

Information Architecture

Laboratory	Title
Fujimura	An Indoor Positioning Algorithm without Complicated Initialization Process based on Beacon Technology
Fujimura	Maintenance scheduling optimization in Continuous processing plants using Genetic Algorithm: A case
Fujimura	Dynamic Relocation for Free-floating Bike Sharing System based on ACO
Fujimura	Error Sample Card Generation and Detection with DenseNet
Fujimura	Simulative Analysis of Passenger Flow on Urban Rail Transit
Furuzuki	Quasi-linear SVM with Local Offset for High Dimensional Data Classification
Furuzuki	Return Prediction based on Discriminating Market Styles with Reinforcement Learning
Furuzuki	Efficient Multi-Category Keypoints Detection of Apparel Using Shifted Pyramid Networks
Furuzuki	An Improved Attention Mechanism for Sentence Level Sentiment Analysis
Furuzuki	Arrhythmias Detection Based on Electrocardiogram Using Deep Learning Approach
Furuzuki	A Deep Reinforcement Learning Algorithm for the Protein Folding Problem in the HP Lattice Model
Furuzuki	A Study of Generative Adversarial Network Based Image Compression
Iwaihara	Neural Architectures for Joint Named Entity Recognition and Disambiguation
Iwaihara	Two-Encoder Pointer-Generator Network for Summarizing Segments of Long Articles
Iwaihara	Discovering Latent Types of SNS Users' Posting Activities
Iwaihara	Detection of Bursty and Significant Keyphrases from Wikipedia Edit History
Kamata	Multi-Channel Bilateral Filter using PCA-based Guide Image
Kamata	Fundus Image Classification for Diabetic Retinopathy using Disease Severity Grading
Kamata	Fast Bilateral Filtering using Least Squares Polynomial Decomposition
Kamata	Densely Connected AutoEncoders for Lossy Image Compression
Kamata	Forgery Image Detection via Mask Filter Banks based FCN
Koyanagi	Improvement of Range Query Processing of Spatial Data Based on HBase
Lepage	Extraction of triplets of entities and relations by modeling confidence
Lepage	Numerical methods for retrieval and adaptation in Nagao's EBMT model
Lepage	PDF to LaTeX reverse engineering for the content analysis of ACL articles
Matsumaru	Stability Improvement of Monocular Camera Pose Estimation in A Partially Non-Static Environment
Matsumaru	Short Range Pointing System using Depth Camera to Assist Keyboard Operation
J. Tanaka	Enhance Human-Computer Interaction Using External Robot Agent in Self-healthcare System
Yoshie	Automatic region growing property model for multi-directional text reading in natural scene images
Yoshie	Accelerating super-resolution using Generative Adversarial Network
Yoshie	Image search from sketch by modified model of GAN

Production Systems

Laboratory	Title
Lee	Weight Initialization of Neural Network in Neuro PID Controller
Miyake	Study on H ⁺ interactive communication between biodevice and biology
Miyake	Study on electrochemical molecular delivery into adhesive cells through Au-based nanostraws
Miyake	Study on a wireless powered smart soft contact lens for bioapplications
Murata	Stock Market Trend Prediction with Sentiment Analysis based on LSTM Neural Network
Murata	Production Planning with Product Life Cycle Management to Maximize Total Sales Profits in Closed Loop
Murata	Short-term electricity load forecasting based on Feature Engineering with Daily Demand Similarity and PM
Murata	Optimal Electric Vehicle Routing for Minimizing Electrical Energy Consumption Based on Hybrid Genetic
Murata	Multi-Mode Resource Constrained Project Scheduling for Online Plant Maintenance by Goal Programming
Murata	Module Configuration Planning under Dynamic Demand with consideration of Service Level
Ogai	Nighttime Vehicle Identification Algorithm by Image Processing with Monocular Camera
Ogai	Path tracking control and simulation using NMPC
Ogai	Traffic Sign Recognition for Autonomous Driving System Based on Multiscale Fast Recognition Method
Ogai	A way to create vehicle platooning on expressway based on flocking
Ogai	Dynamic Obstacle Avoidance for Autonomous Driving Based on Improved Artificial Potential Field
Ogai	Path Tracking for Autonomous Vehicle Based on Improved Pure Pursuit Algorithm and Model Predictive
Ogai	Real Time Nighttime Pedestrian Detection Based on Key Region Motion Perception CNN
Ogai	Obstacle Detection and Avoidance for Autonomous Driving by Using Ultrasonic Sensors
Ogai	Real-Time Multi-Object Detection and Tracking Based on GPU-Acceleration and MDPs
Shimizu	Development of new technique to improve transillumination images of animal body by deep learning
Shimizu	Functional imaging of human body by continuous wavelength spectroscopy of transillumination image
Shimizu	Estimation of absorber depth in transillumination image by deep learning
E. Tanaka	Standing-up Assistance Chair Using User's Power Based on Practical Human Motion
E. Tanaka	Evaluation of a multi-thread-worm and helical gear performance and application to the brake function for
Tateno	Development of indoor positioning system using ZigBee
Tatsumi	A study on stress relaxation structure on SiC power module using Ni micro plate bonding
Tatsumi	Research on synthesis process of SiC by using SiO and hydrocarbon
Tatsumi	A Study on long term reliability of Ni micro plating bonding using resonant type fatigue testing machine
Tatsumi	Study on Ni micro-plating bonding technology for semiconductor packaging using Cu core ball
Tatsumi	A study on low temperature connection technology for stainless steel using Ni micro plating bonding
Tatsumi	Study on interconnection technology of power module with embedded SiC devices
Tatsumi	Study on bonding technology using Ni nano-particles for SiC power devices
Tatsumi	Study on large-diameter Ag wedge bonding on various metal pads for power devices
Tatsumi	Effect of Cu addition on the microstructure evolution and reliability of Ni -Sn solder joints
Tatsumi	Dielectric breakdown characteristics of epoxy-mica tape insulation system

Integrated Systems

Laboratory	Title
Shinohara	A low energy consumption comparator with small input offset voltage for TRNG
Takahata	A waveguide-based bidirectional optical delay unit using Bragg reflectors for signal processing