

Chul-Heung Kim

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4511599/publications.pdf>

Version: 2024-02-01

21
papers

356
citations

1039880

9
h-index

940416

16
g-index

21
all docs

21
docs citations

21
times ranked

330
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Emerging memory technologies for neuromorphic computing. Nanotechnology, 2019, 30, 032001. | 1.3 | 62 |
| 2 | Demonstration of Unsupervised Learning With Spike-Timing-Dependent Plasticity Using a TFT-Type NOR Flash Memory Array. IEEE Transactions on Electron Devices, 2018, 65, 1774-1780. | 1.6 | 54 |
| 3 | Adaptive learning rule for hardware-based deep neural networks using electronic synapse devices. Neural Computing and Applications, 2019, 31, 8101-8116. | 3.2 | 47 |
| 4 | Adaptive Weight Quantization Method for Nonlinear Synaptic Devices. IEEE Transactions on Electron Devices, 2019, 66, 395-401. | 1.6 | 31 |
| 5 | A Split-Gate Positive Feedback Device With an Integrate-and-Fire Capability for a High-Density Low-Power Neuron Circuit. Frontiers in Neuroscience, 2018, 12, 704. | 1.4 | 24 |
| 6 | Si-Based FET-Type Synaptic Device With Short-Term and Long-Term Plasticity Using High- κ Gate-Stack. IEEE Transactions on Electron Devices, 2019, 66, 917-923. | 1.6 | 22 |
| 7 | Neuromorphic Technology Based on Charge Storage Memory Devices. , 2018, , . | | 18 |
| 8 | Highly Reliable Inference System of Neural Networks Using Gated Schottky Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 522-528. | 1.2 | 15 |
| 9 | Unsupervised online learning of temporal information in spiking neural network using thin-film transistor-type NOR flash memory devices. Nanotechnology, 2019, 30, 435206. | 1.3 | 13 |
| 10 | Implementation of homeostasis functionality in neuron circuit using double-gate device for spiking neural network. Solid-State Electronics, 2020, 165, 107741. | 0.8 | 12 |
| 11 | Hardware-based spiking neural network architecture using simplified backpropagation algorithm and homeostasis functionality. Neurocomputing, 2021, 428, 153-165. | 3.5 | 12 |
| 12 | Hardware-based Neural Networks using a Gated Schottky Diode as a Synapse Device. , 2018, , . | | 10 |
| 13 | A Spiking Neural Network with a Global Self-Controller for Unsupervised Learning Based on Spike-Timing-Dependent Plasticity Using Flash Memory Synaptic Devices. , 2019, , . | | 9 |
| 14 | Unsupervised Online Learning With Multiple Postsynaptic Neurons Based on Spike-Timing-Dependent Plasticity Using a Thin-Film Transistor-Type NOR Flash Memory Array. Journal of Nanoscience and Nanotechnology, 2019, 19, 6050-6054. | 0.9 | 7 |
| 15 | Synaptic device using a floating fin-body MOSFET with memory functionality for neural network. Solid-State Electronics, 2019, 156, 23-27. | 0.8 | 5 |
| 16 | GIDL Characteristics in Gated-Diode Memory String and Its Application to Current-Steering Digital-to-Analog Conversion. IEEE Transactions on Electron Devices, 2015, 62, 3272-3277. | 1.6 | 4 |
| 17 | Initial synaptic weight distribution for fast learning speed and high recognition rate in STDP-based spiking neural network. Solid-State Electronics, 2020, 165, 107742. | 0.8 | 4 |
| 18 | On-chip trainable hardware-based deep Q-networks approximating a backpropagation algorithm. Neural Computing and Applications, 2021, 33, 9391-9402. | 3.2 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Grayscale Image Recognition Using Spike-Rate-Based Online Learning and Threshold Adjustment of Neurons in a Thin-Film Transistor-Type NOR Flash Memory Array. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 6055-6060. | 0.9 | 2 |
| 20 | Analog synaptic devices applied to spiking neural networks for reinforcement learning applications. <i>Semiconductor Science and Technology</i> , 2022, 37, 075002. | 1.0 | 1 |
| 21 | Analyzation of Positive Feedback device with Steep Subthreshold Swing Characteristics in 14 nm FinFET Technology. , 2019, , . | | 0 |