

情報アーキテクチャ分野

研究室	修士論文タイトル
藤村	A Study on Scientific Knowledge Graph Construction and Application
藤村	Buffer Cascade in Scheduling Design of Air Intermodal Network
藤村	Large-scale Job Shop Scheduling based on Operation Decomposition and Ant Colony Optimization
藤村	A Meta-heuristic Based Multi-Agent Model for Dynamic Scheduling in Cloud Manufacturing
藤村	GAN-based data augmentation for imbalanced data in classification-based anomaly detection for images
藤村	Improvement of Few-shot Named Entity Recognition with Manufacturing Text Using Data Augmentation and Contrastive Learning
藤村	An Improved NSGA-II Algorithm for Multi-objective Green Flexible Job Shop Scheduling Problem
藤村	The Optimization of Multi-objective FJSP Based on the Hybrid Algorithm
古月	A Study on Shift Consistency of Convolutional Neural Networks
古月	Masked Spectrogram Modeling for Music Source Separation
古月	Object Detection in Aerial Remote Sensing Scenarios
古月	Robust Generation of Stylizing Portraits via Facial Geometry Priors
古月	Predictor-Corrector Euler Networks (PCE-Net)
古月	A Study on Recognition of Badminton Players Swing Based on 3D-CNN and Computer Vision
古月	A Co-occurrence Matrix-based Multi-View Graph Neural Network for Recommendation
岩井原	Extreme Multi-label Text Classification Utilizing Semantic Similarity of Labels and Keyphrase Generation
岩井原	Unsupervised Keyphrase Generation by Utilizing Masked Words Prediction and Pseudo-label BART Finetuning
岩井原	Topic Trend Prediction by Integrating Semantic Similarity and Temporal Similarity
岩井原	Authorship Attribution Based on Pre-Trained Language Model and Capsule Network
岩井原	Column Type Detection Based on Pretrained Language Models with Various Column Encodings
岩井原	Link Prediction for Wikipedia Articles Based on GCN-Transformer
岩井原	Extractive Summarization Utilizing Combination of Keyphrase and Sentence Extractions and BERT Finetuning
鎌田	ヒルベルト走査によるウェーブレット・フラクタル変換を用いたMR画像圧縮
鎌田	Extended Residual U-Net Based on Attention Res2Net for Liver Tumor Segmentation
鎌田	Near-Infrared Image Colorization With Weighted Distribution Mapping GAN
鎌田	ADHD Classification With Fractal-Based Feature Maps for fMRI
鎌田	MRI Super-Resolution Using Implicit Neural Representation With Dynamic Feature Selection
鎌田	Multiple Mask Enhanced Transformer for Robust Visual Tracking
ルパージュ	Machine translation based on retrieval of sentences covering the source sentence
ルパージュ	Extraction of Analogies Between Sentences on the Level of Syntax Using Parse Trees
ルパージュ	Generation of pastiches based on AMR graphs and synonym replacement
ルパージュ	A study of re-generating sentences given similar sentences that cover them on the level of form and meaning
ルパージュ	Generation of pastiche at the paragraph-level for NLP scientific articles
松丸	アニメーション画像の超解像再構築技術のためのトランスフォーマーに基づくモデル
松丸	ビデオの空間的および時間的トランスフォーマーに基づく人間の行動分類タスク
松丸	人の監督による強化学習に基づく障害物回避を含む経路計画
松丸	GANネットワークによって生成された偽造顔の深層学習ベースの単一クラス検出システム
松丸	YOLOX検出器とGhostNetネットワークに基づく夜間交通標識検出とその軽量ネットワーク設計
坪川	Study on plasmonic waveguide filters with various resonator structures
坪川	Evaluation of nanoparticle transportation in dielectric slot-waveguides
坪川	血液検査に用いる表面プラズモン屈折率センサの研究
吉江	Basketball Free Throw Shooting Pose Estimation and Feedback Generation System
吉江	Segmentation and classification of industrial steel defects based on teacher-student network
吉江	Research on Surgical Mask and Social Distance Detection Based on Improved YOLOv3
吉江	Single image dehazing under non-homogeneous haze scenario
吉江	Custom Generation of Chinese Poetry Based on Seq2seq Model
吉江	Face recognition with surgical mask by patch fusion method of deep learning
吉江	敵対的生成ネットワークによるアニメスタイル変換
吉江	Research on Pavement Crack Analysis based on Noise Separation and Mask R-CNN
吉江	Unsupervised Day-to-Night Road Scene Translation by GAN

生産システム分野

研究室	修士論文タイトル
犬石	Design of P-channel lateral SOI RC-IGBT for complementary IGBT inverter
犬石	New structure design and layout of RC-IGBT for high performance
犬石	New backside structure design with multiple cells of vertical IGBTs
犬石	Emitter follower type complementary LIGBT on Bulk Si by BCD process
犬石	Design of N-channel and P-channel lateral SOI IGBT with simple RESURF process for complementary IGBTs
李	Unmanned Aerial Vehicle Path Planning in Mountain Areas
李	Real-time Drowsy Detection Method based on Temporal Attention-Causal Dilated Convolution
李	A Phased Trajectory Planning Framework for Autonomous Vehicles under Multiple Lanes On-road Condition
李	A Multi-target Dynamic Path Planning Algorithm for TSP
李	Improved Algorithms for Traffic Participant Detection, Tracking and Collision Prediction based on Monocular YOLOv5
李	An Improved RRT Algorithm for AGV Path Planning
李	Prediction of Financial Time Series using an Attention-based LSTM Hybrid approach with ARMA-GARCH model
李	An Improve USV Path Planning Method Combined RRT and APF Algorithms
三宅	Wearable and hybrid power sources for smart contact lens
三宅	Control of photocurrent from thylakoid membrane with proton signals
三宅	Analytical imaging system for cellular viability after nanotube stamping

三宅	Intracellular delivery of functional cargo molecules through nanotube ducts
田中(英)	A real-time and two-dimensional emotion recognition system based on EEG and HRV using machine learning
田中(英)	User intention based control method for a Multi-function exoskeleton
田中(英)	Remote Rehabilitation System Based on Openpose and 3D Reconstruction with Normal Monocular Camera
田中(英)	Development of a wearable walking assistance system according to emotion and fatigue status
田中(英)	Speech-Controlled Human Model for Remote Rehabilitation of Upper Limb based on Neural Network and Unity3D
田中(英)	An adjustable fabric mechanism for assistive suits with enhanced comfortableness
立野	Improvement of Dynamic Storage Allocator for Real-time Sensing Systems
立野	Indoor Visual Positioning Method based on Feature Fingerprinting with Scene Grouped Images
立野	Multi-floor Localization Method based on Fingerprinting Algorithm with Pre-clustering
立野	Indoor Positioning System Fusing Pedestrian Dead Reckoning and Geomagnetic Fingerprint Map
巽	The effect of the bonding interface on the reliability and diffusion behavior in Ag-Al and Au-Al ball bonding
集積システム分野	
研究室	修士論文タイトル
池橋	Ultra-low Resonance Frequency MEMS Gravimeter with Off-resonance Closed-loop Control
池橋	Rise Time Minimization of MEMS Capacitance Varying Charge Pump
池橋	A MEMS Resonator with Reduced Thermo-Elastic-Damping Using Virtual Spring
池橋	A Mode-localized Magnetometer with Wide Dynamic Range Enabled by Force-Balance System
池橋	A Ripple-Reduced Voltage Limiter for MEMS Capacitance Varying Charge Pump
池永	Multi-line Buffer Based Pipeline Architecture with Junction Connectivity and Inflection Point Selection for High Frame Rate and Ultra-Low Delay Contour-Based Corner Detection
池永	Voxel-based Recovery and Spatial-temporal Correction for Multi-view 3D Pose Reconstruction of Jump Analysis in Figure Skating
池永	State Detection and Position Reset based Particle Filter Tracking for Large-size and Long-term Full Occlusion
池永	Triple-level Human Body Structure Modeling Neural Network for Monocular 2D Pose Estimation
池永	Multi-scale and Bi-path Algorithm based on Image Entropy and CNN for Fast CU Partition in VVC Intra Coding
池永	Temporal Constraint and Relative Vector Clustering for High Frame Rate and Ultra-low Delay Arbitrary Shape Detection
碓塚	GaN-based spatial transport carrier photodetectors
碓塚	Wire-like active region membrane lasers with anti-phase gratings
碓塚	Nonreciprocal propagation-based membrane optical isolators on silicon platform
碓塚	Single mode membrane lasers using wire-like active regions with spatial hole burning suppression effect
木村	Compressed EfficientNet Using Group Pruning Method and BitMap Representation
木村	A Compressed CNN Model based on MobileNet V2 with Hetelogeneous Convolution and Quantization
木村	Area-Optimized Approximate Radix-8 Booth Multiplier Under Fan-in Constraint of FPGA
木村	Accuracy Improved Approximate Logarithmic Multiplier Based on Booth Encoding and Operand Shift
木村	KQ-WBC: A Lightweight CNN Based on Kernel-Quantization and Weight-Bit-Compression
木村	Acceleration of YOLOv4-tiny on FPGA with Fixed Point Quantization and Layer Fusion
木村	A Low-resource FPGA-based CNN Accelerator with Highly-parallel Structure
木村	FPGA-Based Carry-Truncated Approximate Multipliers with Error Compensation
木村	Model Compression of Compressed MobileNet V3 Using Ghost Pointwise Convolution
木村	FPGA based 256-point Multipath Serial Commutator Approximate FFT
木村	Low Power Approximate Multiplier Based on Truncation and Compression Technology
牧野	Blind source separation of moving sound sources in reverberant indoor environments
大澤	Influence of Hardware Variabilities on Binarized Neural Network Accelerator's Performance and Effectiveness of Fluctuation-conscious Trainings
大澤	A Current-driven XNOR Binarized Neural Network Based on 8T2MTJ with Resistor-load to Guarantee Linearity
大澤	Binarized Neural Network Accelerator with (+1, -1) Weights and (+1, 0) Activations Based on Differential Read 10T SRAM
大澤	A DNN Accelerator Design with Sample-and-Hold Circuit Based on Two-Stage Switched Capacitor to Realize Pipeline Operation
大澤	Sense Amplifier Design with Dummy Cell Averaging Scheme for Improving High Density 1T1MTJ STT-MRAM Chip Yield by Balancing Bit Yields Between Parallel and Anti-parallel Cells
大澤	Design of Neural Network Accelerator with Each Signed Binary Weight Stored in a Single STT-MTJ
大澤	A Training Method with Compensation Error Minimizing Strategy for Recovering Accuracy Degradation by Parasitic Wire Resistance in Large-Scale DNN Crossbar Arrays
大澤	Design of Off-chip Driver (OCD) Circuit for Neural Network Inference Accelerators Using a Reference Voltage Sweeper
篠原	A Compact Fully Compilable True Random Number Generator with a Multi-Edge Ring Oscillator
篠原	A Counter-based Muller-C Element with Probability Multiplier and De-autocorrelation for Extended Naive Bayesian Network
篠原	Two Stability Reinforcement Solutions of SRAM Physical Unclonable Function: Double Size Transistor and PUF System with on-Chip Masking Memory
篠原	A Strong Physical Unclonable Function with 100 Response bits and 100 Challenge bits in Single Challenge Response Pair
篠原	A Physical Unclonable Function Bit Cell with Self-test and Masking Functions
篠原	An Inverter-based True Random Number Generator with Random Noise Enhanced by Damped Oscillation and Full Oscillation
篠原	Extended Naïve Bayesian Inference with Combined Correlations in Evidences
篠原	Autocorrelation coefficient measurement circuits for true random number generator healthiness self-test
篠原	De-autocorrelation and De-biasing Post-processing Circuits for True Random Number Generators
高畑	Design of a multilayer multimode waveguide comprising nonuniform cuboid cores in vertical part for chip-to-chip optical interconnection
高畑	An optical ALU architecture based on silicon microring modulator for reduction in circuit redundancy and power consumption
高畑	Design of a 3-dimensional photonic crystal capable of wide frequency-range all-angle negative refraction
高畑	Laser cleaning analysis with a multi-physics model including rust-steel 2-layer fluid flow and plasma shielding effect.
高畑	Analysis on laser cleaning with a temperature-dependent micro-structural rust model
吉増	A 38-GHz High Back-Off Efficiency Power Amplifier with an Ultra-Low Power Adaptive Bias Circuit in 45-nm CMOS SOI