

# Hiroaki Nishi

## List of Publications by Year in descending order

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Version: 2024-02-01

193  
papers

1,455  
citations

933447

10  
h-index

526287

27  
g-index

193  
all docs

193  
docs citations

193  
times ranked

942  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical Multiobjective Distributed Deep Learning for Residential Short-Term Electric Load Forecasting. IEEE Access, 2022, 10, 69950-69962.	4.2	4
2	Face-Image Anonymization as an Application of Multidimensional Data k-anonymizer. International Journal of Networking and Computing, 2021, 11, 102-119.	0.4	3
3	Adaptive Control Method of HVAC for Uniformizing Comfort at Japanese Residential Living Rooms Using Deep Reinforcement Learning. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 373-382.	0.2	1
4	Purchasing Behavior Prediction Model for Real Stores Considering Product Cluster and Time-series Patterns. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 471-482.	0.2	0
5	Thermal Energy Storage Performance of Tetrabutylammonium Acrylate Hydrate as Phase Change Materials. Applied Sciences (Switzerland), 2021, 11, 4848.	2.5	7
6	Digital Watermarking for Anonymized Data With Low Information Loss. IEEE Access, 2021, 9, 130570-130585.	4.2	2
7	Network Transparent Decrypting of Cryptographic Stream Considering Service Provision at the Edge. , 2021, , .		1
8	Sustainable Energy Consumption. Energies, 2021, 14, 6665.	3.1	3
9	Recommendation System for Energy Consumption Behavior Change on Residents's™ Response and Stress. , 2021, , .		0
10	Consistency Guaranteed Multi Container Migration for Smart Community Network Services. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 1453-1461.	0.2	0
11	Dataflow Management Platform for Smart Communities using an Edge Computing Environment. , 2021, , .		4
12	Smart Community Edge: Stream Processing Edge Computing Node for Smart Community Services. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 1030-1039.	0.2	6
13	RPC: An Approach for Reducing Compulsory Misses in Packet Processing Cache. IEICE Transactions on Information and Systems, 2020, E103.D, 2590-2599.	0.7	0
14	Architecture and Data Management for Smart Community Information Platform. , 2020, , 37-46.		0
15	Energy Optimization Technologies in Smart Homes. , 2020, , .		2
16	FPGA Context-based Live Migration Maintaining Network Consistency. , 2020, , .		5
17	Estimation of Building Thermal Performance Using Simple Sensors and Air Conditioners. Energies, 2019, 12, 2950.	3.1	2
18	Network Transparent Fog-based IoT Platform for Industrial IoT. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
19	Implementation of Content-Based Anonymization Edge Router on NetFPGA. , 2019, , .		3
20	Exploring Variability in IoT Data for Human Activity Recognition. , 2019, , .		1
21	Industrial Edge Computing: Enabling Embedded Intelligence. IEEE Industrial Electronics Magazine, 2019, 13, 48-56.	2.6	87
22	Feature Extraction and Resident Number Prediction Method using Power Consumption Data. IEEJ Transactions on Electronics, Information and Systems, 2019, 139, 227-236.	0.2	0
23	Software-accelerated Service-oriented Router for Edge and Fog Service Enhancement Using Advanced Stream Content Analysis. IEEJ Transactions on Electronics, Information and Systems, 2019, 139, 891-899.	0.2	5
24	Dynamic Load Balancing Using Actual Workload Traces Based on Central Processing Unit Temperatures. Journal of Electronic Packaging, Transactions of the ASME, 2019, 141, .	1.8	1
25	A privacy-preserving sharing method of electricity usage using self-organizing map. ICT Express, 2018, 4, 24-29.	4.8	5
26	Architecture and Data Management for Smart Community Information Platform. , 2018, , 1-10.		0
27	Self-Organizing Map Using Classification Method for Services in Multilayer Computing Environments. , 2018, , .		2
28	TMk-Anonymity: Perturbation-Based Data Anonymization Method for Improving Effectiveness of Secondary Use. , 2018, , .		2
29	Data Prediction for Response Flows in Packet Processing Cache. , 2018, , .		2
30	On the effectiveness of using network device state information for network path selection. Procedia Computer Science, 2018, 130, 134-141.	2.0	0
31	Improving Road Traffic Management by A Model-Based Simulation. , 2018, , .		9
32	Proposal of Feature Value Selection Method for Time-Critical Learning. , 2018, , .		1
33	An Overview of Technologies for Lower Energy Consumption in Smart Buildings. , 2018, , .		4
34	FROG: A Packet Hop Count based DDoS Countermeasure in NDN. , 2018, , .		3
35	Hardware for Accelerating Anonymization Transparent to Network. , 2018, , .		4
36	On the Effectiveness of IP-Routable Entire-Packet Encryption Service Over Public Networks (November) Tj ETQq0 0 0 ,rgBT /Overlock 10	4.28	3

#	ARTICLE	IF	CITATIONS
37	Improving Energy Efficiency in Data Centers by Controlling Task Distribution and Cooling. , 2018, , .		3
38	Request Distribution for Heterogeneous Database Server Clusters with Processing Time Estimation. , 2018, , .		1
39	Indoor Occupancy Estimation via Location-Aware HMM: An IoT Approach. , 2018, , .		9
40	Slightly-slacked dropout for improving neural network learning on FPGA. ICT Express, 2018, 4, 75-80.	4.8	6
41	Data prediction for response flows in packet processing cache. , 2018, , .		3
42	Information and communication platform for providing smart community services: System implementation and use case in Saitama city. , 2018, , .		10
43	Building Thermal Performance Assessments Using Simple Sensors for the Green New Deal in Japan. , 2018, , .		1
44	Time slotted channel hopping scheduling based on the energy consumption of wireless sensor networks. , 2018, , .		5
45	Influence of Reinforcing Bar Type On Flexural Behavior of R-UHPFRC. Procedia Engineering, 2017, 171, 977-984.	1.2	0
46	Temperature-Based Request Distribution for Effective CRAC and Equipment Life-Cycle Extension. , 2017, , .		1
47	Feature extraction and background information detection method using power demand. , 2017, , .		2
48	Implementation and evaluation of an FPGA-based network data anonymizer. IEEJ Transactions on Electrical and Electronic Engineering, 2017, 12, S134.	1.4	5
49	Estimation of Required EVs Battery Capacity for Leveling Demand Energy Considering Parking Durations. International Journal of Intelligent Transportation Systems Research, 2017, 15, 155-165.	1.1	1
50	Time-series decomposition of power demand data to extract uncertain features. , 2017, , .		3
51	Analysis of batteries in the built environment an overview on types and applications. , 2017, , .		14
52	Novel infrastructure with common API using docker for scaling the degree of platforms for smart community services. , 2017, , .		11
53	Effectiveness of Service-oriented Router for ISP-CDN Collaboration. Journal of Information Processing, 2017, 25, 45-55.	0.4	8
54	Efficient energy utilization based on task distribution and cooling airflow management in a data center. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
55	An Information Platform for Smart Communities Realizing Data Usage Authentication and Secure Data Sharing. , 2017, , .		4
56	Blind Watermarking Method for Anonymized Data. , 2017, , .		1
57	Feature expression of frequency transform regarding daily power demand information. , 2017, , .		1
58	Novel Method to Watermark Anonymized Data for Data Publishing. IEICE Transactions on Information and Systems, 2017, E100.D, 1671-1679.	0.7	4
59	Line Replacement Algorithm for L1-scale Packet Processing Cache. , 2016, , .		6
60	Prototype implementation of fast and secure traceability service over public networks. IEJ Transactions on Electrical and Electronic Engineering, 2016, 11, S122.	1.4	5
61	Time Synchronization Technique Using EPON for Next-Generation Power Grids. IEICE Transactions on Communications, 2016, E99.B, 859-866.	0.7	2
62	Coordination middleware for secure wireless sensor networks. , 2016, , .		1
63	Shutter control for cooling air flow management in data center servers. , 2016, , .		1
64	Analysis and implementation of WSN with Route Selection considering Energy Consumption. , 2016, , .		3
65	Hardware accelerator for data anonymization using dynamic partial reconfiguration. , 2016, , .		4
66	Feature extraction and classification using power demand information. , 2016, , .		4
67	High-speed decompression architecture of compressed HTTP streams for the internet routers. , 2016, , .		1
68	Influence of noise-based perturbation on recommendation application. , 2016, , .		1
69	Automated generation method of recommendation for effective energy utilization as a HEMS service. , 2016, , .		3
70	Effective communicating optimization for V2G with electric bus. , 2016, , .		2
71	ECORS: Energy consumption-oriented route selection for wireless sensor network. , 2016, , .		7
72	The IOT mediated built environment: A brief survey. , 2016, , .		14

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73	Sparse-coding-based household clustering for demand response services. , 2016, , .		4
74	Implementation of Household's Amenity Maintaining System Based on Behavior Estimation. Procedia Environmental Sciences, 2016, 34, 582-593.	1.4	0
75	How Can a Service-oriented Router Merge with a CDN?. IEEJ Transactions on Electronics, Information and Systems, 2016, 136, 1172-1179.	0.2	4
76	Implementation and evaluation of HEMS management middleware using XML. , 2015, , .		0
77	Hyperthermic effects of hand bathing: benefits of incorporating finger flexion-extension exercise. Journal of Physical Therapy Science, 2015, 27, 3779-3782.	0.6	2
78	SLRouting. , 2015, , .		4
79	Active controlled shutter for effective cooling of servers in data center. , 2015, , .		4
80	Privacy-preserving data collection for demand response using self-organizing map. , 2015, , .		6
81	Enhanced building thermal model by using CO2 based occupancy data. , 2015, , .		5
82	Effective metering data aggregation for smart grid communication infrastructure. , 2015, , .		13
83	Air conditioning control using self-powered sensor considering comfort level and occupant location. , 2015, , .		4
84	Disaggregation of Electric Appliance's Consumption Using Collected Data by Smart Metering System. Energy Procedia, 2015, 75, 2940-2945.	1.8	8
85	Proposal for home energy management system to survey individual thermal comfort range for HVAC control with little contribution from users. , 2015, , .		14
86	Effectiveness of a Service-oriented Router in Future Content Delivery Networks. , 2015, , .		4
87	Introducing a Distance Vector Routing Protocol for ns-3 Simulator. , 2015, , .		4
88	A Proposal of Campus Energy Management System Considering Learning Efficiency. Transactions of the Society of Instrument and Control Engineers, 2015, 51, 344-351.	0.2	0
89	Development of Steam Generator Model Using RELAP5 to Simulate Two-Phase Natural Circulation for Pressurized Water Reactor. , 2014, , .		1
90	Cost-effective air conditioning control considering comfort level and user location. , 2014, , .		4

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91	Previous hop data retransmission service for SoR-based public networks. , 2014, , .		0
92	Construction of HEMS in Japanese cold district for reduction of carbon dioxide emissions. , 2014, , .		6
93	A router-based management system for prediction of network congestion. , 2014, , .		5
94	High-Throughput and Low-Cost Hardware Accelerator for Privacy Preserving Publishing. , 2014, , .		1
95	RAM-based hardware accelerator for network data anonymization. , 2014, , .		4
96	Electrified Vehicles and the Smart Grid: The ITS Perspective. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 1388-1404.	8.0	117
97	Per hop data encryption protocol for transmission of motion control data over public networks. , 2014, , .		2
98	Per-hop Data Encryption Protocol for Transmitting Data Securely Over Public Networks. Procedia Computer Science, 2014, 32, 965-972.	2.0	7
99	Experimental Study on Model Development for Liquid Accumulation in Steam Generator U-Tube (First) Tj ETQq1 1 0.784314 gBT /Ov		
100	Effective Control System of Electric Home Appliances Considering Variability of Amenity Index Tendency. Transactions of the Society of Instrument and Control Engineers, 2014, 50, 471-477.	0.2	0
101	Router-based Content-aware Data Redirection for Future CDN Systems. International Journal of Computer Network and Information Security, 2014, 6, 1-10.	1.9	3
102	Distributed Algorithm for Router-Based Management of Replica Server in Next-CDN Infrastructure. , 2013, , .		3
103	Service-Oriented Router-Based CDN System: An SoR-Based CDN Infrastructure Implementation on a Real Network Environment. , 2013, , .		6
104	Service-oriented Router Simulation Module Implementation in NS2 Simulator. Procedia Computer Science, 2013, 19, 478-485.	2.0	7
105	GPU-based Multi-stream Analyzer on Application Layer for Service-Oriented Router. , 2013, , .		3
106	Hardware-based hash functions for network applications. , 2013, , .		31
107	Router-based request redirection management for a next-generation content distribution network. , 2013, , .		4
108	Feasibility study of service-oriented architecture for smart grid communications. , 2013, , .		13

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109	Real-time METs estimation for effective indoor amenity control in HEMS. , 2013, , .		3
110	SoR-Based Programmable Network for Future Software-Defined Network. , 2013, , .		8
111	DCâ€balanced perfect classified channel for hiding framing signals. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, 610-615.	1.4	0
112	Demand control of a pool by means of residual chlorine sensor. , 2013, , .		0
113	Accurate indoor condition control based on PMV prediction in BEMS environments. , 2013, , .		3
114	A practical case study of HVAC control with MET measuring in HEMS environment. , 2013, , .		9
115	Modeling of Router-based Request Redirection for Content Distribution Network. International Journal of Computer Applications, 2013, 76, 37-46.	0.2	7
116	Estimation of the number of people under controlled ventilation using a CO&lt;inf&gt;2&lt;/inf&gt; concentration sensor. , 2012, , .		13
117	Hardware acceleration and data-utility improvement for low-latency privacy preserving mechanism. , 2012, , .		7
118	Real-time simulation of cooperative demand control method with batteries. , 2012, , .		7
119	OPTIMIZED CONTROL OF HOME ELECTRIC APPLIANCES CONSIDERING ENVIRONMENTAL AMENITY AND ELECTRIC POWER CONSUMPTION. Journal of Environmental Engineering (Japan), 2012, 77, 1011-1019.	0.4	2
120	A case for routing cache on HPC switches. IEICE Communications Express, 2012, 1, 49-53.	0.4	0
121	SoR based request routing for future CDN. , 2012, , .		7
122	Service-oriented communication platform for scalable smart community applications. , 2012, , .		6
123	A simulation study of electric power leveling using V2G infrastructure. , 2011, , .		5
124	Estimation of Degrading Process of Tunnel Concrete. Procedia Engineering, 2011, 14, 3136-3141.	1.2	0
125	Implementation and substantiation of energy management systems for terminal buildings. , 2011, , .		8
126	DATA BACKUP MECHANISM FOR STRUCTURAL HEALTH MONITORING SYSTEM. Journal of Environmental Engineering (Japan), 2011, 76, 439-447.	0.4	0



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127	Evaluation of power consumption and comfort using inverter control of air-conditioning. , 2011, , .		4
128	Numerical Simulations on Impact Resistant Behavior of Rahmen-Slab Type RC Structures. Applied Mechanics and Materials, 2011, 82, 583-588.	0.2	0
129	Self-Organized Link State Aware Routing for Multiple Mobile Agents in Wireless Network. IEICE Transactions on Communications, 2010, E93-B, 2012-2021.	0.7	0
130	ESTIMATION METHOD OF THE NUMBER OF PEOPLE IN A ROOM BY USING ENVIRONMENTAL SENSORS. Journal of Environmental Engineering (Japan), 2010, 75, 355-362.	0.4	1
131	An expression of system connection considering transmission delay. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2010, 170, 45-54.	0.4	1
132	A Regular Expression Processor Embedded in Service-Friendly Router for Future Internet. , 2010, , .		2
133	Environmental-amenity aware controller for Demand Side Management. , 2010, , .		9
134	Construction method of dynamic microgrid by using optimized grouping method. , 2010, , .		7
135	Construction of energy measuring system in a University for Cluster Energy Management System. , 2010, , .		13
136	Implementation of lossy haptic data compression using integer DCT to FPGA. , 2010, , .		2
137	Distributed demand side management system for home energy management. , 2010, , .		23
138	Effective data sharing system for fault tolerant Structural Health Monitoring system. , 2010, , .		1
139	A Study for Protecting Cold Boot Attacks. IEJ Transactions on Electronics, Information and Systems, 2010, 130, 1350-1356.	0.2	0
140	Evaluation of cooperative demand control system on micro grid. , 2009, , .		3
141	Haptic communication system using FPGA and real-time network framework. , 2009, , .		1
142	Design of acceleration control system considering current dynamics. , 2009, , .		0
143	Quality of connectivity guarantee of ZigBee based wireless mobile sensor network. , 2009, , .		2
144	Implementation of Bilateral Control System Based on Acceleration Control Using FPGA for Multi-DOF Haptic Endoscopic Surgery Robot. IEEE Transactions on Industrial Electronics, 2009, 56, 618-627.	7.9	107

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145	Lightweight Data Duplication for Fault Tolerant Structural Health Monitoring System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 255-258.	0.4	2
146	Development of multi-degree-of-freedom bilateral forceps robot system using FPGA. Electronics and Communications in Japan, 2008, 91, 23-33.	0.5	1
147	Realization of acceleration control using multirate sampling method. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2008, 162, 72-81.	0.4	0
148	Cooperative distributed demand control by environmental sensor network - Estimating the number of people by CO <sub>2</sub> concentration -, 2008, , .		8
149	KNIVES: A distributed demand side management system - Integration with ZigBee wireless sensor network and application -, 2008, , .		12
150	Structural Health Monitoring system considering fault-tolerance. , 2008, , .		3
151	Table-based scheduling method for distributed demand side management. , 2008, , .		11
152	An approach to acceleration estimation using FPGA. , 2008, , .		6
153	Implementation of multirate acceleration control based bilateral control system including mode transformation on FPGA. , 2008, , .		7
154	Haptic Endoscopic Surgery Robot Utilizing FPGA. , 2008, , .		9
155	Perfect Classified Channel retaining DC balance for high-throughput communication. , 2008, , .		1
156	Gravity Compensation for Improvement of Operationarity in Bilateral Teleoperation. IEJ Transactions on Industry Applications, 2008, 128, 767-774.	0.2	6
157	Bilateral Control in Multi DOF Haptic Surgical Robotic System Utilizing FPGA. , 2007, , .		4
158	Position Control Using an FPGA based on Multirate Acceleration Control. , 2007, , .		4
159	An Approach to Velocity Estimation Using FPGA. , 2007, , .		5
160	Improvement of Performances in Bilateral Teleoperation by Using FPGA. IEEE Transactions on Industrial Electronics, 2007, 54, 1876-1884.	7.9	54
161	KNIVES: Network based Demand and Supply Control System - Enhancement for Network and Environmental Affinity. , 2007, , .		13
162	Martini: A Network Interface Controller Chip for High Performance Computing with Distributed PCs. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 1282-1295.	5.6	6

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163	Collision Avoidance Method of Humanoid Robot With Arm Force. IEEE Industrial Electronics Magazine, 2007, 54, 1632-1641.	2.6	46
164	An Expression of System Connection Considering Transmission Delay. IEEJ Transactions on Industry Applications, 2007, 127, 635-642.	0.2	1
165	Development of Multi Degrees-of-Freedom Bilateral Forceps Robot System Using FPGA. IEEJ Transactions on Industry Applications, 2007, 127, 508-517.	0.2	2
166	Energy Assessment of Cogeneration and Air Conditioning System on Keio University Shonan Fujisawa Campus. , 2006, , .		2
167	A Controller Design Method of Decentralized Control System. IEEJ Transactions on Industry Applications, 2006, 126, 630-638.	0.2	25
168	Network Bilateral Control System with Jitter Buffer. IEEJ Transactions on Industry Applications, 2006, 126, 1737-1738.	0.2	8
169	A Controller Design Method of Bilateral Control System. EPE Journal (European Power Electronics) Tj ETQq1 1 0.784314 rgBT/Overload 0.7 33		
170	Discussion of Aspects in Energy Management with Demand Response System KNIVES. , 2006, , .		5
171	100-Gb/s Physical-Layer Architecture for Next-Generation Ethernet. IEICE Transactions on Communications, 2006, E89-B, 696-703.	0.7	10
172	Cache-Based Network Processor Architecture: Evaluation with Real Network Traffic. IEICE Transactions on Electronics, 2006, E89-C, 1620-1628.	0.6	6
173	Bilateral Teleoperation Based on Modal System Design. , 2005, , .		3
174	A velocity measurement method for acceleration control. , 2005, , .		31
175	Low-Power Network-Packet-Processing Architecture Using Process-Learning Cache for High-End Backbone Router. IEICE Transactions on Electronics, 2005, E88-C, 536-543.	0.6	1
176	Autonomous Decentralized Control for Formation of Multiple Mobile Robots Considering Ability of Robot. IEEE Transactions on Industrial Electronics, 2004, 51, 1272-1279.	7.9	99
177	Performance evaluation of RHINET 2/NI: a network interface for distributed parallel computing systems. , 2003, , .		8
178	VCore-based design methodology. , 2003, , .		9
179	RHiNET-2/SW: High-speed network switch implemented with parallel optical interconnection for parallel computing system. Electronics and Communications in Japan, 2002, 85, 1-10.	0.2	0
180	Title is missing!. Cluster Computing, 2002, 5, 7-17.	5.0	9

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181	Recursive diagonal torus: an interconnection network for massively parallel computers. IEEE Transactions on Parallel and Distributed Systems, 2001, 12, 701-715.	5.6	54
182	A network switch for supporting high-performance parallel processing by computers distributed in local areas. Systems and Computers in Japan, 2001, 32, 24-33.	0.2	0
183	<title>High-throughput network switch for the RHiNET-2 optically interconnected parallel computing system</title>. , 2000, , .		2
184	RHiNET-2/SW: a high-throughput, compact network-switch using 8.8-gbit/s optical interconnection. New Generation Computing, 2000, 18, 187-197.	3.3	4
185	64-Gb/s highly reliable network switch (RHiNET-2/SW) using parallel optical interconnection. Journal of Lightwave Technology, 2000, 18, 1620-1627.	4.6	4
186	A local area system network RHiNET-1: a network for high performance parallel computing. , 0, , .		1
187	MEMOnet: network interface plugged into a memory slot. , 0, , .		17
188	RHiNET: a network for high performance parallel computing using locally distributed computers. , 0, , .		7
189	Optical interconnection as an IP macro of a CMOS library. , 0, , .		8
190	RHiNET-3/SW: an 80-Gbit/s high-speed network switch for distributed parallel computing. , 0, , .		7
191	Synthesis for SoC architecture using VCores. , 0, , .		0
192	Improvement of performance in bilateral teleoperation by using FPGA. , 0, , .		23
193	Numerical Simulations of Rockfall Protection Retaining Wall Joined to Steel-Pile Foundation. Applied Mechanics and Materials, 0, 82, 716-721.	0.2	1