

情報アーキテクチャ分野

研究室	修士論文タイトル
藤村	An Approach to solve Vehicle Routing Problem with Stochastic Demand using Safety Stocks by Improved PSO-GA
藤村	Maintenance Tools Recognition Based on Deep Learning
藤村	Surface Defect Detection based on Fully Convolutional Networks
藤村	Electric Logistics Vehicle Routing Problem with Time Windows based on Genetic Algorithm
藤村	Short-term Traffic Flow Prediction with Up-and-Downstream Spatial-temporal Relationship based on LSTM
藤村	Short-term Power Consumption Prediction based on Deep Learning
藤村	A General Product Identification Method for Mass Customization based on Deep Learning
古月	Monocular Camera Distance Measurement Based on Keypoint Detection
古月	A Study of Action Recognition Based on Group-of-Picture
古月	GAN with Reinforcement Learning for Style-Specific Music Generation
古月	Celestial Spectral Classification Based on Deep Learning Approach
古月	A Study of Lip Reading Using Deep Neural Networks
古月	Arbitrary Scale Image Super-Resolution Based on Deep Residual Networks
岩井原	Finding Wikipedia article sets that explain bursty edits
岩井原	Weakly-supervised neural categorization of Wikipedia articles
岩井原	Utilizing Latent Posting Style for Authorship Attribution on Short Texts
岩井原	Click-count weighted PageRank algorithm for ranking web articles and quality assessment
鎌田	ADHD Automatic Diagnosis via Fractal Dimension Complexity Map for Structural MRI
鎌田	Data Augmentation for Historical Document Images via Categorical Cascaded Variational Auto-Encoder
鎌田	A Ranking Based Attention Approach for Visual Tracking
鎌田	Edge-guided Hierarchically Nested Network for Real-time Visual Semantic Segmentation
鎌田	Hybrid Feature based Pyramid Structured CNN for Texture Classification
小柳	Study on Secondary Indexing for Efficient HBase Query
小柳	Improving the Process of Packet Matching in Software-defined Networking Switches
小柳	A Method of Networking Policies' Conflict Detection Based-on SDN
小柳	Improvement of Checkpoint Mechanism on Apache Flink
小柳	Improvement of Spark Caching Mechanism
ルパージュ	Detection of objects in scientific documents: from PDF to LaTeX
ルパージュ	A study on unsupervised word embedding mapping
ルパージュ	Generating abstracts for NLP articles: relevant words and how to find them
松丸	RGB画像に基づくランダムピッキング作業における部分的に見えるペットボトルの銘柄認識

田中(二)	Online Virtual Try-On System Based On Personalized Avatar
田中(二)	Augmented Reality with Shared Augmented Object and Interaction between HMD and Non-HMD Users
田中(二)	Spatial Recognition Based Mixed-reality Shop System Providing Responsive Store Layout
田中(二)	Retrieving Episodic Memory in Lifelog System Focusing on Daily Conversation
田中(二)	Sliding Gaze: Head Movement and Touch Gesture Based Target Selection Technology
田中(二)	Research on Customized and Secure Augmented Reality
田中(二)	Spatial Note System: Combining the Advantages of SNS and Traditional Note
田中(二)	Personal Health-tracking System Focused on Social Communication to Get Motivation
坪川	Study on planar light waveguides with strip-loaded slot structure
坪川	Design of compact integrated polarization beam splitters using slot waveguide structures
坪川	Bending sensitivity and loss characteristics of the hetero-core fibers with squeezed shapes
坪川	フォトニッククリスタルファイバを用いたヘテロコア光ファイバ屈折率センサの研究
坪川	An optimized scheme for routing, spectrum and core assignment in SDM-EONs
坪川	A study of modal crosstalk-aware routing and spectrum assignment problem in elastic optical networks with multicore few-mode fibers
吉江	An attentive neural network model for extractive summarization of scientific papers
吉江	Human action recognition by 3-dimensional CNN model with moving area detection
吉江	Bitcoin price prediction using blockchain data based on LSTM
吉江	Document representation on unlabeled small corpus using BERT transfer learning and fine-tuning
吉江	Generating semantic word association graph for human resource management
吉江	Edge guided image outpainting with high fidelity
吉江	Dense target image annotation based on deep learning

生産システム分野

研究室	修士論文タイトル
犬石	Process and Device Structure Design of High Voltage N-Channel LDMOS on Bulk Si
犬石	Study on Backside Layout Design of Reverse-Conducting IGBT(RC-IGBT)
犬石	Device Structure Design and Thermal Modeling of High Voltage SOI LDMOS
犬石	Optimal Structure Design and Analysis of Reverse Conducting IGBT (RC-IGBT)
犬石	Super-Junction LDMOS on SOI with Termination Structures for High Voltage Operation
犬島	Improved Pure Pursuit Path Tracking In Autoware based COMS Autonomous Driving
犬島	水門扉力学における構造学的検討
犬島	Vehicle autonomous driving control with riding comfort realized by combined driver model
犬島	Raindrop Removal and Object Detection for Autonomous Driving System Based on Generative Adversarial Network
犬島	An agricultural autonomous working platform based on crawler robot
犬島	An Obstacle Avoidance System for Autonomous Driving based on Dynamic Trajectory Planning
犬島	Robust Robot Localization System Based on IMU and Stereo Camera Fusion
犬島	High Accuracy Positioning and Mapping System with Low-cost GNSS Receiver
李	Dynamically Weighted and Simplified Diagonal A* algorithm with LERP Path Smoothing Method
李	B-Spline-Decomposition-based Modeling-free Iteration Learning Control Considering Disturbance for Electric Cylinder
李	Deep Reinforcement Learning Agent with High Flexible Action and Multiple Reward for Adaptive Isolated Intersection Traffic Signal Control
李	Modified PID Neural Network Control for Binary Power Plant
李	Path Planning Using Modified GA Considering Penalty Based on Satellite Image Feature Segmentation
李	Heap and Safe Corner A* algorithm Combined with Backtracking Task Assignment for Multiple Rescue Robots
三宅	Enzymatic powered iontophoretic patch for drug delivery into mammal skin
三宅	Power generation from lactate acid in sweat using enzyme/CNT composite films
三宅	Wireless-powered electrochromic soft contact lens using PEDOT/Polyurethane composite films
三宅	有機電極上への膜タンパク質形成および水素イオン制御機構の構築
村田	Optimizing Dynamic VRP for On-demand bus with Time Window and Uncertain Traveling Time
村田	Research Delivery Path Planning for Relief Supply with Quickest Transshipment Problem
村田	Risk Assessment of New Product Development Process with Concurrent Engineering based on Stochastic Net
村田	The revised title of my master thesis is : PM2.5 Concentration Forecast Method based on Empirical Mode Decomposition and Random Forest.
村田	Optimizing Site and Size of EV Charging Station for Cost and Service Improvement under Stochastic Traffic flow
村田	Recommender System based on Bayesian Matrix Factorization by using User Rating Data with Sparsity and User Preference Bias
村田	Micro Grid Energy Operation Planning under Dynamic Demand with Uncertain Renewable Energy Generation

大貝	ブロックチェーン技術に基づく共有電子カルテの開発
大貝	Path planning and tracking system for automatic valet parking
大貝	Obstacle detection and tracking based on laser range finder for autonomous driving system
大貝	Faster object detection based on Faster-RCNN and Kalman Filter in autonomous driving
清水	Optical technique for noninvasive measurement of blood turbidity using differential principle
清水	Attempt to estimate absorber depth in two-dimensional near-infrared transillumination image
清水	Development of real-time system for near-infrared functional transillumination imaging
清水	Computer simulation of light propagation in human tissue for noninvasive measurement of blood turbidity
田中(英)	Establishment of the Relation between Emotion Evaluation and Walking Condition
田中(英)	Design of a Wheelchair for Assisting the Elderly to Stand up and Move on Stairs
田中(英)	Development of Body Data Recognition System based on Sitting and Standing-up Motion
田中(英)	Motion Trajectory Optimization of an Assistive Device While Walking on Stairs
田中(英)	Development of Predictive Control Based on Kalman Filter for Kinect-Based Upper-Limb Assistance Device
田中(英)	Development of In-Situ Portable Laser Diagnostic System for Gear Surface Damage
立野	Development of Activity-based Pedestrian Dead Reckoning Method
立野	Development of Drowsiness Detection System Based on Heart Rate Features
立野	Improvement of RSSI Measurement Method in Mesh Network for Indoor Positioning System
立野	Development of external corrosion predictive model for insulated pipes in petrochemical plants
立野	Development of Human Detection System Using Infrared Array Sensor
立野	Human detection in the smart house system with mobile platform
立野	機械学習を用いたリアルタイム的室内位置推定システムの改善
立野	Gestures Recognition System for VR Input Based on Electromyography Signal
立野	圧覚を用いた義手の感覚フィードバックシステムの開発
立野	Improvement of Multilateration Methods Using RSSI for Indoor Positioning System
巽	Dielectric breakdown characteristics of epoxy-mica tape with nano-filler insulation system

集積システム分野

研究室	修士論文タイトル
池永	Temporal Constraints and Block Weighting Judgement Based Mismatch Removal for High Frame Rate and Ultra-Low Delay Matching System
池永	Body Part Categorization Based Tracking with Correction by Temporal Positions for Volleyball Spike Height Analysis
池永	Temporally Forward Nonlinear Scale Space with Pixel-Level Pre-Adjustment for High Frame Rate and Ultra-Low Delay A-KAZE Matching System
池永	Human Body Parts Model Combined Trajectories Feature Based Volleyball Player Receive Reaction Time Detection
池永	Team Formation Mapping with Sequential Motion and Relative Spatial Features Based Event Evaluation for Automatic Data Volley
木村	Majority-Inverter Graph Optimization Using Widened Selection Window
木村	Approximate Multiplier Using Reordered 4-2 Compressors with OR-based Error Compensation
木村	Weighted Random Forest Training Acceleration on FPGA with Combined Gini and Weight Computation
木村	A Parallel FPGA-based Accelerator with Compensating Normalized Quantization Error for Convolutional Neural Networks
木村	An FPGA-based Convolutional Neural Network with High Dynamic Resource Utilization Using Partial Reconfiguration
木村	Radix-4 Multiplier Based on An Approximate Encoder and Approximate Decoders
大澤	Co-Design of Binary Process-In-Memory ReRAM Array and DNN Model Optimization Algorithm
大澤	High-Density 1T1MTJ Memory with Row-Driven Source Line in Block Shunt Architecture
大澤	A low power MAC core circuit based on 1T1C DRAM and its implementation into a neuromorphic computing system
大澤	Array design of high-density emerging memories making clamped bit-line sense amplifier compatible with dummy cell average read scheme
大澤	Accurate Measurement Scheme for Read Sneak Current in ReRAM Crossbar Array with Data Storage Pattern Dependencies
大澤	Autonomous Refresh of a Hybrid 4TDRAM Applicable to Embedded Memories
大澤	A New Cell Array Design Using MTJ/CMOS Hybrid Circuits with Power-On Data Loading Robustness against Vth Fluctuation
大澤	Array Design of 6T2MTJ STT-MRAM with Source-line-controlled Background Write Scheme
大澤	A Compact Model of Magnetic Tunnel Junctions Usable in De-Facto Standard Circuit Simulators Based on Switching Probability
篠原	Small Area and High Output Rate Post Processing Circuit by 7 bit Von Neumann Method
篠原	A 7T SRAM PUF with Variable Equalization Signal for Low Power
篠原	Improved FDPL for SCA-Resistance and Application to AES S-box Circuit
篠原	A Latch-Based True Random Number Generator with Tunable Capacitance for Wide Supply Voltage Range.
篠原	Machine Learning Attack Analysis and Implementation of Strong PUF
篠原	Mismatch Model Based on Bias Generator Implanted EEPUF for SRAM Physical Unclonable Function Behavior Learning and Masking Refinement
篠原	NMOS Hot Carrier Injection Characteristics Analysis and Its Application to SRAM PUF Stability Reinforcement
篠原	A SRAM-Based Strong PUF Utilizing Scrambling Scheme
篠原	A Transmission Gate Timing Tuning for Wider Supply Voltage Inverter-Based True Random Number Generator
篠原	Output Stabilized Inverter-Based TRNG Using Body-Bias Technique

高畑	Polarization beam splitter based on a one-dimensional grating coupler with reflecting mirror
高畑	All-optical gate for all types of logical operations based on 3×3 multi-mode interference coupler
高畑	A compact SOI based polarization beam splitter using subwavelength gratings and hybrid plasmon waveguide
高畑	Mode size converter on SOI waveguide for improvement of coupling with single mode fiber
高畑	Evaluation method of crosstalk penalty of multi-channel PAM-4 signal
高畑	Vertical optical waveguide consisting of ununiform cube cores for multi-layer chip-to-chip interconnection
渡邊	Fast Symmetrical Routing Algorithm based on Pattern Routing
渡邊	A Congestion Detection Mechanism and Its Applications for Network on Chip
渡邊	A Traffic-Robust Routing Algorithm for Network-on-Chip Systems
渡邊	A Congestion-avoidance Routing Algorithm for NoC with Detection and Propagation Mechanism for Congestion
渡邊	Research of Fast Simulated Annealing Placement Algorithms for FPGA
渡邊	A Hotspot-Pattern-Aware Routing Algorithm for Network-on-Chip
渡邊	Online Task Placement Algorithm for 2D Reconfigurable Device based on Sophisticated MER Data Structure
吉増	A 28-GHz-band Doherty Power Amplifier IC with An Adaptive Bias Circuit for Auxiliary Path in 56-nm SOI CMOS
吉増	A 28-GHz High Linearity Sub-harmonic Down-conversion Mixer with Novel Source Injection Technique and Adaptive Bias in 56-nm SOI CMOS
吉増	A 28-GHz High Gain High Isolation Up-conversion Sub-harmonic Mixer with Derivative Superposition Technique in 56-nm SOI CMOS
吉増	A Wideband LC-VCO IC with an Inversion-MOS based novel varactor in 40-nm SOI CMOS
吉増	A 28-GHz Highly Linear Low Noise Amplifier with Transformer Feedback in 40-nm SOI CMOS