVNIR and OCTS, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
195. Kohei Arai, Ghosting on OCTS through cross calibration between OCTS and POLDER, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
196. Kohei Arai, A new approach of cross calibration between AVNIR and OCTS, Proceedings of the 1st ADEOS/ADEOS-II Joint Symposium, (1999)
197. T.Takashima, K.Masuda and Kohei Arai, Measurement of Skylight Polarization with Surface Reflectance over Railroad Valley, Nevada, Papers in Meteorological Geophysics, Vol.50, No.3, pp.113-124, 1999.
198. Kohei Arai, Opening address of the disaster management symposium, United nations Center for Regional Deveelopment Proceedings, No.34, pp.9-12, (1999)
199. Kohei Arai, Virtual center for disaster management, United nations Center for Regional Deveelopment Proceedings, No.34, pp.33-38, (1999)
200. Kohei Arai, Joint Research on Disaster Management, Proceedings of the United Nations, Center for Regional Development, UNCRD Headquater, Nagoya, 7 Jan., 1999
201. Kohei Arai, Error budget analysis on a proposed vicarious calibration method with on-site calibration, Proceedings of the AVIRIS Earth Science and Applications Workshop, NASA/JPL, CA, USA, Feb.23, (2000).
202. Kohei Arai, A reflectance based vicarious calibration of solar reflection bands of sensors onboard satellites with on-site calibration of ground based instruments, Abstracts of the 33rd COSPAR Scientific Assembly, A0.2-0002, Warsaw, Poland, July 16-23, (2000).
203. Kohei Arai, Round Robin Test of Global Imager (GLI) to be onboard ADEOS-II satellite, Abstracts of the 33rd COSPAR Scientific Assembly, A0.2-0012, Warsaw, Poland, July 16-23, (2000).
204. Kohei Arai, A preliminary results from the vicarious calibration of ASTER/SWIR onboard the Terra satellite, Abstracts of the 33rd COSPAR Scientific Assembly, A0.2-0016, Warsaw, Poland, July 16-23, (2000).
205. Kohei Arai, Adjacency effect due to a box type of 3D clouds estimated with Monte Carlo simulation considering the phase function of cloud particles, Abstracts of the 33rd COSPAR Scientific Assembly, A1.2-0061, Warsaw, Poland, July 16-23, (2000).
206. Kohei Arai, Phase function of relatively large aerosol particles containing bubbles and dusts, Abstracts of the 33rd COSPAR Scientific Assembly, A1.2-0062, Warsaw, Poland, July 16-23, (2000).
207. Mariko Oda, Kohei Arai and Seio Oda, Effectiveness of a new English pronunciation practice CAI system based on mouth movement, Proceedings of the Foreign Language Education and Teaching Symposium, No.4, p.83, (2000).
208. 209. Kohei Arai, Yasunori Terayama, Evaluation of marginal effects considering cloud layer structure using Monte Carlo method, Chiba University Environmental Remote Sensing Research Center (CEReS) Joint Usage Research Report, No. 6, pp.52-55, Apr. ., (2000).
209. Kohei Arai, Remote Sensing Data and Information Access Link(RSDIAL), Proceedings of the IGOS-P and DISS AdHoc WG Meeting, Tokyo, Apr.26-28, (2000).
210. Kohei Arai, URL search engine with text search tools for disaster mitigation, Proceedings of the Asian Disaster Reduction Center R&D Project Workshop, Mar.3, (2000).
211. Kohei Arai, Four dimensional GIS system through internet, Proceedings of the Asian Disaster Reduction Center R&D Project Workshop, Mar.4, (2000).
212. Kohei Arai, Visualization of disaster information derived from Earth observation data, Proceedings of the Asian Disaster Reduction Center R&D Project Workshop, Aug.31, (2000).
213. Kohei Arai, Java based image processing and analysis software package, Proceedings of the Japan-US Science, Technology and Space Application Program Workshop, Hiro, Hawaii, (2000).
214. Kohei Arai, Internet Geographic Information System (GIS), Proceedings of the Japan-US Science, Technology and Space Application Program Workshop, Hiro, Hawaii, (2000).

215. Kohei Arai, Disaster related URL search engine with queries in a natural language, Proceedings of the Japan-US Science, Technology and Space Application Program Workshop, Hiro, Hawaii, (2000).
216. Kohei Arai, Disaster monitoring with ASTER onboard Terra satellite, Proceedings of the Japan-US Science, Technology and Space Application Program Workshop, Hiro, Hawaii, (2000).
217. Kohei Arai, Clearing house for disaster management, Proceedings of the Japan-US Science, Technology and Space Application Program Workshop, Hiro, Hawaii, Nov.15, (2000).
218. Kohei Arai, The results from vicarious calibration of ADEOS/AVNIR and OCTS with AVIRIS, Abstracts of AVIRIS Earth Science and Application Workshop, NASA/JPL, 2001.
219. 220. Kohei Arai, Shoji Saeki, Polarimetric SAR image classification using decomposition method based on eigenvalue expansion and circular polarization basis, Proceedings of the SAR Workshop 2001, Tokyo, 2001.
220. Kohei Arai, Polarization sensitivity of the ocean surface together with wind vector derived from POLDER and NSCAT on ADEOS, Proceedings of the NASA Oceanography Scientific Conference, Florida, USA, 2001.
221. Kohei Arai, Sea Surface Temperature(SST) estimation with microwave radiometers by means of simulated annealing based on an ocean surface model, Proceedings of the NASA Oceanography Scientific Conference, Florida, USA, 2001.
222. Kohei Arai, Polarization sensitivity of the ocean surface together with wind vector derived from POLDER and NSCAT on ADEOS, Proceedings of the NASA Oceanography Scientific Conference, Florida, USA, 2001.
223. K. Thome, F. Palluconi, Kohei Arai, S. Hook, H. Tonooka, S. Tsuchida, Inflight radiometric calibration of ASTER, American Geoscience Union Spring Symposium, Boston, 2001.
224. Shigeki Kuzuoka and Kohei Arai, Parameter estimation of trees by surface reconstruction, Proceedings of the Remote Sensing and Photogrammetry 2001, Technical Committee, London, 2001.
225. Kohei Arai, Shinji Matsuda and Mariko Oda, English pronunciation practice system using voice and video recognitions based on optical flow, Proceedings of the International Conference on Information Technology Based Higher Education and Training, Kumamoto, 2001.
226. Akira Yoshizawa and Kohei Arai, Influence due to geomorphology on context Genetic Algorithm Clustering, Transactions of the Japanese Geomorphological Union, Vol.22, No.4, 23-28, 2001.
227. Kohei Arai, Human Computer Interaction, Proceedings of the 9th International Training Course at EEPIS, p.8,2001
228. Kohei Arai, GIS and remote sensing, Proceedings of the 10th International Training Course at EEPIS, p.8,2001.
229. Kohei Arai, Information and Communication Technology for Higher Education in Japan, Proceedings of the First JICA Seminar on Administration for Higher Education and Information Technology,2001.
230. Kohei Arai, Sea Surface Temperature(SST) retrieval with microwave radiometer data based on simulated annealing, 2001 Electrical Association Kyushu Branch Conference, Asian Session, 2001.
231. S. Sobue, Kohei Arai and N. Futamura, Development of a method of cloud detection in Japanese Earth observation satellites, Proceedings of the ISTS (International Space Science and Technology Symposium), N-6, 2002-n-21,2002.
232. Kohei Arai, Method for estimation of refractive index and size distribution of aerosol using direct, diffuse and aureole by means of simulated annealing, Proceedings of the COSPAR (Committee on Space Research) Congress, p.10 (Solicited Paper),2002.
233. Kohei Arai, Open GIS with spatial and temporal retrievals as well as assimilation functionality, Proceedings of the Asia Pacific Advanced Network Natural Resource Workshop, Utilization of Earthly Observation Satellite-Digital Asia Special Session 1, p8,2003.
234. Kohei Arai, K. Thome, S. Tsuchida, Vicarious calibration of ASTER/VNIR and SWIR, Proceedings of the Calibration/Cross Calibration Workshop for the AM Constellation Instruments, p.2003.
235. Kohei Arai, H. Tonooka, T. Matsunaga, F. Palluconi, S. Hook, Vicarious calibration of ASTER/TIR and cross comparison between TIR and MODIS, MASTER, Proceedings of the Calibration/Cross Calibration Workshop for the AM Constellation Instruments, p.8,2003.
236. Kohei Arai and Ali Ridho Barakbah, Method for shape independent clustering in case of numerical clustering together with condensed clustering Proc. of the 8th World Multi-Conference on Systematics Cybernetics and Informatics, (2004)
237. Kohei Arai and Jun Sakakibara, Estimation of SST, wind speed and water vapor with microwave radiometer data based on simulated annealing, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A1.1-0130-04, (2004)

238. Kohei Arai and XingMing Liang, Characterization of aerosols in Saga city area in Japan with direct and diffuse solar irradiance and aureole observations, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A3.1-0038-04, (2004)
239. Kohei Arai and Quiang Liu, Influence due to Rayleigh scattering assumption on rain rate estimation with precipitation radar data, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A1.1-0231-04, (2004)
240. Kohei Arai and Wang June, Polarimetric SAR image classification with maximum curvature of the trajectory in eigen space domain on the polarization signature, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A3.1-0061-04, (2004)
241. Kohei Arai, Yuki Iisasa and XingMing Liang, Aerosol parameter estimation with changing observation angle of ground based polarization radiometer, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A3.1-0037-04, (2004)
242. Kohei Arai and Masanori Saka, Reconstruction of cross section of rainfall situations with precipitation radar data based on wavelet analysis, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A1.1-0232-04, (2004)
243. Kohei Arai, Vicarious calibration for solar reflectance channels of radiometer onboard Earth observation satellites with deserted areas of data, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A1.1-0130-04, (2004)
244. Kohei Arai, Ghosting in ADEOS/OCTS images and its correction based on convolution filtering with Gaussian function, Abstracts of the 35th Congress of the Committee on Space Research of the ICSU, A3.1-0039-04, (2004)
245. Ali Ridho Barakbah and Kohei Arai, identifying moving variance to make automatic cluster construction, Proc. Indonesian Society on Electrical, Electronics Communication and Information (IECI) Japan, Annual IECI Japan Workshop, (2004)
246. Shin-ichi Sobue and Kohei Arai, Development of method for cloud detection in ASTER image data, Proc. of the 24th International Symposium on Space Technology and Science (ISTS), n-01, (2004)
247. Ali Ridho Barakbah and Kohei Arai, Determining constraints of moving variance to find global optimum and make automatic clustering, Proc. of the 6th Industrial Electronic Seminar, IES 2004, (2004)
248. Kohei Arai, e-Learning for higher education and global enterprises Proc. of the 1st Symposium on Developing of National ICT Competencies in Higher Education Institutions, (2004)
249. Hiroshi Okumura and Kohei Arai, Full automated texture classification method based on rotation invariant moment and genetic algorithms, Proc., SPIE 2005 (International Society of Optical Engineering), 19-22, SPIE Europe International Symposium on Remote Sensing, 2005
250. Kohei Arai, Neural Network Geographic Information System: NN-GIS for generation of ocean products with satellite remote sensing data, ABSTRACT of INTERCOH 2005, 138-139, 2005
251. Kohei Arai and Chen H., Category decomposition based on subspace method with learning process, Abstract, COSPAR A1.1, A-00712, 2006.
252. Kohei Arai and Liang XM., Estimation of air-temperature profile with AQUA/AIRS data on the tropospheric boundary, Abstract, COSPAR A1.1, A-00715, 2006.
253. Ding YL, and Kohei Arai, Forest parameter estimation by means of Monte-Carlo simulations with experimental considerations, Abstract, COSPAR A1.1, A-00629, 2006.
254. Liang XM., and Kohei Arai, Multi-stage calibration for sunphotometer, Abstract, COSPAR A1.1, A-00625, 2006.
255. Kohei Arai, Non-linear mixing model of remotely sensed image based on Monte-Carlo simulations, Abstract, COSPAR A3.1, A-00240, 2006.
256. Kohei Arai, Geographic information system: GIS based on neural network for appropriate parameter estimation of geophysical retrieval equations with satellite remote sensing data, Proceedings of the IEEE Geoscience and Remote Sensing, PID 220128, 2006.
257. Kohei Arai and Liang XM., Vicarious calibration of ASTER/VNIR with ground based measurements of refractive index and size distribution of aerosols, Proceedings of the IEEE Geoscience and Remote Sensing, PID 231531, 2006.
258. Kohei Arai, Phase function of relatively large size of non-spherical aerosols originated from the ocean estimated from ray tracing experiments, Proceedings of the IEEE Geoscience and Remote Sensing, PID 220124, 2006.
259. Kohei Arai, FOSS GIS of POSTGIS and Java based image processing and analysis software, Proceedings of the International Society of Photogrammetry and Remote Sensing Commission IV, CATCON, 2006.
260. Kohei Arai and Liang XM., Method for skin sea surface temperature estimation with MODIS data, Proceedings of the InterCOE International Symposium on Energy Systems, 2006.

261. Ali Ridho Barakbah and Kohei Arai, Pursuit reinforcement competitive learning: An approach for on-line clustering, Proceedings of the IEEE Indonesian Chapter of the 2nd Information and Communication Technique Seminar, ISSN1858-1633, 45-48, 2006.
262. Kohei Arai and Jun Sakakibara, Simultaneous estimation of sea surface temperature, wind speed and water vapor with AMSR-E data based on improved simulated annealing, Proceedings of the Renewable Energy Resources Symposium, 00547, 2006.
263. Kohei Arai, Evaluation of the algorithms for estimation of Sea Surface Temperature with MODIS data, Proceedings of the Renewable Energy Resources Symposium, 00546, 2006.
264. Kohei Arai, Space and time retrieval of tide wind speed and wave height with altimeters onboard satellites based on PostGIS system, Proceedings of the Renewable Energy Resources Symposium, 00548, 2006.
265. Kohei Arai and Djoko Purwant, Electric wheel chair control with human eyes, Proceedings of the 7th International Conference on Optimization: Techniques and Applications (ICOTA7), Kobe International Convention Center, 2007
266. Kohei Arai, Relation between sensor data collection and analysis and knowledgebase for tsunami warning system, Proc. of the 1st International Symposium on Universal Communication, Session #8, Knowledge processing of multimedia information, Kyoto, 2007.
267. Kohei Arai, ICT technology for disaster mitigation,-Tsunami warning system-, Proceedings of the 1st International Workshop on Knowledge Cluster Systems, 2007.
268. Kohei Arai, Data collection and active database for tsunami warning system, Proceedings of the 1st International Workshop on Knowledge Cluster Systems, 2007.
269. Kohei Arai, Communication links and evacuation/navigation information services for tsunami warning system, Proceedings of the 1st International Workshop on Knowledge Cluster Systems, 2007.
270. Djoko Purwant, R. Mardiyanto, Kohei Arai, Robot motion control with human eye command, Proc. of the 13th International Symp. on Artificial Life and Robotics, AROB2008, GS21-5, B-Com.Plaza, 2008
271. Kohei Arai, Aerosol refractive index estimation with ground based polarization measurement data, Abstract of the 50th COSPAR (Committee on Space Research/ICSU) Congress, A3.1-0092-08, 985, Montreal, Canada, July, 2008
272. Kohei Arai and Yui Nishimura, Degree of polarization model for leaves and discrimination between pea and rice type s leaves for estimation of leaf area index, Abstract of the 50th COSPAR (Committee on Space Research/ICSU) Congress, A3.1-0010-08 ,991, Montreal, Canada, July 2008
273. Kohei Arai and Long Lili, BRDF model for new tealeaves on old tealeaves and new tealeaves monitoring through B RDF measurement with web cameras, Abstract of the 50th COSPAR (Committee on Space Research/ICSU) Congress, A3.1-0008-08 ,992, Montreal, Canada, July 2008
274. Kohei Arai and Naohisa Nakamizo, Water vapor and air-temperature profile estimation with AIRS data based on Levenberg -Marquadt, Abstract of the 50th COSPAR (Committee on Space Research/ICSU) Congress, A 3.1-0086-08,995, Montreal, Canada, July 2008
275. Kohei Arai and Kenji Yamaguchi, Air-temperature, water vapor and atmospheric pressure estimations with spectral radiometer in near infrared wavelength regions, Abstract of the 50th COSPAR (Committee on Space Research/ICSU) Congress, A3.1-0087-08 ,996, Montreal, Canada, July 2008
276. Kohei Arai, Chapter 4: A sea surface temperature estimation method for ocean areas and seasons using a GIS as Neural Network, Proceeding of the Marine Science, 9, 43-51, 2008.
277. Djoko Purwanto, Ronny Mardiyanto, Kohei Arai, Electric wheelchair control with gaze detection and eye blinking, Proceedings of the International Symposium on Artificial Life and Robotics, GS9-4, 2009.
278. Osamu Fukuda, Masayoshi Tsubai, Masahiro Inoue, Nan Bu, Naohiro Ueno, Hiroshi Okumura and Kohei Arai, Development of a ubiquitous echographic device for evaluating human body composition, Proceedings of the International Journal of Digital Content Technology and Its Applications, 3, 2, 10-20, 2009.
279. Achmad Basuki, Tri Harsono and Kohei Arai, Modeling and simulation of hot mudflow movement prediction using cellular automata, Proceedings of the 3rd Asia International Conference on Modeling and Simulations, Asia Modeling Symposium 2009.
280. Tri Harsono, Achmad Basuki and Kohei Arai, Monte-Carlo simulation of micro traffic with an unpredictable disturbance, Proceedings of the 3rd Asia International Conference on Modeling and Simulations, Asia Modeling Symposium 2009.
281. Kohei Arai, Estimation method for total nitrogen and fiber contents in tealeaves as well as growth index of tealeaves and tea estate monitoring with network cameras, Proceedings of the IEEE Computer Society, Information Technology in Next Generation, ITNG, 595-600, 2009

282. Masahiro Inoue, Fukuda Osamu, Tsubai Masayoshi, Muraki Satoshi, Okumura Hiroshi and Kohei Arai, Automated discrimination method for measuring the thickness of muscular and subcutaneous fat levers based on tissue elasticity, Proceedings of the 31st International Conference of the IEEE Engineering in Medicine and Biology Society , EMBC'09, 2009.
283. Kohei Arai, Aerosol refractive index retrievals with atmospheric polarization measuring data, Proceedings of the SPIE, 7461-06, 1-9, 2009.
284. Kohei Arai, Reflectance based vicarious calibration of ASTER/VNIR with aerosol refractive index and size distribution estimation using measured atmospheric polarization irradiance, Proceedings of the SPIE, 7461-08, 1-9, 2009.
285. Tri Harsono, Achmad Basuki and Kohei Arai, An extended car following approach using agent based model on evacuation system of micro traffic, Proceedings of the 10th Industrial Electronic Seminar, D36-D40, 2009.
286. Kohei Arai, Blended learning with e-learning and mobile learning, Institute of Technology Bandun (ITB), Indonesia, Keynote Speech, Blended Learning Seminar and Workshop on Blended Learning, December 16 2009.
287. Kohei Arai and Tolle Herman, Method for automatic e-comic scene frame extraction for reading comic on mobile devices, Proceedings of the Information Technology for Next Generation (ITNG2010) 2010.
288. Kohei Arai and Ronny Mardiyanto, Eye-mouse with single camera that allows users' movements, Proceedings of the Image Electronics and Visual Computing Workshop (IEVC 2010), 2010.
289. Kohei Arai and Lipur Sugiyanta, Agent based approach of routing protocol minimizing the number of hops and maintaining connectivity of mobile terminals which move from one area to the other, Proceedings of the International Conference on Computational Science and Its Applications (ICCSA2010), LNCS part-III, 305-320,2010.
290. Kohei Arai and Achmad Basuki, Cellular automata based approach for prediction of hot mudflow disaster area, Proceedings of the International Conference on Computational Science and Its Applications (ICCSA2010), LNCS part-II, 87-98, 2010.
291. Kohei Arai and Tri Harsono, Agent based evacuation model with car-following parameters by means of cellular automata, Proceedings of the International Conference on Computational Science and Its Applications (ICCSA2010), LNCS part-II, 71-86, 2010.
292. Kohei Arai and Ronny Mardiyanto, Improvement of gaze estimation robustness using pupil knowledge, Proceedings of the International Conference on Computational Science and Its Applications (ICCSA2010), LNCS part-II, 336-350, 2010.
293. Kohei Arai, Vicarious calibration of solar reflection channels of spaceborne based instruments with polarization measurements, Proceedings of the 28th Committee on Space Research (COSPAR) Congress, Solicited Paper, A3-1-0032-10, 2010.
294. Kohei Arai, Comparison of at-sensor radiance estimated with measured size distribution of aerosol and that with Junge parameter derived from Angstrom exponent through optical depth measurements, Proceedings of the 28th Committee on Space Research (COSPAR) Congress, Solicited Paper, A3-1-0033-10, 2010.
295. Kohei Arai and Yasunori Terayama, Polarized radiance from red tide, Proceedings of the SPIE Asia Pacific Remote Sensing, AE10-AE101-14, 2010
296. H. Okumura and Kohei Arai, Improvement of change detection method for remotely sensed images, Proceedings of SPIE European Remote Sensing, Invited Paper, ERS-10-RS07-61, 2010.
297. Kohei Arai and Achmad Basuki, Simulation of hot mudflow disaster with cellular automata and verification with satellite imagery data, Proceedings of the ISPRS WG VIII/1 TS-19, 2010
298. Kohei Arai, N. Ohgi and H. Inada, Suspected plume impingement influence onboard calibration system of Terra/ASTER/VNIR investigated through trend analysis onboard calibration data, Proceedings of the ISPRS WG VIII/1 TS-4, 2010
299. Kohei Arai, Kiyotaka Fujisaki, Hiroaki Ikemi, Masato Masuya, Terumasa Miyahara, Backup communication routing through Internet Satellite, WINDS, for transmission of disaster relief data, Proceedings of the International Symposium on WINDS Application Experiments, 2010.
300. Kohei Arai, Free Open-Source Software for higher education, Proceedings of the Integrated Conference on Open Source for Higher Education 2010, Keynote speech, 9-12, 2010.
301. Kohei Arai, Backup communication routing through Internet satellite WINDS for transmission of disaster relief data, Proceedings of the International Symposium on WINDS, 2010.
302. Kohei Arai and Kiyotaka Fujisaki, Countermeasure for round trip delay which occurs in between satellite and ground with network accelerator, Proceedings of the Expert Meeting and the 5th Plenary Workshop of the Association for Application Experiments of WINDS, 2010.
303. Kohei Arai and Achmad Basuki, Two dimensional cellular automata approach for disaster spreading, Proceedings of the 18th Indonesian Scientific Meeting, 2010.



304. Kohei Arai and Tri Harsono, Cellular automata for micro traffic modeling and simulation, Proceedings of the 18th Indonesian Scientific Meeting, 2010.
305. Kohei Arai, Nagamitsu Ohgi, Fumihiro Sakuma, Satoshi Tsuchida, Hitomi Inada, Trend analysis of onboard calibration data of Terra/ASTER/VNIR and one of the suspected causes of sensitivity degradation, Proceedings of the Conference on Characterization and Radiometric Calibration for Remote Sensing (CALCON 2010), 2010.
306. Achmad Basuki and Kohei Arai, Two dimensional cellular automata approach for predicting forest fire spreading, Proceedings of the 12th Industrial Electronics Seminar, 2010.
307. Kohei Arai, Human Computer Interaction, Visiting Scholar, World Class University, The Program of Sebelas Maret University, Keynote Speech, 2010.
308. Kohei Arai, Wireless sensor network, Visiting Scholar, World Class University, The Program of Sebelas Maret University, Invited Speaker, 2010.
309. Kohei Arai, Disaster Mitigation, Visiting Scholar, World Class University, The Program of Sebelas Maret University, Invited Speaker, 2010.
310. Kohei Arai, Genetic Algorithm based clustering, Special lecture at Information Technology Faculty, Vinh University, 2010.
311. Kohei Arai, Red tides: combining satellite- and ground-based detection, SPIE Newsroom, 10.1117/2.1201012.003267, 1-2, 2010.
312. Achmad Basuki, Kohei Arai, Two dimensional cellular automata approach for predicting forest fire spreading, Proceedings of the 12th Industrial Electronics Seminar, at EEPIS, 1-8, 2011.
313. Kohei Arai, Yuji Yamada, Image retrieval method based on hue information and wavelet description based shape information as well as texture information of the objects extracted with dyadic wavelet transformation, Proceedings of the 11th Asian Symposium on Visualization, ASV-11-08-10, 1-8, 2011.
314. Kohei Arai, Yuji Yamada, Data hiding method which robust to run-length data compression based on lifting dyadic wavelet transformation, Proceedings of the 11th Asian Symposium on Visualization, ASV-11-08-11, 1-8, 2011.
315. Kohei Arai, Mobile learning, Seminar on Electrical Information and It's Application on Education, 2011.
316. Achmad Basuki, Kohei Arai, Cellular automata model for occupant evacuation simulation on large room using probability weighting movement, Proceedings of the IES: Industrial Electronics Seminar, at EEPIS, 1-8, 2011.
317. Rosa Andrie, Achmad Basuki, Kohei Arai, A review of Chinese Academy of Science (CASIA) gait database as a human gait recognition dataset, Proceedings of the IES: Industrial Electronics Seminar, at EEPIS, 1-8, 2011.
318. Tri Harsono, Kohei Arai, Deceleration in the micro traffic model and its application to simulation for evacuation from disaster area, Proceedings of the IES: Industrial Electronics Seminar, at EEPIS, 1-8, 2011.
319. Kohei Arai, Cellular automata approach for disaster propagation prediction and required data system in GIS representations, Proceedings of the 1st ICSU/WDS Conference - Global Data for Global Science, 2011.
320. Kohei Arai, Estimation of aerosol parameters with solar direct and diffuse irradiance data using the proposed measuring instrument without sun tracking mechanism, Proceedings of the Calibration Conference 2011, 2011.
321. Shigeru Aso, Tetsuo Yasaka, Yasuhiro Tani, Toshiya Hanada, Masahiko Murozono, Masatoshi Omura Yoshiro Tsuruda, Shunsuke Onishi, Kohei Arai, Megu Cho, Masanori Nishio, QSAT-EOS 50kg class small satellite for Earth observation system demonstration, Proceedings of the 28th ISTS: International Symposium on Space Technology and Science, 2011-r-14, 2011.
322. Kohei Arai, Herman Tolle, Ronny Mardiyanto, Screen control of e-comic, e-book, e-learning content using gaze and information extraction from one-seg broadcasting, Information Processing Society of Japan Entertainment Computing Study Group, 9th EC-2011, 2011
323. H. Okumura, M. Fukusaki, S. Takubo, Kohei Arai, Development of a human vision simulation camera and its application, Proceedings of SPIE, Vol.8295A, Image Processing, Algorithms, and Systems, 2012.
324. Kohei Arai, Data hiding method based on Dyadic wavelet transformation improving in-visibility of secret images on circulation images by means of run length coding with permutation matrix based on random number, Proceedings of the Information Technology for Next Generation: ITNG conference 2012, 189, 2012.
325. Kohei Arai, R.Andrie, Gait recognition method based on wavelet transformation and its evaluation with Chinese Academy of Science (CASIA) gait database as human gait recognition dataset, Proceedings of the Information Technology for Next Generation: ITNG conference 2012, 213, 2012.

326. Kohei Arai, Cell based GIS as Cellular Automata for disaster spreading prediction and required data systems, CODATA Data Science Journal, 137-141, 2012.
327. I.Morino, O. Uchino, Y. Yoshida, N. Kikuchi, M. Inoue, K. Nakamae, T. Yokota, V. Sherlock, B. Liley, S. Kawakami, H. Ohyama, T. Nagai, T. Sakai, Kohei Arai, H. Okumura, Advanced validation of the GOSAT observed Co<sub>2</sub> and CH<sub>4</sub> at prioritized observation sites, AGU Fall Meeting, A063, 2012.
328. H. Okumura, S. Takubo, T. Kawsaki, I.N. Abdulah, T. Sakai, T. Maki, Kohei Arai, Web based data acquisition and management system for GOSAT validation Lidar data analysis, Proceedings of the SPIE Vol.8537, Conference 8537: Image and Signal Processing for Remote Sensing, Paper #8537-43, system, 2012.
329. T. Sakai, H. Okumura, T. Kawsaki, I.N. Abdulah, O. Uchino, I. Morino, T. Yokota, T. Nagai, T. Sakai, T. Maki, Kohei Arai, Observation of aerosol parameters at Saga using GOSAT product validation Lidar, Proceedings of the SPIE Vol.8526, Conference 8526: Lidar Remote Sensing for Environmental Monitoring XIII, SPIE Asia-Pacific Remote Sensing, Paper #8295A-50, IP1, 2012.
330. Kohei Arai, Trend analysis of Terra/ASTER/VNIR radiometric calibration through onboard and vicarious calibration as well as cross calibration with MODIS, Solicited paper of the 39th COSPAR Scientific Assembly of the Committee on Space Research of ICSU (International Council for Science/United Nation), A3.1-0034-12, ID#28042012, 2012.
331. Kohei Arai, T. Herman, Method for information extraction from Japan TV commercial, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 19-25, 2012.
332. Kohei Arai, T.X. Sang, Multi agent based rescue simulation for disabled persons with the help of volunteers in emergency situation, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 81-85, 2012.
333. Kohei Arai, S.R. Sentinuwo, Local path planning using CA model to avoid transient obstacles for robotic on hospital corridor, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 86-93, 2012.
334. Kohei Arai, R. Andrie, Human gait estimation for handicapped person, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 115-122, 2012.
335. Kohei Arai, R. Mardiyanto, The eye based domestic helper robot allowing patient to be self-services through voice communications, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 139-142, 2012.
336. Kohei Arai, Hiroshi Yamada, Improving visibility of data hiding using coded multilevel images as key images, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 195-198, 2012.
337. Kohei Arai, R.Andrie, Human gait gender classification in natural condition utilizing NIR camera, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 203-210, 2012.
338. Kohei Arai, Gaze input system and its applications, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 223-230, 2012.
339. Kohei Arai, C.Rahmad, Wavelet based image retrievals, Proceedings of the 260th conference in Saga of Image and Electronics Engineering Society of Japan, 243-247, 2012.
340. Osamu Uchino, Tetsu Sakai, Tomohiro Nagai, Isamu Morino, Hiroshi Okumura, Shoichiro Takubo, Ken Kawasaki, Kohei Arai, Masahisa Nakazato, Tsuneo Matsunaga, Tatsuya Yokota, Tropospheric ozone observation over Saga using differential absorption lidar, Vol. 38th Society of Instrument and Control Engineers Remote Sensing Symposium, 2012.
341. Kohei Arai, Data processing analysis utilization plan for micro earth observation satellite from Kyushu, 56th Space Science and Technology Union Lecture, 3M05, 2012.
342. Shigeru Aso, Tetsuo Yasaka, Haruhiko Ota, Toshiya Hanada, Yasuhiro Tani, Masahiko Murozono, Hiroshi Hirayama, Yoshihiro Tsuruta, Shunsuke Onishi, Katsutoshi Omura, Kohei Arai, Masanori Nishio, Mengyu Cho, Kyushu Earth Observation Microsatellite QSAT-EOS 56th Space Science and Technology Union Conference, 3M04, 2012.
343. Kohei Arai, T.Herman, Automatic information extraction from on-air TV commercial contents, Proceedings of the International Conference on Convergence Content 2012, 171-172, 2012.
344. Kohei Arai, A.N.Hardiyani, Avatar utilized Q/A system of e-learning content designed with Open Simulator, Proceedings of the International Conference on Convergence Content 2012, 149-150, 2012.
345. Kohei Arai, T.Herman, E-comic content adaptation method for mobile phone devices, Proceedings of the International Conference on Convergence Content 2012, 79-80, 2012.
346. Kohei Arai, X.Y.Guo, Method for 3D object of content representation and manipulations on 2D display using human eyes only, Proceedings of the International Conference on Convergence Content 2012, 49-50, 2012.

347. Kohei Arai, T.Herman, E-learning content adaptation method for smart phone based learning system, Proceedings of the International Conference on Convergence Content 2012, 9-12, 2012.
348. Hiroshi Okumura, Shoichiro Takubo, Shoichi Ozaki, Takeru Kawasaki, Indra Nugraha Abdulah, Kohei Arai, Osamu Fukuda, Development of a human vision simulation camera and its application: Implementation of specific color perception (2013), SPIE Electronic Imaging Conference
349. Hiroshi Okumura, Shoichiro Takubo, Takeru Kawasaki, Indra Nugraha Abdulah, Osamu Uchino, Isamu Morino, Tatsuya Yokota, Tomohiro Nagai, Tetu Sakai, Takashi Maki, Kohei Arai, Improvement of web-based data acquisition and management system for GOSAT validation Lidar data analysis (2013), SPIE Electronic Imaging Conference
350. Yeni Herdiyeni, Kohei Arai, Ellyn Danayanti, Ervizal A.M. Zaherdi, A computer aided system for tropical leaf medicinal plant identification (2013), Proceedings of the 1st International Conference on Sustainable Agriculture, Food and Energy, SAFE 2013
351. Shuji Kawakami Hirofumi Ohyama, Kei Shiomin Takuya Fukamachi, Choyo, Taura, Kohei Arai, Hiroshi Okumura, Observations of carbon dioxide and methane column amount at Saga with high resolution FTIR in 2011-2012(2013), Proceedings of the International Symposium on Remote Sensing, ISRS 2013.
352. T. Sakai, O. Uchino, I. Morino, T. Nagai, S. Kawakami, H. Ohyama, A. Uchiyama, A. Yamazaki, Kohei Arai, H. Okumura, Y. Takubo, T. Kawasaki, T. Akaho, T. Shibata, T. Nagahama, Y. Yoshida, N. Kikuchi, B. Liley, V. Sharlock, J. Robinson, T. Yokota, Impact of aerosol and cirrus clouds on the GOSAT observed CO<sub>2</sub> and CH<sub>4</sub> inferred from ground based lidar, skyradiometer and FTS data at prioritized observation sites,(2013), Proceedings of the 9th International Workshop on Greenhouse Gas measurements from Space, IWGGMS-9, 2013
353. Shuji Kawakami, Hirofumi Ohyama, Kei Shiomi, T.Fukamachi, Kohei Arai, C.Taura, H.Okumura, Observations of carbon dioxide and methane column amounts measured by high resolution of FTIR ar Saga in 2011-2012, Proceedings of the International Symposium on Remote Sensing, ISRS-TCCOC 2013.(2013)
354. Osamu Uchino, T.Sakai, T.nagai, I.Morino, H.Ohyama, S.Kawakami, K.Shiomi, T Kawasaki, T.Akaho, H.Okumura, Kohei Arai, T.matsunaga, T.Yokota, Comparison of lower tropospheric ozone column observed by DIAL and GOSAT TANSO-FTS TIR, Proceedings of the AGU Fall Meeting 2013.(2013)
355. I Morino, T Sakai, T.Nagai, A.Uchiyama, A.Yamazaki, S Kawakami, H.Ohyama, Kohei Arai, H.Okumura, T.Shibata, T.Nagahama, N.Kikuchi, Y.Yoshida, Ben Liley, Vanessa Sherlock, John Robinson, O. Uchino, T.Yokota, Impact of aerosols and cirrus on the GOSAT onboard CO<sub>2</sub> and CH<sub>4</sub> inferred from ground based Lidar, skyradiometer and FTS data at prioritized observation sites, Proceedings of the AGU Fall Meeting 2013.(2013)
356. O.Uchino, I.Morino, M.Inoue, Y.Yoshida, N.Kikuchi, K.Nakane, T.Yokota, Debra Winch, Coleen M. Roahl,Paul U.Wannberg, Geoffrey C.Toon, Nicholas M.Deuscher, Thorsten Weneke, Justus Notholt, David W., T.Griffich, Vennesa Sherlock, John Robinson, Brian Connor, Ralf Sussmann, Markus Rettinger, Petteri Ahonen, Paul Heikkinen, Esko Kiro, Joseph mendonka, Kinbbely Strong, Frank Hase, Susanne Dohe, Skanakami, H.Ohyama, T.Nagahana, T. Machida, Y.Suwa, H.Matsueda, K.Tsuboi, Colun Sunney, Pieter Tans, Arlyn Andrews, Sebastian C.Biraud, Steven C.Wofsy, T.Sakai, T.Nagai, A.Yamazaki, A.Uchiyama, T.Akaho, T.Kawsaki, H.Okumura, Kohei Arai, ban liley, T.Shibata, On the validation results of five year GOSAT SWIR XO<sub>2</sub> and XCH<sub>4</sub> data, Proc. of the IWGGMS-10, 2014.
357. H.Okumura, T. Akaho, Y. Kojiro, O. Uchiyama, I.Morino, T.Yokota, T.Nagai, T.Sakai, T.Maki, A.Yamasaki, Kohei Arai, Development of PM<sub>2.5</sub> density distribution visualization system using ground-level sensor network and Mie-Lidar, Proc. of the SPIE European Remote Sensing Conference, ERS 14-RS107-97, 2014.
358. Kohei Arai, Product amont and quality monitoring in agricultural fields with remote sensing satellite and radio-control helicopter, Proc. of the 40th Science Assembly of the COSPAR (Solicited), Advanced RS Methhods and Technics, ID12566, A3.1-0041,2014
359. Kohei Arai, Vicarious calibration of Terra/ASTER/VNIR with desert scenes together with cross calibration, Proc. of the SPIE 9218-26, Session 6 EOS Terra II, Track OP140-OP401-2, 2014.
360. Kohei Arai, Computer input by human eyes only and its applications, Proc. of the 2nd Science and Information SAI Conference, Invited paper, 2014.
361. Herman Tolle, Aryo Pinandito, Erq Muhanmad Adans J, Kohei Arai, Virtual reality game controlled with users' head and body movement detection using smartphone sensors, Proceedings of the International Conference on Electric and Electronics Engineering, IC3E 2015, #96, 2015.
362. Kohei Arai, Rescue system with sensor network for physical and psychological health monitoring, Proceedings of the International Seminar on Intelligent Technology and Its Applications: ISITIA 2015, (Keynote Speech), 2015.

363. Kohei Arai, Computer vision for remote sensing, Proceedings of the Special Lecture on Computer Vision for Remote Sensing of Agriculture, #1, 2015.
364. Kohei Arai, Remote Sensing for Agriculture, Proceedings of the Special Lecture on Computer Vision for Remote Sensing of Agriculture, #2, 2015.
365. Whing Ayu Lestari, Yeni Herdiyeni, Wahyudi Hasbi, Lilik Badi, Presetyo, Kohei Arai, H.Okumura, Nitrogen estimation of paddy based on leaf reflectance using artificial neural network, Proceedings of the 7th International Conference on Soft Computing and Pattern Recognition, SOCPAR 2015, PID: 3931613, 2015.
366. Kohei Arai, Rescue system with sensor network for physical and psychological health monitoring, Proceedings of the SAI Conference 2015
367. Herman Tolle Kohei Arai, Aryo Pinandto, Adaptation of Composite E-Learning Contents for Reusable in Smartphone Based on Learning System, Proceedings of the International Conference on Advanced Computer Science and Information Systems 2014, 502-507, DOI10-1109/ICANSIS 2014, 7065895, IEEE, 2014
368. Tri Harsono, Ali Ridho, Kohei Arai, Muriffin, Human Behavior Based Evacuation in a Large Room Using Cellular Automata Model for Pedestrian Dynamics, Proceeding of the 3rd Indonesian Japanese Conference on Knowledge Creation and Intelligent Computing, 96-101, 2014.
369. Hiroshi Okumura, Kohei Arai, Improvement of PM2.5 density distribution visualization system using ground-level sensor network and Mie lidar, Proceedings of the Conference on Remote Sensing of Clouds and the Atmosphere of SPIE Remote Sensing, ERS15-RS104-50, 2014.
370. Herman Tolle, Aryo Pinandto, Eric Muhamad, Adans J., Kohei Arai, Virtual reality game controlled with user's head and body movement detection using smartphone sensors, Proceedings of the International Conference on Electrical and Electronics Engineering IC3E 2015, #96, 2015.
371. H.Okumura, T.Akaho, Y.Kojiro, S.Okano, O.Uchino, I.Morino, T.Yokota, T.Nagano, T.Sakai, T.Maki, A.Yamazaki Kohei Arai, Improvement of pm2.5 density distribution visualization system using ground-level sensor network and Mie lidar, Proceedings of the SPIE R/S, P.9640-46, 21-24, 2015.
372. Whing Agy Lestari, Yeni Herdiyeni, Wahyudi Hasbi, Lilik Budi Prasetyo, Kohei Arai, H. Okumura, Nitrogen Estimation of Paddy Based on Leaf Reflectance Using Artificial Neural Network, Proceedings of the 7th International Conference on Soft Computing and Pattern Recognition, SOCPAR 2015, PID:3931613, 2015.
373. Steven Ray Sentinuwo, Kohei Arai, A simulation study of traffic agent to identify traffic flow density using modified traffic cellular automata model, Proceedings of the 1st International Conference on Wireless and Technics, ICWT 2015,
374. Setis Darmawan Afandi, Yeni Herdiyeni, Lilik Prasetyo, Wahyudi Hasbi, Kohei Arai, H. Okumura, Nitrogen Content Estimation of Rice Crop Based on Near Infrared (NIR) Reflectance Using Artificial Neural Network (ANN), Proceedings of the 2nd International Symposium on LAPAN-IPB Satellite 2015, 1-7, 2015.
375. Osamu Fukuda, Tatsuma Shimizu, Hiroshi Okumura, Kohei Arai, Satoshi Murai, Image analysis of thigh cross-sectional proportion, Proceedings of the 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2015.
376. Ari Sandhyavitri, Fajar Restuhadi, Rudianda Sulainan, Kohei Arai, Sigit Sutikno, Assessment of Mangrove Carbon Stock Based on Remote Sensing (RS) Geographic Information System (GIS) and Ground Check (GC) Methods in Indragiri Hilir Indonesia, Proceedings of the ICCOE Conference, 2015.
377. Osamu Fukuda, Tatsuma Shimizu, Hiroshi Okumura, Kohei Arai, Kiyotaka Fukumoto, Satoshi Muraki, Analysis of Thigh Proportion Using the Portable Ultrasound Imaging System, Proceedings of the IEEE Health Conference 2016, #1570286269, 2016.
378. Osamu Uchino, Isamu Morino, Tetsu Sakai, Toshiharu Izumi, Tomohiro Nagai, Takashi Shibata, Hiroshi Okumura, Kohei Arai, Ben Liley, Gerty Bagtasa, Lidar observations at prioritized sites for GOSAT validation, Proceedings of the AGU Fall Meeting 2016.
379. Kohei Arai, Wavelet Multi-Resolution Analysis and Its Application to Polarimetric SAR Classification, Proceeding of the SAI Computing Conference 2016,
380. Kohei Arai, Intelligent System for XCO<sub>2</sub> and XCH<sub>4</sub> Retrieval with FTIR Data, Proceedings of the SAI Intelligent Systems Conference 2016
381. Kohei Arai, Intelligent System for Agricultural Field Monitoring, Proceedings of the SAI Intelligent Systems Conference 2016
382. Kohei Arai, Future Technology for Wearable Computing in Particular for Input Devices, Proceedings of the SAI Future Technology Conference 2016.
383. Kohei Arai, Wearable computing with computer input just by sight for health care, Proceedings of the 2016 International Conference on Advanced Computer Science and Information Systems, Keynote speech, 2016.

384. Kohei Arai, Multi-level observation system for agricultural field monitoring, Proceedings of the 1st International Conference on Sustainable Information, Engineering and Technology, Keynote Speech, 2016.
385. Kohei Arai, Multi-Layer Observation for Agricultural Field Monitoring, Proceedings of the 1st ICON-EEI 2016 Conference, Keynote Speech, 2016.
386. Kohei Arai, Human-Computer Interaction: Next Generation, Proceedings of the International Conference on Information Technology: Next Generation 2016,
387. Osamu Fukuda, Tatsuma Shimizu, Hiroshi Okumura, Kohei Arai, Kiyotaka Fukumoto, Satoshi Muraki, Analysis of Thigh Proportion Using the Portable Ultrasound Imaging System, Proceedings of the IEEE Health Conference 2016, #1570286269, 2016.
388. Osamu Uchino, Isamu Morino, Tetsu Sakai, Toshiharu Izumi, Tomohiro Nagai, Takashi Shibata, Hiroshi Okumura, Kohei Arai, Ben Liley, Gerty Bagtasa, Lidar observations at prioritized sites for GOSAT validation, Proceedings of the AGU Fall Meeting 2016.
389. Kohei Arai, Wavelet Multi-Resolution Analysis and Its Application to Polarimetric SAR Classification, Proceedings of the SAI Computing Conference 2016,
390. Kohei Arai, Intelligent System for XCO<sub>2</sub> and XCH<sub>4</sub> Retrieval with FTIR Data, Proceedings of the SAI Intelligent Systems Conference 2016
391. Kohei Arai, Intelligent System for Agricultural Field Monitoring, Proceedings of the SAI Intelligent Systems Conference 2016
392. Kohei Arai, Future Technology for Wearable Computing in Particular for Input Devices, Proceedings of the SAI Future Technology Conference 2016.
393. Kohei Arai, Wearable computing with computer input just by sight for health care, Proceedings of the 2016 International Conference on Advanced Computer Science and Information Systems, Keynote speech, 2016.
394. Kohei Arai, Multi-level observation system for agricultural field monitoring, Proceedings of the 1st International Conference on Sustainable Information, Engineering and Technology, Keynote Speech, 2016.
395. Kohei Arai, Multi-Layer Observation for Agricultural Field Monitoring, Proceedings of the 1st ICON-EEI 2016 Conference, Keynote Speech, 2016.
396. Kohei Arai, Multi-Layer Observation for Agricultural (Tea and Rice) Field Monitoring, Proceedings of the Seminar at Bogor Agriculture University, Keynote Speech, 2016.
397. Kohei Arai, Future technology for wearable computing in particular computer input device, Proceedings of the 1st Future Technology Conference at San Francisco, 2016.
398. Yoshinori Bando, Nan Bu, Osamu Fukuda, Hiroshi Okumura, Kohei Arai, Object classification using a deep convolutional neural network and its application to myoelectric hand control, Proceedings of the International Symposium on Artificial Life and Robotics (AROB2017), GS12, 2017.
399. Taiki Ishigaki, Mariko Oda, Kohei Arai, Learning content for improvement of spatial comprehension capability with 3D CG toy model for disabled children, Proceedings of the 3rd ADADA Conference of the Asian Society of Digital Art and Design, at the Kurume Institute of Technology, 2017.
400. Osamu Uchino, Isamu Morino, Tetsu Sakai, Toshiharu Izumi, Tomohiro Nagai, Takashi Shibata, Hiroshi Okumura, Kohei Arai, Ben Liley, Dave Pollard, Gerry Bagtasa, Lidar observation at TCCON site to investigate the influence of particles for GOSAT data, Proceedings of the IWGGMS 13, at Helsinki, Finland, 2017.
401. Kohei Arai, Human-Computer Interaction: HCI Next Generation, Proceedings of the ITNG 2017 (Keynote speech), 2017.
402. Asuka Noda, Osamu Fukuda, Hiroshi Okumura, Kohei Arai, Behavior analysis of a small animal using IoT sensor system, Proceedings of the ICIIBMS 2017, Artificial Intelligence, Robotics and Human-Computer Interaction, at Okinawa, 2017.
403. Mitsuki Doi, Osamu Fukuda, Hiroshi Okumura, Kohei Arai, Consultation sales system with a communication robot, Proceedings of the ICIIBMS 2017, Artificial Intelligence, Robotics and Human-Computer Interaction, at Okinawa, 2017.
404. Kohei Arai, Diatom monitoring from space, Proceedings of the SAI Computing Conference, in London, 2017.
405. Kohei Arai, AR based intelligent Learning content for physics, Proceedings of the SAI Intelligent Systems Conference, in London, 2017.
406. Kohei Arai, Phytoplankton identification with microscopic images using shape feature extracted by wavelet descriptor, Proceedings of the RIMS Joint Research Workshop of the Advanced Innovation Powered by Mathematics Platform, Signal analysis and time-frequency analysis, at Kyoto University, 2017.

407. Kohei Arai, Bigdata Platform for agricultural field monitoring and environmental monitoring, Proceedings of the 4th LISAT Symposium (Invited Speech), p.37, 2017.
408. Kohei Arai, Hiroshi Okumura, Shogo Kajiki, Disaster relief with satellite based synthetic aperture radar data, Proceedings of the SAI Future Technology Conference 2017, No.521, 1026-1029, in Vancouver, 2017.
409. Kohei Arai, Plankton of microscopic image recognition based on shape representation by wavelet descriptor, Proceedings of the Wavelet Theory and Applications to Engineering Workshop, A106, at Osaka University of Education, 2017.
410. Osamu Uchino, Isamu MORINO, Shinjun Uga, Tetsu Sakai, Tonohiro Naganaka, Tomo Yoshida, Taiki Hamano, Hitomi Sakaguchi, Hiroshi Okumura, Kohei Arai, Takashi Shibata, Benlilkey Gerry Bagtasa, Voltaire A. Velazco, Current Status of Lidar Observation at TCCON Sites of the World for GOSAT Verification, Proceedings of the 22nd Atmospheric Lidar Workshop, 2018.
411. Sandhyavitri Ari, Yusa Muhamad, Fajra Mardan, Sutikno Sigit, Kohei Arai, Mapping and Simulating Watershed Performances Based on GIS, Remote Sensing and SWAT, Proceedings of the International Conference on Advanced Civil and Environmental Engineering, ICAnCEE 2018, Bali, Indonesia.
412. Kohei Arai, Global Environmental Monitoring from Space, Keynote Speech at the International Conference on Advanced Civil and Environmental Engineering, ICAnCEE 2018, Bali, Indonesia.
413. Kohei Arai, Sentinel 1A SAR Data Analysis for Disaster Mitigation in Kyushu, Kyushu Branch of the Japanese Society on Remote Sensing, Special Lecture for Young Engineers on Remote Sensing, Nagasaki University, 2018.
414. Kohei Arai, Effectiveness of NEdT and Band 10 (8.3 um) of ASTER/TIR on SSST Estimation, Proceedings of the FICC Conference 2018, 744-748, .2018.
415. Luffi Mahardika, Anik Nur Hendayani, Heru Wahyn Herwanto, Kohei Arai, Operation of light tracker movement using Fuzzy logic control information and communication technology, Proceedings of the International Conference on IACT (ICOIACT 2018), Yogyakarta, 3D Parallel Session 3-D, 2018.
416. Anik Nur Handayani, Nuram Lathfah, Heru Wahyu Heruwanto, Rosa Andrie Asmara, Kohei Arai, Neural Network Bayesian Regularization Backpropagation to Solve Inverse Kinematics on Planar Manipulator, Proceedings of the 7th International Conference on Informatics, Electronics and Vision and the 2nd International Conference on Imaging, Vision and Pattern Recognition, ICIEV, iclVPR 2018.
417. Kohei Arai, Human-Computer Interaction: Next Generation, Special Lecture at Pakuan University, Indonesia, 2018.
418. Kohei Arai, Report on Vicarious Calibration and Image Quality Evaluation of LISA/LISAT, LAPAN Indonesia, May, 2018.
419. Kohei Arai, Methods for Vicarious Calibration and Image Quality Evaluation of LISA/LISAT, LAPAN Indonesia, April, 2018.
420. Kohei Arai, Band Combination Selection Method for SST Estimation with Satellite Data, Proceedings of the FICC Conference, Singapore, 1-5, 2018.
421. Kohei Arai, Mobile Phone Operations Just by Sight and Its Applications, Proceedings of the Computing Conference, London, 1-5, 2018.
422. Kohei Arai, Takashi Higuchi, Hiroshi Okumura, Hirofumi Ohyama, Shuji Kawakami, Kei Shiomi, Influence due to cirrus and thick aerosols on estimation of column CO<sub>2</sub> and CH<sub>4</sub> with GOSAT/FTS data, Abstracts of the 42nd COSPAR General Assembly, 60th Anniversary of COSPAR Congress, A1.1-0031-18, p.188, 2018.
423. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Afif Supianto, Kohei Arai, BandoAR; Real time text based detection system using augmented reality for media translator Banjar language to Indonesian with smart phone, Proceedings of the ICETAS 2018.
424. Kohei Arai, Method for Audible Representation of Meteorological Data, Proceedings of the IntelliSys Conference, London, 2018.
425. Kohei Arai, State of the Arts of Human-Computer Interaction, Keynote Speech at the 3rd International Conference on Technology and Vocational Education and Training, UNJ, Jakarta State University, 2018.
426. Kohei Arai, Global Environmental monitoring from Space, Keynote Speech at the 1st ICCEAS (International Collaboration Conference on Engineering and Applied Science), and ICAnCEE 2018, and ICDEMM 2018, Riau and Udayana Universities, 2018.
427. Herman Tolle, Kohei Arai, Aryo Pinandito, Head Pose Movement Control Systems using Smartphone as a New Multimodal Interaction, Proceedings of the SIET 2018.
428. Kohei Arai, Vicarious Calibration of LISA/LISAT, Invited Speech, Proceedings of the 5th LISAT Symposium 2018.
429. Kohei Arai, AI based Systems, Proceedings of the FTC Conference 2018, Vancouver, 2018.

430. Kohei Arai, AI Based Remote Sensing Bigdata Analysis, Special Lecture Hosted by Saga Prefecture Medical and Small Business Diagnostician Association, Hotel New Otani Saga, 2018.
431. Kohei Arai, Extraction of Dynamic Moving Feature of Rotating Objects with Wavelets, Workshop on Wavelet Theory and Engineering Applications at the Osaka Education University, 2018.
432. Kohei Arai, Report on 2020 Space Trip Related Activities of the Takeo Branch of the Japanese Young Astronautics Club, Brunch Leaders Workshop of the the Japanese Young Astronautics Club, 2018.
433. Kohei Arai, Global Environmental Monitoring from Space, Special Lecture at the National Institute of Technology, Kurume College, 2018.
434. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Afif Supianto, Kohei Arai, AR-Child: Analysis, evaluation and effect of marker based tracking method as learning media for kindergarten students, Proceedings of the APMAP 2019.
435. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Afif Supianto, Tsukasa Hirashima, Ika Safitri, Kohei Arai, Testing and effects of using m-learning as an alternative to interactive learning media in computer system learning on basic logic gate materials, Proceedings of the 5th ICCED 2019, 21, (Best paper award)
436. Kohei Arai, Service robot arm controlled by just by sight, Proceedings of the FICC Conference, San Francisco, 2019.
437. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Afif Supianto, Kohei Arai, AR-Child: Analysis, evaluation and effect of using augmented reality as a learning media for preschool children, Proceedings of the ICTechEdu 2019.
438. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Afif Supianto, Kohei Arai, AR-Child: Analysis, evaluation and effect of marker based tracking method as learning media for kindergarten students, Proceedings of the ICCID 2019.
439. Kohei Arai, Image Retrieval Method Based on Back-Projection, Proceedings of the CVC Conference 2019.
440. Kohei Arai, Sports Vision Based Tennis Player Training, Proceedings of the Computing Conference 2019
441. Kohei Arai, Intelligent Method for 3D Image Display with Semitransparent Object Representations, Proceedings of the IntelSys Conference 2019
442. Kohei Arai, Method for Estimation of Multiple Reflection, Scattering and Absorption in Mountainous Areas of Remote Sensing Satellite Data, Proceedings of the FTC Conference 2019
443. Anik Nur Hardayani, Dyah Lestari, Harits Rosyd, Mohammad Efendi, Aji Wibawa, Rosa Asumara, Kohei Arai, Real time monitoring visual impaired person geolocation and walking state activity using GPS, Proceedings of the SAIN 2019.
444. Rosa Asumara, Arie Rachmed Syulistyo, Gillang Al Azhar Indrazne Siradindin Anik Nur Hardayani, Kohei Arai, Real time wheeled soccer robot omnidirectional image object tracking using faster region based convolutional neural network, Proceedings of the SAIN 2019.
445. Anik Nur Hardayani, Dyah Lestari, Harits Rosyd Ar, Rosa Asamura, Kohei Arai, Monitoring of visual impaired person movement using wemos di mini GPS, Proceedings of the 6th International Conference on Electrical, Electronics and Information Engineering, ICEEIE, 2019.
446. Kohei Arai(Keynote Speech), Remote sensing satellite big data AI analysis, Proceedings of the Indonesian Section IEEE AESS/GRSS Chapter Conference, 2019.
447. Kohei Arai(Keynote Speech), AI and Remote Sensing Satellite Big Data Analysis, Proceedings of the 1st Annual Advanced Technology Applied Science and Engineering Conference, ATASEC 2019, Polytechnics State of Malang, 2019.
448. Kohei Arai, "Human-Computer Interaction, Computer Vision, Robot Vision", Prishtina International Summer University 2019,
449. Kohei Arai, State of the Arts on Human-Computer Interaction, Invited Special Speech on HCI, @Innovation Center Kosovo, At 17:00-19:00 on July 11 2019
450. Trieu Thi Nepo Tran, Isamu Morino, Osamu Uchino, Yukitomo Tsutsumi, Tetsu Sakai, Tomohiro Nagai, Akihiro Yamazaki, Hiroshi Okumura, Kohei Arai, Ben Liley, GOSAT series products validation with TCCOM Skyradiometer and lidar data, Proceedings of the JPGU-AGU Joint Meeting 2020.
451. Kohei Arai, Rainfall Observation and Estimation by AMSR, Polar Research Institute Workshop, February 2020
452. Aulia Akhrian Syahidi, Ahmad Afif Supianto, Herman Tolle, Kohei Arai, Augmented Reality in the Internet of Things (AR+ IoT): A Mapping Review and Current Trends, SIET'20, November 16-17, 2020, Malang, INDONESIA
453. Kohei Arai, Prediction of El Niño Southern Oscillation ENSO based on Wavelet analysis with optimal support length basis, 2020 RIMS joint research "Time-frequency frame and application to image processing", 2020

454. Isamu Morino, Satoshi Tsutsumi, Osamu Uchino, Hiroshi Oyama, Ryu Saito, Tran The Ngoc Trieu, Frey Matthias Max, Satoshi Sakai, Tomohiro Nagai, Hiroshi Okumura, Kohei Arai, Ben Lily, Yukio Yoshida, Tsuneo Matsunaga, Akihide Kamei, Makoto Saito, Hibiki Noda, Progress of verification of GOSAT and GOSAT-2 short wavelength infrared products, Atmospheric Chemistry Forum, 2020.
455. Kohei Arai, Artificial Intelligence: AI Now, FILKOM Tech Talks #2 webinar, Brawijaya University in Malang, on 23rd October 2020
456. Kohei Arai, Hayabusa2 returns to Earth, Sponsored by Kanzaki City Board of Education, Saga Prefecture, Social Education Division, Kanzaki City Ikiiki University Lecture, 2020
457. Kohei Arai, AI disaster prevention information system/traffic information system, Saga City training session lecture, 2020.
458. Kohei Arai, Data Science (AI) and Early Childhood Education (Art, Music, Literature, etc.), Nutrition, Nursing Care, Tourism Business Nishikyushu University FD Lecture, 2020.
459. Aulia Akhrian Syahidi, Herman Tolle, Ahmad Atif Spiyanto, Kohei Arai, Augmented Reality in the Internet of Things (AR+IoT): A Mapping Review and Current Trends, International Seminar on Application for Technology of Information and Communication 2021, paper #1570711776, 2021.
460. Anik Nur Handayani, Soraya Mustila, Wendy Kurniawan, Rosa Andrie Asmara, Dyah Lestari, Kohei Arai, Design of Virtual Machine Collaboration on Analog Electronics Course, 1st International Conference on Electrical and Information Technology (IEIT) 2021.
461. Wu Yuan, Oda Mariko, Tatsumi Yasuaki, Kono Hiroshi, Lee Richard, Hisaka Ryosuke, Arai Kohei, Attempt of remote group work in regional problem-solving AI education, Education System Information Society 46th National Assembly PR0121, 2021
462. Kohei Arai, Circle Feature Extraction from Remote Sensing Satellite Images Based on Polar Coordinate Representation of Wavelets, Proceedings of the FICC Conference 2021, 2021.
463. Kohei Arai<sup>1</sup>, Osamu Shigetomi<sup>2</sup>, Hideki Ohtsubo<sup>2</sup>, Eri Ohya<sup>2</sup>, Prediction of Isoflavone Content in Soybeans with Sentinel-2 Optical Sensor Data by Means of Regressive Analysis, Proceedings of the IntelliSys Conference 2021, 2021.
464. Kohei Arai, "Change your work from tomorrow" Concept and success stories of digital technology utilization, sponsored by Saga City Productivity Improvement Promotion Support Office, Productivity Improvement Seminar @ Microsoft AI & Innovation Center, Aug.30 2021
465. Kohei Arai, Method for Web. GIS System Applicable to Assimilation Model Database Constructions, Proceedings of the FTC Conference 2021, 2021.
466. Kohei Arai, New Spatial Feature Descriptor based on Wavelet Transformation: Wavelet Descriptor, Proceedings of the FICC Conference 2022, 2022.
467. Xingming Liang, Quanhua Liu and Kohei Arai, Initial Assessment of Deep Learning-based Daytime Clear-Sky Radiance for VIIRS, Proceedings of the FICC Conference 2022, 2022.
468. Kohei Arai, Soybean Quality Estimation with Sentinel-2 of Optical Sensor Data, General Lecture of Postgraduate Program on Computer Science IPB "Satellite Image Processing for Smart Agriculture and Forestry" 20 October 2021, Time: 10.00 - 12.00 WIB (Jakarta time), 2021.
469. Kohei Arai, How to advance university DX, Lecture hosted by the Kyushu Area Private Universities Administrative Liaison Council, December 17, 2021, Nishikyushu University, 2021.
470. Keimoto Kure, Yutaka Matsumoto, Minoru Shimazoe, Mariko Oda, Kohei Arai, Experimental research on the shear strength of RC columns with single sleeve walls, Part 2: Construction of a crack classification model using image recognition using AI, Architectural Institute of Japan Tournament, 2022
471. Kohei Arai, Hayabusa2 returns to Earth, sponsored by Kanzaki City Board of Education, Saga Prefecture, Social Education Division, Kanzaki City Ikiiki University Lecture, 2020.
472. Kohei Arai, AI disaster prevention information system/traffic information system, Saga City training session lecture, 2020.
473. Kohei Arai, Data Science (AI) and Early Childhood Education (Art, Music, Literature, etc.), Nutrition, Nursing Care, Tourism Business Nishikyushu University FD Lecture, 2020.
474. Kohei Arai, "Hayabusa2" reveals what's amazing ~The universe seen from asteroid samples~, Yumesa University Open Campus Memorial Lecture, 2021/3/4
475. Kohei Arai, "How to change your work from tomorrow" Concepts and success stories of digital technology utilization, Sponsored by Saga City Productivity Improvement Promotion Support Office, Productivity Improvement Seminar@Microsoft AI & Innovation Center, Aug.30 2021
476. Kohei Arai, Communication support using gaze input, Yumesa University lecture @ Saga Prefectural Sports Hall 2F Conference Room, Sep. 22 2021
477. Kohei Arai, Soybean Quality Estimation with Sentinel-2 of Optical Sensor Data, General Lecture of Postgraduate Program on Computer Science IPB "Satellite Image Processing for Smart Agriculture and Forestry" Wednesday 20 October 2021, Time: 10.00 – 12.00 WIB (Jakarta time)
478. Kohei Arai, Visual computer input system and its applications, Yumesa University lecture @Saga Prefecture Avance 4F Lecture Room, Nov.24, 2021



479. Kohei Arai, Sea ice observation using AMSR, AMSR development secrets, Microwave observation research seminar @IPR, 12/10 2021.
480. Kohei Arai, Soybean Quality Estimation with Sentinel-2 of Optical Sensor Data, General Lecture of Postgraduate Program on Computer Science IPB “Satellite Image Processing for Smart Agriculture and Forestry” Wednesday 20 October 2021, Time: 10.00 – 12.00 WIB (Jakarta time )
481. Kohei Arai, Viewing Saga from Space (Introduction to Optics), JAXAGA School (lecture for lower grade elementary school students), December 5, 2021, Saga Space Science Museum, 2021.
482. Kohei Arai, Viewing Saga from Space (Basic Optics), JAXAGA School (lecture for upper elementary school students), December 12, 2021, Saga Space Science Museum, 2021.
483. Kohei Arai, Knowing the Universe, Knowing Saga (Introduction to Optics), JAXAGA School (Lecture for Junior High School Students), December 19, 2021, Saga Prefectural Space Science Museum, 2021.
484. Kohei Arai, How to advance university DX, Lecture hosted by the Kyushu Area Private Universities Administrative Liaison Council, December 17, 2021, Nishikyushu University, 2021.
485. Kohei Arai, Data Science Course for Regional Revitalization (1),(2), January 8, 2022, Nishi-Kyushu University Health Support Center, 2022.
486. Kohei Arai, Data Science Course for Regional Revitalization (3),(4), January 15, 2022, Nishikyushu University Health Support Center, 2022.
487. Kohei Arai, Data Science Course for Regional Revitalization (5), (6), (7), January 29, 2022, Nishi-Kyushu University Health Support Center, 2022.
488. Kohei Arai, Data Science Course for Regional Revitalization (8),(9),(10), February 5, 2022, Nishikyushu University Health Support Center, 2022.
489. Kohei Arai, Data Science Course for Regional Revitalization (11),(12),(13), February 12, 2022, Nishikyushu University Health Support Center, 2022.
490. Kohei Arai, Data Science Course for Regional Revitalization (14),(15), February 26, 2022, Nishikyushu University Health Support Center, 2022.
491. Kohei Arai, Pioneer of digital nutrition using medical big data, May 7, 2022, Nishi-Kyushu University Graduate School of Nutrition Department Doctoral Program Commemoration Academic Lecture, 2022
492. Kohei Arai, AI utilization in DL agriculture field considering physical model, Tokyo Big Sight (South Exhibition Building) 6th AI/Artificial Intelligence EXPO, 2022
493. Kohei Arai, Evaluation of Kurume Kasuri pattern deviation based on DL learning, Tokyo Big Sight (South Exhibition Building) 6th AI/Artificial Intelligence EXPO, 2022
494. Kohei Arai, Japan Space Youth Organization, Takeo Branch, JAXA Space Education Center, Space Education Regional Forum in Saga @ Saga Prefectural Space Science Museum, June 18, 2022
495. Kohei Arai, Current Status of the Artificial Intelligence, Brawijaya University, 17 May 2022
496. Kohei Arai, Application of the Artificial Intelligence, Brawijaya University, 24 May 2022
497. Kohei Arai, Collaborative research works on Artificial Intelligence, Brawijaya University, 31 May 2022.
498. Arwin Datumaya Wahyudi Sumari, Rosa Andrie Asmara, Kohei Arai, Anik Nur Handayani, Aircraft Type Identification Using Radar Cross Section (RCS), Speed, and Altitude from RADAR Data Using Supervised Machine Learning, Proceedings of the IEIT-2022, The 2nd International Conference on Internet, Education and Information Technology (IEIT 2022), 15-16 Sep. 2022.
499. Arwin Datumaya Wahyudi Sumari; Rosa Andrie Asmara; Helda Risman; Ika Noer Syamsiana; Anik Nur Handayani; Kohei Arai Black Flight Identification Using Radar Cross Section (RCS), Speed, and Altitude from RADAR Data using Supervised Machine Learning, 2022 International Conference on Electrical and Information Technology (IEIT)
500. Kohei Arai, Kenta Azuma, Application of the Proposed Thresholding Method for Rice Paddy Field Detection with Radarsat-2 SAR Imagery Data, Proceedings of the Computing Conference 2022, Vol.1 836-845, Springer 2022.
501. Kohei Arai, Current Status of AI, Special Lecture on AI and AI Applications, at Brawijaya University, 31 May 2022.
502. Kohei Arai, AI Applications, Special Lecture on AI and AI Applications, at Brawijaya University, 31 May 2022.
503. Osamu Uchino<sup>1</sup> Yoshitaka Kamil Isamu Morino<sup>1</sup> Atsushi Ugajin<sup>1</sup> Tomoaki Nishizawa<sup>1</sup> Atsushi Shimizu<sup>1</sup> Tsuneo Matsunaga<sup>1</sup>, Tomohiro Nagai<sup>2</sup> Satoshi Sakai<sup>2</sup> Hiroshi Okumura<sup>3</sup> Kohei Arai, Altitude observed in Saga using differential absorption lidar On ozone events below 2 km, 40th Laser Sensing Symposium (September 1-2, Fukuyama City) 2022.
504. Aulia Akhrian Syahidi Kohei Arai, Wearable Technology Application for Banjar Language Translator to Support Ease of Communication: Prototyping and Sustainability Opportunities, Proceedings of the ICSINTESA 2022 Conference, Sep. 2022.

505. Kohei Arai, Latest Trends in Artificial Intelligence, Yumesaga University Tosu City Social Welfare Hall, 2022.
506. Kohei Arai, State of the art of AI and its applications, (keynote speech) Jakarta EECISI 2022 (Virtual Conf.)
507. Kohei Arai, Latest Trends in Artificial Intelligence, Yumesa University Saga Prefectural Sports Hall 3F Large Conference Room, 2022.
508. Kohei Arai, Latest Trends in Artificial Intelligence, Yumesaga University Karatsu City Senior Citizens Fureai Hall Rifure Training Room, 2022
509. Kohei Arai, Latest Trends in Artificial Intelligence, Yumesaga University Saga Avance 3rd Training Room, 2022.
510. Wu Jiyuan, Yutaka Matsumoto, Mariko Oda, Minoru Shimazoe, Kohei Arai, Experimental research on the shear strength of RC columns with one sleeve wall Part 2, Construction of a crack classification model using image recognition using AI, Architectural Institute of Japan Conference Academic Lecture (Hokkaido), pp.285-286, 2022.9
511. Shotaro Tsukahara\*1 Keiyuan Kure\*2 Yutaka Matsumoto\*3 Mariko Oda\*3 Kohei Arai, Experimental research on shear strength evaluation of RC columns with side walls on one side - Part 2 Calculation of crack length using image processing System Development, 2022 Architectural Institute of Japan Kyushu Branch Research Presentation, 2023.
512. Kohei Arai, Agriculture using AI and big data, research method training related to tea smart agricultural technology, Oita Prefecture Agriculture, Forestry and Fisheries Research and Guidance Center, 2023.
513. Kohei Arai, Latest Trends in Artificial Intelligence, Kashima Citizen Exchange Center Multipurpose Room, Yumesa University Lecture, 2023.
514. Kohei Arai, AI Artificial Intelligence and Its Applications as well as Current Status of Applied AI Research, Special Lecture for Faculty of Engineering, University of Bengkulu, Indonesia, 2023.
515. Kohei Arai, Practical course on data science using Python etc. to improve productivity, Nishi-Kyushu University Open Lecture, 2023.
516. Kohei Arai, Practical course on data analytics using no-code, low-code, etc. for a data-driven society, Nishi-Kyushu University Open Lecture, 2023.
517. Kohei Arai, Kyushu Regional Satellite Data Usage Trends, 1st Kyushu Space Development Business Exchange Meeting sponsored by Kyushu Economic Federation and Kyushu Aerospace Development Promotion Council, 2023.
518. Osamu Uchino<sup>1,2</sup>, Tetsu Sakai<sup>2</sup>, Isamu Morino<sup>1</sup>, Tomohiro Nagai<sup>2</sup>, Hiroshi Okumura<sup>3</sup>, Yoshitaka Jin<sup>1</sup>, Atsushi Ugajin<sup>1</sup>, Tomoaki Nishizawa<sup>1</sup>, Atsushi Shimizu<sup>1</sup>, Tsuneo Matsunaga<sup>1</sup>, Kohei Arai<sup>3</sup>, Decadal (2011-2020) stratospheric aerosol variability observed by lidar over Saga in Japan, Laser Sensing Society
519. Osamu Uchino (Environmental Research Institute), Tetsu Sakai (Meteorological Research Institute), Isamu Morino (Environmental Research Institute), Tomohiro Nagai (Meteorological Research Institute), Hiroshi Okumura (Saga University), Yoshitaka Kami, Atsushi Ugajin, Tomoaki Nishizawa, Atsushi Shimizu, Tsuneo Matsunaga (Environmental Research Institute), Kohei Arai (Saga University), 25th Atmospheric Lidar Study Group Program Sponsored by Laser General Incorporated Association Sensing Society
520. Taiga Haruta, Mariko Oda, Kohei Arai, Daiki Ishigaki, e-learning support system for children with disabilities using AI, Welfare Information Technology Research Group (WIT), 2023
521. Anik Nur Handayani<sup>1\*</sup>, Salsabila Sonia Nafista<sup>1</sup>, Arya Kusumawardana<sup>1</sup>, Hakkun Elmunsyah<sup>1</sup>, Kohei Arai<sup>2</sup> and Rosa Andrie Asmara<sup>3</sup>. #1570931558 ('Development of Interactive Virtual Laboratory Media with Tinkercad Platform on Analog Electronics Material') for IEIT 2023.
522. Anik Nur Handayani <sup>1,\*</sup>, Nabila Nur Fitrianti<sup>1</sup>, Arya Kusumawardana <sup>1</sup>, Hakkun Elmunsyah<sup>1</sup>, Kohei Arai<sup>2</sup>, Rosa Andrie Asmara<sup>3</sup>, 1570931557 ('Development of Autodesk-Based Digital Teaching Materials as a Support for Basic Digital Engineering Learning in Vocational Schools') for IEIT 2023.
523. Rosa Andrie Nofrian Deny Hendrawan Anik Handayani Kohei Arai, Basketball Activity Recognition Using Supervised Machine Learning Implemented on Tizen OS Smartwatch,
524. Kohei Arai, PASCO, ERDAS IMAGINE machine learning and how to use the machine learning program released for free, ERDAS IMAGINE USER FORUM Japan 2023
525. Kohei Arai, PASCO, Time series analysis using free satellites, ERDAS IMAGINE USER FORUM Japan 2023.
526. Kohei Arai, Saga Prefectural Space Science Museum, JAXAGA School Lecture
527. Yushin Nakaoka, Kohei Arai, Osamu Fukuda, Nobuhiko Yamaguchi, Wen Liang Yeoh, Hiroshi Okumura, Application of Generative Adversarial Network: GAN to disaster damage monitoring, SPIE Sensors + Imaging at Amsterdam, September 04, 2023-September 05, Tracking # : ESI23R-RS107-42, 2023.

528. Minoru Shimazoe\*, Kohei Arai\*,\*\*, Mariko Oda, Hyperparameter tuning for Kurume Kasuri pattern shift classification using Optuna, 2023 IEICE Kyushu Branch Student Conference Lecture Proceedings, D25, 2023 .
529. Arbnor Pajaziti, Kohei Arai, Enrichment of engineering laboratories with equipment, build by graduated students, Proceedings of the 18th Alb-Science Conference on ARTIFICIAL INTELLIGENCE IN EDUCATION AND SCIENTIFIC RESEARCH, Prishtina University, 13-14 Oct. 2023.
530. Anik Nur Handayani, Nabila Nur Fitrianti, Arya Kusumawardana, Hakkun Elmunsyah, Kohei Arai and Rosa Andrie Asmara, Development of Autodesk-based Digital Teaching Materials as a Support for Basic Digital Engineering Learning in Vocational Schools, I-CORE 2023, 1570966164, The 3rd International Conference on Renewable Energy (I-CORE) 2023.
531. Anik Nur Handayani, Salsabila Sonia Nafista, Arya Kusumawardana, Hakkun Elmunsyah, Kohei Arai and Rosa Andrie Asmara, 1570966164 ('Development of Interactive Virtual Laboratory Media with Tinkercad Platform on Analog Electronics Material') to The 3rd International Conference on Renewable Energy (I-CORE) 2023.
532. Kohei Arai, Nonlinear Merge and Split Based Image Clustering Method Through Changing the Number of Clusters, Proceedings of the Future Information and Communication Conference 2023.
533. Kohei Arai and XingMing Liang, Simultaneous Estimation Method of Mutually Correlated Geophysical Parameters and Its Application for Aerosol Parameter Estimation, Proceedings of the Computing Conference 2023.
534. Kohei Arai, Kenta Azuma, Ocean Wind Speed Retrieval Method with a Relative Wind Direction using Microwave Radiometer Data, Proceedings of the Intelligent Systems Conference 2023.
535. Kohei Arai, Method for Creation of Merged Dataset for SST Estimation with Thermal and Microwave Radiometer Data, Proceedings of the Future Technology Conference 2023.
536. Hitoshi Sawada, Mariko Oda, Kohei Arai, Image classification in strawberry ripeness diagnosis system, IEICE General Conference, 2024.
537. Hirohiro Beppu, Yuya Ifuku, Kohei Arai, Mariko Oda, Clothes check for construction workers using AI object detection technology, IEICE General Conference, 2024.
538. Yuya Ifuku, Mariko Oda, Kohei Arai, Tracking of workers using image recognition technology, detection and warning of intrusion into dangerous areas, IEICE General Conference, 2024.
539. Taiga Haruta, Mariko Oda, Kohei Arai, Yasuomi Matsunaga, Classification of posture and facial expressions to support the education of children with disabilities using machine learning, IEICE General Conference, 2024.
540. Minoru Shimazoe, Kohei Arai, Mariko Oda, Classification of pattern deviation in Kurume Kasuri using PyCaret, IEICE General Conference, 2024.
- 541.