Jiro Katto

List of Publications by Year
in descending order

191 papers	1,671 citations	933447 10 h-index	752698 20 g-index
193 all docs	193 docs citations	193 times ranked	823 citing authors

#	Article	IF	Citations
1	QA-Filter: A QP-Adaptive Convolutional Neural Network Filter for Video Coding. IEEE Transactions on Image Processing, 2022, 31, 3032-3045.	9.8	9
2	An Efficient Low-Complexity Convolutional Neural Network Filter. IEEE MultiMedia, 2022, , 1-1.	1.7	0
3	Forward and Backward Warping for Optical Flow-Based Frame Interpolation. , 2022, , .		0
4	Research and examination on implementation of super-resolution models using deep learning with INT8 precision. , 2022, , .		2
5	IoT-centric Service Function ChainingOrchestration and its Performance Validation. , 2021, , .		2
6	A containerized task clustering for scheduling workflows to utilize processors and containers on clouds. Journal of Supercomputing, 2021, 77, 12879-12923.	3.6	1
7	Approximated Reconfigurable Transform Architecture for VVC. , 2021, , .		7
8	Accelerating Convolutional Neural Network Inference Based on a Reconfigurable Sliced Systolic Array. , 2021, , .		4
9	FRAB: A Flexible Relaxation Method for Fair, Stable, Efficient Multi-user DASH Video Streaming. , 2021, , .		4
10	High-QoE DASH Live Streaming Using Reinforcement Learning. , 2021, , .		3
11	ViT-GAN: Using Vision Transformer as Discriminator with Adaptive Data Augmentation. , 2021, , .		4
12	Deep Pedestrian Density Estimation For Smart City Monitoring. , 2021, , .		2
13	Mitigation of Cold Start Problem in Experience-Based Adaptive Streaming over NDN. , 2021, , .		0
14	Adaptive Video Transmission Strategy Based on Ising Machine. , 2021, , .		0
15	A Hardware Architecture for Adaptive Loop Filter in VVC Decoder. , 2021, , .		6
16	Learning in Compressed Domain for Faster Machine Vision Tasks. , 2021, , .		6
17	A Pipelined 2D Transform Architecture Supporting Mixed Block Sizes for the VVC Standard. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 3289-3295.	8.3	26
18	Energy Compaction-Based Image Compression Using Convolutional AutoEncoder. IEEE Transactions on Multimedia, 2020, 22, 860-873.	7.2	47

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19	A Learning-Based Low Complexity in-Loop Filter for Video Coding. , 2020, , .		5
20	Low Bitrate Image Compression with Discretized Gaussian Mixture Likelihoods. , 2020, , .		1
21	An Image Compression Framework with Learning-based Filter. , 2020, , .		4
22	Scalable Learned Image Compression With A Recurrent Neural Networks-Based Hyperprior. , 2020, , .		8
23	End-To-End Learned Image Compression With Fixed Point Weight Quantization. , 2020, , .		5
24	Learned Image Compression With Discretized Gaussian Mixture Likelihoods and Attention Modules. , 2020, , .		389
25	Learned Lossless Image Compression with A Hyperprior and Discretized Gaussian Mixture Likelihoods. , 2020, , .		5
26	A Fast QTMT Partition Decision Strategy for VVC Intra Prediction. IEEE Access, 2020, 8, 107900-107911.	4.2	80
27	Accuracy Evaluations of Video Anomaly Detection Using Human Pose Estimation. , 2020, , .		2
28	Video Alignment Using Bi-Directional Attention Flow in a Multi-Stage Learning Model. IEEE Access, 2020, 8, 18097-18109.	4.2	2
29	Enhanced Intra Prediction for Video Coding by Using Multiple Neural Networks. IEEE Transactions on Multimedia, 2020, 22, 2764-2779.	7.2	14
30	CNN Based Optimal Intra Prediction Mode Estimation in Video Coding. , 2020, , .		2
31	Fully Neural Network Mode Based Intra Prediction of Variable Block Size. , 2020, , .		3
32	HEVC Video Coding with Deep Learning Based Frame Interpolation. , 2020, , .		1
33	Accuracy Evaluation of Corridor Width Estimation using RGB-D Camera. , 2020, , .		0
34	Road Crack Detection Using U-Net. , 2020, , .		0
35	Reinforcement Learning Based Adaptive Video Streaming on Named Data Networking. , 2020, , .		1
36	Curb Height Estimation using 2DLiDAR mounted on e-Bike. , 2020, , .		0

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37	Convolutional Neural Network based Inverse Tone Mapping for High Dynamic Range Display using LUCORE. , 2019, , .		3
38	Gamut-Extension Methods Considering Color Information Restoration. IEEE Access, 2019, 7, 80146-80158.	4.2	3
39	IoT Device Virtualization for Efficient Resource Utilization in Smart City IoT Platform. , 2019, , .		18
40	Evaluation of Throughput Prediction for Adaptive Bitrate Control Using Trace-Based Emulation. IEEE Access, 2019, 7, 51346-51356.	4.2	13
41	TCP throughput characteristics over 5G millimeterwave network in indoor train station. , 2019, , .		10
42	Performance Evaluations of IoT Device Virtualization for Efficient Resource Utilization. , 2019, , .		5
43	A Function Clustering Algorithm for Resource Utilization in Service Function Chaining. , 2019, , .		1
44	A Gamut-Extension Method Considering Color Information Restoration using Convolutional Neural Networks. , 2019, , .		0
45	Improvement of H.265/HEVC Encoding for 8K UHDTV by GOP Size and Prediction Mode Selection. , 2019, , .		2
46	Accuracy evaluations of contact-free heart rate measurement mehods using 4K facial images. , 2019, , .		0
47	Methods for Adaptive Video Streaming and Picture Quality Assessment to Improve QoS/QoE Performances. IEICE Transactions on Communications, 2019, E102.B, 1240-1247.	0.7	3
48	Performance Evaluations of Viewport Movement Prediction and Rate Adaptation for Tile-Based 360-Degree Video Delivery. , 2019, , .		0
49	Performance Evaluations of Tile-based 360-degree DASH Streaming with Clustering-based Viewport Prediction. , 2019, , .		0
50	Dual Learning-based Video Coding with Inception Dense Blocks. , 2019, , .		5
51	Proxy-Assisted Rate Adaptation for 4K Video Streaming on Named Data Networking. , 2019, , .		3
52	Fast QTMT Partition Decision Algorithm in VVC Intra Coding based on Variance and Gradient. , 2019, , .		42
53	Performance Evaluations of IEEE 802.11ad and Human Pose Detection towards Intelligent Video Surveillance System. , 2019, , .		1
54	Learning Image and Video Compression Through Spatial-Temporal Energy Compaction. , 2019, , .		53

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55	Road Infrastructure Monitoring System using E-Bikes and Its Extensions for Smart Community. , 2019, , .		8
56	Perceptual Quality Study on Deep Learning Based Image Compression. , 2019, , .		16
57	A Highly Accurate Transportation Mode Recognition Using Mobile Communication Quality. IEICE Transactions on Communications, 2019, E102.B, 741-750.	0.7	1
58	Edge-centric field monitoring system for energy-efficient and network-friendly field sensing. , 2018, , .		7
59	[Invited Paper] Overview of Multimedia Mobile Edge Computing. ITE Transactions on Media Technology and Applications, 2018, 6, 46-52.	0.5	9
60	Improvement of H.265/HEVC encoding for 8K UHDTV by CU size expansion and inter/intra prediction mode selection. , 2018, , .		0
61	A study on color-space conversion method considering color information restoration. , 2018, , .		4
62	Performance evaluations of multimedia service function chaining in edge clouds. , 2018, , .		10
63	TRUST: A TCP Throughput Prediction Method in Mobile Networks. , 2018, , .		25
64	Throughput Prediction Using Recurrent Neural Network Model. , 2018, , .		8
65	Adaptive Bit-rate Video Streaming on Named Data Networking with Active Throughput Estimation. , 2018, , .		1
66	Light-Weight Video Coding Based on Perceptual Video Quality for Live Streaming. , 2018, , .		0
67	Deep Inverse Tone Mapping Optimized for High Dynamic Range Display. , 2018, , .		1
68	Adaptive Video Streaming on Named Data Networking with IoT-Assisted Content Delivery. , 2018, , .		2
69	A Fast No-Reference Screen Content Image Quality Prediction Using Convolutional Neural Networks. , 2018, , .		6
70	Machine Learning Based Transportation Modes Recognition Using Mobile Communication Quality. , 2018, , .		4
71	A Fully-Blind and Fast Image Quality Predictor with Convolutional Neural Networks. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2018, E101.A, 1557-1566.	0.3	3
72	Proactive Interest Adaptation and Content Caching for Adaptive Bit-Rate Video Streaming Over NDN. , 2018, , .		6

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73	Edge-centric Video Surveillance System Based on Event-driven Rate Adaptation for 24-hour Monitoring. , 2018, , .		4
74	Deep Convolutional AutoEncoder-based Lossy Image Compression. , 2018, , .		110
75	Perceptual Quality Driven Adaptive Video Coding Using JND Estimation. , 2018, , .		13
76	HOAH: A Hybrid TCP Throughput Prediction with Autoregressive Model and Hidden Markov Model for Mobile Networks. IEICE Transactions on Communications, 2018, E101.B, 1612-1624.	0.7	12
77	Performance evaluations of software-defined acoustic MIMO-OFDM transmission. , 2018, , .		3
78	Intelligent Video Surveillance System Based on Event Detection and Rate Adaptation by Using Multiple Sensors. IEICE Transactions on Communications, 2018, E101.B, 688-697.	0.7	2
79	A Transmission Control Protocol for Long Distance High-Speed Wireless Communications. IEICE Transactions on Communications, 2018, E101.B, 1045-1054.	0.7	10
80	Energy-Efficient Mobile Video Delivery Utilizing Moving Route Navigation and Video Playout Buffer Control. IEICE Transactions on Communications, 2018, E101.B, 1635-1644.	0.7	2
81	Image quality evaluations of image enhancement under various encoding rates for video surveillance system. , 2017, , .		5
82	A History-Based TCP Throughput Prediction Incorporating Communication Quality Features by Support Vector Regression for Mobile Network. , 2017, , .		8
83	A Pre-Saliency Map Based Blind Image Quality Assessment via Convolutional Neural Networks. , 2017, , .		17
84	QoS and QoE evaluations of 2K and 4K video distribution using MPEG-DASH. , 2017, , .		1
85	Green video delivery system using moving route navigation and playout buffer control. , 2017, , .		2
86	Accuracy evaluations of human moving pattern using communication quality based on machine learning. , 2017, , .		3
87	QoS and QoE Evaluations of 2K and 4K DASH Contents Distributions. , 2017, , .		0
88	Proactive Content Caching for Mobile Video Utilizing Transportation Systems and Evaluation Through Field Experiments. IEEE Journal on Selected Areas in Communications, 2016, 34, 2102-2114.	14.0	36
89	Content Oriented Surveillance System Based on Information-Centric Network. , 2016, , .		12
90	Accuracy improvement in human detection using HOG features on train-mounted camera. , 2016, , .		7

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91	Evaluation and analysis of system latency of edge computing for multimedia data processing. , 2016, , .		6
92	History-based throughput prediction with Hidden Markov Model in mobile networks. , 2016, , .		7
93	Enhancement of HCCA utilizing capture effect to support high QoS and DCF friendliness. , 2016, , .		4
94	Improvement of H.265/HEVC encoding for 8K UHDTV by detecting motion complexity. , 2016, , .		1
95	Energy Consumption Evaluation of ICN Toward Power-Saving Video Delivery. , 2015, , .		2
96	Energy-Efficient Video Streaming over Named Data Networking Using Interest Aggregation and Playout Buffer Control. , 2015, , .		8
97	QoS improvement of mobile 4K video by using radio quality map. , 2015, , .		4
98	An Adaptive H.265/HEVC Encoding Control for 8K UHDTV Movies Based on Motion Complexity Estimation. , 2015, , .		0
99	Content Offloading System on CCN Architecture Utilizing Transportation Systems. , 2015, , .		0
100	Performance Evaluation of Proactive Content Caching for Mobile Video through 50-User Field Experiment. , 2015, , .		3
101	Outbound face selection considering response time and buffer usage for CCN adaptive video streaming. , 2015, , .		4
102	Evaluations of 4K/2K video streaming using MPEG-DASH with buffering behavior analysis. , 2015, , .		0
103	Improvement of 8K UHDTV picture quality for H.265/HEVC by global zoom estimation. , 2015, , .		3
104	A highly-reliable buffer strategy based on long-term throughput prediction for mobile video streaming. , 2015, , .		8
105	Transportation means identification of content delivery system for consumer electronic devices. , 2015, , .		0
106	Development of software-defined acoustic communication platform and its evaluations. , 2015, , .		1
107	Implementation evaluation of proactive content caching using DASH-NDN-JS. , 2015, , .		6
108	[Paper] A Study on Motion Estimation using Block Matching for Spatially Periodic Patterns. ITE Transactions on Media Technology and Applications, 2015, 3, 58-66.	0.5	0

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109	[Paper] Performance Evaluations of Comfort Route Navigation Providing High-QoS Communication for Mobile Users. ITE Transactions on Media Technology and Applications, 2014, 2, 327-335.	0.5	5
110	Improvement of height estimation of low birth weight infants, newborns and infants image processing system using Kinect. , 2014, , .		0
111	Comfort route navigation providing high communication Quality and Energy Saving for mobile devices. , 2014, , .		2
112	Performance analysis and validation of high QoS route navigation for mobile users. , 2014, , .		0
113	Traffic sign recognition by distorted template matching. , 2014, , .		0
114	Proactive content caching utilizing transportation systems and its evaluation by field experiment. , 2014, , .		14
115	Improvement of 2-D picture quality for H.265/HEVC by occluded region detection using 3-D depth map. , 2014, , .		0
116	Improvement of throughput prediction accuracy for video streaming in mobile environment. , 2014, , .		3
117	Effects of Audio Compression on Chord Recognition. Lecture Notes in Computer Science, 2014, , 345-352.	1.3	2
118	[Foreword] Welcome to the Special Section on Multimedia Transmission System and Services. ITE Transactions on Media Technology and Applications, 2014, 2, 298-298.	0.5	0
119	[Paper] Selecting Higher Wireless Connection Capacity Routes with/without Predicting Congestion in Access Networks. ITE Transactions on Media Technology and Applications, 2014, 2, 345-352.	0.5	0
120	Image Super-resolution Method Using Registration of Multi-scale Wavelet Components with Consideration of Digital Cinema Noise. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2014, 68, J92-J98.	0.1	2
121	[Paper] Blind PSNR Estimation of Compressed Video Sequences Supported by Machine Learning. ITE Transactions on Media Technology and Applications, 2014, 2, 353-361.	0.5	1
122	Video streaming over content centric networking: Experimental studies on PlanetLab. , 2013, , .		11
123	BRAEVE: Stable and adaptive BSM rate control over IEEE802.11p vehicular networks. , 2013, , .		6
124	Super-resolution from digital cinema to ultra high definition television using image registration of wavelet multi-scale components. , 2013, , .		6
125	Image Super-resolution Using Registration of Wavelet Multi-scale Components with Affine Transformation. , 2013, , .		1
126	A study on gait recognition using LPC cepstrum for mobile terminal. , 2013, , .		1

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127	An adaptive TCP congestion control having RTT-fairness and inter-protocol friendliness. , 2013, , .		0
128	Quality of service of mobile users for longcut routes with congested access points. , 2013, , .		4
129	Quality assessment of compressed video sequences having blocking artifacts by cepstrum analysis. , 2013, , .		2
130	RoCNet: Spatial mobile data offload with user-behavior prediction through delay tolerant networks. , 2013, , .		13
131	TCP differentiation using version identification and EDCA for low-delay multimedia streaming. , 2013, , .		1
132	[Paper] Service Differentiation Based Incentive Mechanism for P2P Streaming in Hybrid Overlay Network. ITE Transactions on Media Technology and Applications, 2013, 1, 167-177.	0.5	1
133	[Paper] A Contribution-Aware Multiple Parent Hierarchical Overlay Network for P2P Media Streaming. ITE Transactions on Media Technology and Applications, 2013, 1, 70-80.	0.5	0
134	Subjective Quality Metric for 3D Video Services. IEICE Transactions on Communications, 2013, E96.B, 410-418.	0.7	2
135	A bit-depth scalable video coding approach considering spatial gradation restoration. , 2012, , .		2
136	A New TCP Congestion Control Supporting RTT-Fairness. IEICE Transactions on Information and Systems, 2012, E95-D, 523-531.	0.7	5
137	Providing service differentiation for video streaming in hybrid P2P overlay network. , 2012, , .		1
138	QoS characteristics on a longcut route with various radio resource models. , 2012, , .		5
139	Chord recognition using Doubly Nested Circle of Fifths. , 2012, , .		2
140	Wavelet domain image super-resolution from digital cinema to ultrahigh definition television by dividing noise component. , 2012, , .		2
141	Music Part Segmentation in Music TV Programs Based on Chroma Vector Analysis. , 2012, , .		0
142	Improving the performance of SIFT using Bilateral Filter and its application to generic object recognition. , 2012, , .		5
143	Spatial uplink mobile data offloading leveraging store-carry-forward paradigm. , 2012, , .		1
144	ToMo: A Two-Layer Mesh/Tree Structure for Live Streaming in P2P Overlay Network. , 2010, , .		26

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145	A contribution-aware multiple parent overlay network for P2P media streaming. , 2010, , .		2
146	Hybrid Application Layer Multicast with Hierarchically Distributed Nodes. , 2010, , .		0
147	A Novel Algorithm to Control Contents Selectively for Vehicular Communication Networks. , 2010, , .		1
148	Overlay tree construction to distribute layered streaming by application layer multicast. IEEE Transactions on Consumer Electronics, 2010, 56, 1957-1962.	3.6	8
149	A hybrid TCP-friendly rate control for multimedia streaming. , 2010, , .		2
150	Implementation experiments to evaluate a new TCP congestion control supporting loss-fairness. , 2010, , .		0
151	Robust Mesh-Based Data Delivery over Multiple Tree-Shaped Routes in P2P Overlay Network. , 2009, , .		4
152	Priority Based Selection to Improve Contents Consistency for Mobile Overlay Network. , 2009, , .		1
153	Efficient Construction in ALM with Assignment of Layered Degree and ALM-Bi-Cast. , 2009, , .		1
154	Improvement of RTT-fairness in Hybrid TCP congestion control. , 2009, , .		2
155	A Scalable Monitoring System for Distributed Environments. , 2009, , .		0
156	Feature Analysis and Normalization Approach for Robust Content-Based Music Retrieval to Encoded Audio with Different Bit Rates. Lecture Notes in Computer Science, 2009, , 298-309.	1.3	5
157	Simple Model Analysis and Performance Tuning of Hybrid TCP Congestion Control. , 2008, , .		4
158	Consistency and update in mobile overlay networks. , 2008, , .		0
159	Denoising intra-coded moving pictures using motion estimation and pixel shift. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	1
160	Support Strong Consistency for Mobile Dynamic Contents Delivery Network. , 2007, , .		0
161	Efficient Consistency Control for Mobile Dynamic Contents Delivery Network. , 2007, , .		0
162	Scalable Maintenance for Strong Web Consistency in Dynamic Content Delivery Overlays. , 2007, , .		8

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163	Strategies towards robust and stable application layer multicast. , 2007, , .		5
164	Selective Update Approach to Maintain Strong Web Consistency in Dynamic Content Delivery. IEICE Transactions on Communications, 2007, E90-B, 2729-2737.	0.7	2
165	Experimental evaluation of an on-demand multipath routing protocol for video transmission in mobile ad hoc networks. Journal of Zhejiang University: Science A, 2006, 7, 145-150.	2.4	3
166	Minimizing Video Switching/Composition Delay by Controlling Video Sync Phases. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2006, 60, 1789-1795.	0.1	0
167	IP Telephony. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2006, 60, 163-164.	0.1	0
168	Internet Broadcasting. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2006, 60, 47-49.	0.1	1
169	Proactive Route Maintenance for Tree-Based Application Layer Multicast and Its Implementations. IEICE Transactions on Information and Systems, 2006, E89-D, 2856-2866.	0.7	2
170	Tree-based application layer multicast using proactive route maintenance and its implementation. , 2005, , .		15
171	A new approach for the construction of ALM trees using layered video coding. , 2005, , .		18
172	Supporting Consistency Management in Dynamic Content Distribution Overlays. , 2005, , .		0
173	Reno Friendly TCP Westwood based on Router Buffer Estimation. , 2005, , .		7
174	An integrated Retrieval and Pre-fetching algorithms for Segmented Streaming in Mobile Peer-to-Peer Networks. , 2005, , .		3
175	A New Approach for the Construction of ALM Trees using Layered Coding. , 2005, , .		3
176	Scalable Consistency Management in Dynamic Content Distribution Overlays. , 2005, , .		0
177	Proactive Route Maintenance and Overhead Reduction for Application Layer Multicast. , 2005, , .		8
178	A method of gender classification by integrating facial, hairstyle, and clothing images. , 2004, , .		17
179	Dynamic Walks for Searching Streaming Media in Peer-to-Peer Networks. Lecture Notes in Computer Science, 2004, , 147-156.	1.3	0
180	Application Layer Multicast with Proactive Route Maintenance over Redundant Overlay Trees. Lecture Notes in Computer Science, 2004, , 306-313.	1.3	5

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181	Replication algorithms to retrieve scalable streaming media over Content Delivery Networks. , 2003, , .		3
182	System architecture for synthetic/natural hybrid coding and some experiments. IEEE Transactions on Circuits and Systems for Video Technology, 1999, 9, 325-335.	8.3	1
183	Structure recovery with multiple cameras from scaled orthographic and perspective views. IEEE Transactions on Pattern Analysis and Machine Intelligence, 1999, 21, 628-633.	13.9	7
184	MPEG New Aspect Deployment. 3. New Techniques in the MPEG-4 Visual Standard. 3-1. MPEG-4 Visual Standard.. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 1999, 53, 485-491.	0.1	1
185	Improved scanning methods for wavelet coefficients of video signals. Signal Processing: Image Communication, 1996, 8, 365-378.	3.2	2
186	A wavelet codec with overlapped motion compensation for very low bit-rate environment. IEEE Transactions on Circuits and Systems for Video Technology, 1994, 4, 328-338, 365.	8.3	33
187	Variable bit-rate coding based on human visual system. Signal Processing: Image Communication, 1991, 3, 313-320.	3.2	1
188	Performance evaluation of subband coding and optimization of its filter coefficients. Journal of Visual Communication and Image Representation, 1991, 2, 303-313.	2.8	87
189	<title>Performance evaluation of subband coding and optimization of its filter coefficients</title>. , 1991, , .		52
190	Cell loss protection using hierarchical coding in video packet communication. Electronics and Communications in Japan, 1990, 73, 52-62.	0.1	4
191	A new structure of parallel filter bank allowing perfect reconstruction. , 0, , .		0