Hiroaki Takada

List of Publications by Year
in descending order

87 papers	920 citations	759233 12 h-index	610901 24 g-index
87 all docs	87 docs citations	87 times ranked	626 citing authors

#	ARTICLE	IF	CITATIONS
1	Implementation and Evaluation of Load Balancing Mechanism With Multiple Edge Server Cooperation for Dynamic Map System. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 7270-7280.	8.0	3
2	Efficient Access Method for Multi-access Edge Servers in Dynamic Map Systems. International Journal of Intelligent Transportation Systems Research, 2022, 20, 252-265.	1.1	2
3	iSotEE: A Hypervisor Middleware for IoT-Enabled Resource-Constrained Reliable Systems. IEEE Access, 2022, 10, 8566-8576.	4.2	2
4	Optimizing Extensibility of CAN FD for Automotive Cyber-Physical Systems. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 7875-7886.	8.0	15
5	Collision Risk Assessment Service for Connected Vehicles: Leveraging Vehicular State and Motion Uncertainties. IEEE Internet of Things Journal, 2021, 8, 11548-11560.	8.7	9
6	DynamicMapÂ2.0: A Traffic Data Management Platform Leveraging Clouds, Edges and Embedded Systems. International Journal of Intelligent Transportation Systems Research, 2020, 18, 77-89.	1.1	14
7	Balancing Bandwidth Utilization and Interrupts: Two Heuristic Algorithms for the Optimized Design of Automotive CPS. IEEE Transactions on Industrial Informatics, 2020, 16, 2382-2392.	11.3	12
8	Security/Timing-Aware Design Space Exploration of CAN FD for Automotive Cyber-Physical Systems. IEEE Transactions on Industrial Informatics, 2019, 15, 1094-1104.	11.3	35
9	Energy-Efficient Intra-task DVFS Scheduling Using Linear Programming Formulation. IEEE Access, 2019, , 1-1.	4.2	22
10	Energy-Aware Task Allocation for Heterogeneous Multiprocessor Systems by Using Integer Linear Programming. Journal of Information Processing, 2019, 27, 136-148.	0.4	5
11	Execution-variance-aware task allocation for energy minimization on the big.LITTLE architecture. Sustainable Computing: Informatics and Systems, 2019, 22, 155-166.	2.2	6
12	WCRT Analysis and Evaluation for Sporadic Message-Processing Tasks in Multicore Automotive Gateways. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 281-294.	2.7	13
13	A Comparative Analysis of RTOS and Linux Scalability on an Embedded Many-core Processor. Journal of Information Processing, 2018, 26, 225-236.	0.4	5
14	Efficient Approach to Ensure Temporal Determinism in Automotive Control Systems. , 2018, , .		5
15	Energy-Aware Task Allocation for Large Task Sets on Heterogeneous Multiprocessor Systems. , 2018, , .		2
16	Further Analysis with Linear Programming on Blocking Time Bounds for Partitioned Fixed Priority Multiprocessor Scheduling. Journal of Information Processing, 2018, 26, 540-548.	0.4	1
17	Exact WCRT Analysis for Message-Processing Tasks on Gateway-Integrated In-Vehicle CAN Clusters. Transactions on Embedded Computing Systems, 2018, 17, 1-29.	2.9	14
18	WCRT Analysis of CAN Messages in Gateway-Integrated In-Vehicle Networks. IEEE Transactions on Vehicular Technology, 2017, 66, 9623-9637.	6.3	32

#	ARTICLE	IF	CITATIONS
19	Further analysis on blocking time bounds for partitioned fixed priority multiprocessor scheduling. , 2016, , .		0
20	Energy-aware task migration for multiprocessor real-time systems. Future Generation Computer Systems, 2016, 56, 220-228.	7.5	31
21	An Integrated Framework for Topology Design of CAN Networks under Real-Time Constraints. , 2015, , .		1
22	HAZOP-based security analysis for embedded systems: Case study of open. , 2015, , .		0
23	Gateway Modeling and Response Time Analysis on CAN Clusters of Automobiles. , 2015, , .		4
24	AEDSMS: Automotive Embedded Data Stream Management System. , 2015, , .		5
25	Automatic synthesis of inter-heterogeneous-processor communication implementation for programmable system-on-chip. , 2015, , .		2
26	Implementation and Evaluation of Local Dynamic Map in Safety Driving Systems. Journal of Transportation Technologies, 2015, 05, 102-112.	0.5	56
27	Task Migration for Energy Saving in Real-Time Multiprocessor Systems. , 2014, , .		2
28	A Multi-purpose Group Signature for Vehicular Network Security. , 2014, , .		4
29	An Integrated Framework for Energy Optimization of Embedded Real-Time Applications. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2014, E97.A, 2477-2487.	0.3	3
30	Android Platform Based on Vehicle Embedded Data Stream Processing. , 2013, , .		3
31	Worst Case Response Time Analysis for Messages in Controller Area Network with Gateway. IEICE Transactions on Information and Systems, 2013, E96.D, 1467-1477.	0.7	9
32	A Fast Network-on-Chip Simulator with QEMU and SystemC. , 2012, , .		4
33	An Open-Source Flexible Scheduling Simulator for Real-Time Applications. , 2012, , .		7
34	A Novel Framework for Effective Preemptive Hardware Multitasking on FPGAs. IEICE Transactions on Information and Systems, 2012, E95-D, 345-353.	0.7	0
35	Integrated Scheduling for a Reliable Dual-OS Monitor. IPSJ Online Transactions, 2012, 5, 47-58.	0.1	2
36	Efficient Algorithms for Extracting Pareto-optimal Hardware Configurations in DEPS Framework. IPSJ Transactions on System LSI Design Methodology, 2012, 5, 133-142.	0.8	1

#	Article	IF	Citations
37	A Fast Performance Estimation Framework for System-Level Design Space Exploration. IPSJ Transactions on System LSI Design Methodology, 2012, 5, 44-54.	0.8	2
38	Comparison of Preemption Schemes for Partially Reconfigurable FPGAs. IEEE Embedded Systems Letters, 2012, 4, 45-48.	1.9	17
39	Extensibility-Aware Message Scheduling Algorithm for the Static Segment of the FlexRay. , 2012, , .		4
40	Schedulability Analysis for Messages in Gateway-Interconnected Controller Area Network. , 2012, , .		0
41	Hardware multitasking in dynamically partially reconfigurable FPGA-based embedded systems. , 2011, , .		1
42	Fast design space exploration for mixed hardware-software embedded systems. , 2011, , .		5
43	Checkpoint Extraction Using Execution Traces for Intra-task DVFS in Embedded Systems. , 2011, , .		9
44	Rainbow: An OS Extension for Hardware Multitasking on Dynamically Partially Reconfigurable FPGAs. , 2011, , .		3
45	Partitioning and Allocation of Scratch-Pad Memory for Energy Minimization of Priority-Based Preemptive Multi-Task Systems. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2011, E94-A, 1954-1964.	0.3	3
46	Efficient Design Space Exploration at System Level with Automatic Profiler Instrumentation. IPSJ Transactions on System LSI Design Methodology, 2010, 3, 179-193.	0.8	2
47	Static Task Scheduling Algorithms Based on Greedy Heuristics for Battery-Powered DVS Systems. IEICE Transactions on Information and Systems, 2010, E93-D, 2737-2746.	0.7	8
48	Automatic communication synthesis with hardware sharing for design space exploration. , 2010, , .		1
49	Wheeled Inverted Pendulum with Embedded Component System: A Case Study. , 2010, , .		15
50	Advanced SystemBuilder: A tool set for multiprocessor design space exploration. , 2010, , .		10
51	Towards practical high-level synthesis from large behavioral descriptions. , 2010, , .		7
52	Partitioning and allocation of scratch-pad memory for priority-based preemptive multi-task systems. , 2010, , .		24
53	A Novel Mechanism for Effective Hardware Task Preemption in Dynamically Reconfigurable Systems. , 2010, , .		18
54	Aggressive Register Unsharing Based on SSA Transformation for Clock Enhancement in High-Level Synthesis. , 2010, , .		2

#	Article	IF	Citations
55	Partitioning of Behavioral Descriptions with Exploiting Function-Level Parallelism. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2010, E93-A, 488-499.	0.3	6
56	Automatic Communication Synthesis with Hardware Sharing for Multi-Processor SoC Design. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2010, E93-A, 2509-2516.	0.3	0
57	Modeling power consumption of applications in wireless communication devices using OS level profiles. , 2009, , .		1
58	Analyzing and optimizing energy efficiency of algorithms on DVS systems A first step towards algorithmic energy minimization. , 2009, , .		0
59	Hierarchical scheduling for integrating real-time applications with interrupt routines. , 2009, , .		2
60	Automatic instrumentation of profilers for FPGA-based design space exploration. , 2009, , .		1
61	Practical Energy-Aware Scheduling for Real-Time Multiprocessor Systems. , 2009, , .		24
62	A case study on MPEG4 decoder design with SystemBuilder. , 2009, , .		3
63	Allocation of scratch-pad memory in priority-based multi-task systems. , 2009, , .		3
64	Heuristics for Static Voltage Scheduling Algorithms on Battery-Powered DVS Systems. , 2009, , .		2
65	Proposal and Quantitative Analysis of the CHStone Benchmark Program Suite for Practical C-based High-level Synthesis. Journal of Information Processing, 2009, 17, 242-254.	0.4	223
66	A Generalized Framework for Energy Savings in Hard Real-Time Embedded Systems. IPSJ Transactions on System LSI Design Methodology, 2009, 2, 167-179.	0.8	6
67	Partitioning and Allocation of Scratch-Pad Memory in Priority-Based Multi-Task Systems. IPSJ Transactions on System LSI Design Methodology, 2009, 2, 180-188.	0.8	6
68	Effective Scheduling Algorithms for I/O Blocking with a Multi-Frame Task Model. IEICE Transactions on Information and Systems, 2009, E92-D, 1412-1420.	0.7	5
69	Optimization of Component Connections for an Embedded Component System. , 2009, , .		7
70	Generic Memory Protection Mechanism for Embedded System and Its Application to Embedded Component Systems. , 2008, , .		5
71	Energy Efficiency of Scratch-Pad Memory at 65 nm and Below: An Empirical Study. , 2008, , .		0
72	Real-time operating systems for multicore embedded systems. , 2008, , .		3

#	Article	IF	Citations
73	A generalized framework for energy savings in real-time multiprocessor systems. , 2008, , .		0
74	Behavioral partitioning with exploiting function-level parallelism. , 2008, , .		0
75	Improved Policies for Drowsy Caches in Embedded Processors. , 2008, , .		3
76	CHStone: A benchmark program suite for practical C-based high-level synthesis. , 2008, , .		95
77	A Generalized Framework for System-Wide Energy Savings in Hard Real-Time Embedded Systems. , 2008, , .		5
78	Energy efficiency of scratch-pad memory in deep submicron domains: an empirical study. IEICE Electronics Express, 2008, 5, 1010-1016.	0.8	2
79	Embedded System Covalidation with RTOS Model and FPGA. IPSJ Transactions on System LSI Design Methodology, 2008, 1, 126-130.	0.8	0
80	Dynamic Power Management for Embedded System Idle State in the Presence of Periodic Interrupt Services. IPSJ Transactions on System LSI Design Methodology, 2008, 1, 48-57.	0.8	1
81	Practice and analysis of an extension course for training trainers of embedded software. ACM SIGBED Review, 2007, 4, 73-81.	1.8	2
82	A Visual Modeling Environment for Embedded Component Systems. , 2007, , .		1
83	RTOS and Codesign Toolkit for Multiprocessor Systems-on-Chip. , 2007, , .		13
84	A New Specification of Software Components for Embedded Systems. , 2007, , .		26
85	SSEST: Summer school on embedded system technologies. , 2007, , .		1
86	Remedial Education of Embedded Software Specialists for Working People. IEEJ Transactions on Fundamentals and Materials, 2006, 126, 563-569.	0.2	3
87	NEXCESS. ACM SIGBED Review, 2005, 2, 20-24.	1.8	9