Tapas Kumar Maiti

List of Publications by Year
in descending order

60 papers	214 citations	1163117 8 h-index	1199594 12 g-index
60 all docs	60 docs citations	60 times ranked	199 citing authors

#	Article	IF	Citations
1	Inverse Kinematics Based Computational Framework for Robot Manipulation Inspired by Human Movements. Advances in Intelligent Systems and Computing, 2021, , 201-215.	0.6	1
2	Analysis of Sensor-Based Real-Time Balancing of Humanoid Robots on Inclined Surfaces. IEEE Access, 2020, 8, 212327-212338.	4.2	12
3	Surface-Property Recognition With Force Sensors for Stable Walking of Humanoid Robot. IEEE Access, 2019, 7, 146443-146456.	4.2	9
4	Optimization of DC-DC Power Converter Design with Second Generation HiSIM_HV Model. , 2019, , .		0
5	Power Reduction and BTI Mitigation of Data-Cache Memory Based on the Storage Management of Narrow-Width Values. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 1675-1684.	3.1	4
6	NVDL-Cache: Narrow-Width Value Aware Variable Delay Low-Power Data Cache. , 2019, , .		1
7	Dynamic Pattern-Recognition-Based Walking-Speed Adjustment for Stable Biped-Robot Movement under Changing Surface Conditions. , 2019, , .		2
8	Prevention of Highly Power-Efficient Circuits due to Short-Channel Effects in MOSFETs. IEICE Transactions on Electronics, 2019, E102.C, 487-494.	0.6	1
9	Compact modeling of dynamic trap density evolution for predicting circuit-performance aging. Microelectronics Reliability, 2018, 80, 164-175.	1.7	8
10	System Simulation for Robot Control Based on AI Approach. , 2018, , .		1
11	Modeling of multi-dimensional system and its application for robot development. , 2018, , .		0
12	Modeling of Carrier Trapping and Its Impact on Switching Performance. IEEE Journal of the Electron Devices Society, 2018, 6, 1056-1063.	2.1	5
13	Consistent Predictive Simulation of SRAM-Cell Performance Degradation Including Both MOSFET Fabrication Variation and Aging. , 2018, , .		0
14	MOSFET optimization toward power efficient circuit design. , 2018, , .		2
15	Machine learning algorithm for autonomous control of walking robot. , 2018, , .		5
16	Self-controlled walking robot with gyro sensor network for stable movement on non-smooth surfaces. , 2018, , .		0
17	Walking robot movement on non-smooth surface controlled by pressure sensor. Advanced Materials Letters, 2018, 9, 123-127.	0.6	7
18	Physics based system simulation for robot electro-mechanical control design. , 2017, , .		7

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19	High-efficiency c-Si based interdigitated point contact back heterojunction solar cells. Journal of Materials Science: Materials in Electronics, 2017, 28, 9697-9703.	2.2	2
20	Circuit-aging modeling based on dynamic MOSFET degradation and its verification. , 2017, , .		4
21	Compact Electro-Mechanical-Fluidic Model for Actuated Fluid Flow System. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 124-133.	2.2	3
22	Modeling of dynamic trap density increase for aging simulation of any MOSFET circuits. , 2017, , .		3
23	Welcome to ASICON 2017. , 2017, , .		0
24	Compact modeling approach for electro-mechanical system simulation. , 2017, , .		1
25	Actuator-Control Circuit Based on OTFTs and Flow-Rate Estimation for an All-Organic Fluid Pump. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2016, E99.A, 798-805.	0.3	3
26	Physically Based Compact Mobility Model for Organic Thin-Film Transistor. IEEE Transactions on Electron Devices, 2016, 63, 2057-2065.	3.0	11
27	Compact modeling for system level simulation based on multi-physics. , 2016, , .		1
28	Analysis of printed organic MOSFET characteristics with a focus on the temperature dependence. Japanese Journal of Applied Physics, 2016, 55, 04EL05.	1.5	1
29	Mixed-domain compact modeling framework for fluid flow driven by electrostatic organic actuators. , 2015, , .		2
30	Modeling of electrostatically actuated fluid flow system for mixed-domain simulation. , 2015, , .		4
31	Temperature Dependence Analysis of Printed Organic MOSFET. , 2015, , .		0
32	A Surface Potential Based Organic Thin-Film Transistor Model for Circuit Simulation Verified With DNTT High Performance Test Devices. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 159-168.	1.7	17
33	Two-dimensional simulation studies on high-efficiency point contact back heterojunction (a-Si:H/c-Si) solar cells. Solar Energy, 2014, 105, 109-115.	6.1	14
34	Organic thin-film transistor compact model with accurate charge carrier mobility. , 2014, , .		5
35	OTFT Circuit Design for Actuator Driving Control in an Organic Fluid Pump. , 2014, , .		3
36	Influence of emitter bandgap on interdigitated point contact back heterojunction (a-Si:H/c-Si) solar cell performance. Solar Energy Materials and Solar Cells, 2013, 109, 199-203.	6.2	8

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37	Benchmarking of a surface potential based organic thin-film transistor model against C<inf>10</inf>-DNTT high performance test devices. , 2013, , .		4
38	Effects of substrate strain and electrical stress on lattice dynamics, defects, and traps in strained-Si/Si0.81Ge0.19 n-type metal-oxide-semiconductor field effect transistors. Journal of Applied Physics, 2012, 111, 104507.	2.5	2
39	Hybrid orientation technology and strain engineering for ultra-high speed MOSFETs. Bulletin of Materials Science, 2012, 35, 859-865.	1.7	3
40	Modeling of the electrical carrier transport in III-V on silicon tandem solar cell structures. Proceedings of SPIE, 2011, , .	0.8	0
41	Negative bias temperature instability in strain-engineered p-MOSFETs: a simulation study. Journal of Computational Electronics, 2010, 9, 1-7.	2.5	6
42	Random Telegraph Noise characterization of p-type silicon nanowire FinFETs. , 2010, , .		2
43	NONEQUILIBRIUM GREEN'S FUNCTION BASED QUANTUM TRANSPORT SIMULATION FOR STRAINED-ENGINEERED NANOSCALE TRANSISTORS IN THE PRESENCE OF ELECTRON–PHONON INTERACTIONS. International Journal of Nanoscience, 2010, 09, 327-333.	0.7	0
44	An Explicit Surface-Potential Based Biaxial Strained-Si n-MOSFET Model for Circuit Simulation. Engineering, 2010, 02, 879-887.	0.8	6
45	Design and optimization of c-Silicon solar cell using Process Compact Model (PCM). , 2009, , .		0
46	Charge-based Mobility Modeling for Organic Semiconductors. , 2009, , .		0
47	Modeling of radiation-induced displacement damage in silicon solar cells: Frenkel defect. , 2009, , .		0
48	Performance improvement of flash memory using AlN as charge-trapping Layer. Microelectronic Engineering, 2009, 86, 299-302.	2.4	28
49	Online MOS Capacitor Characterization in LabVIEW Environment. International Journal of Online and Biomedical Engineering, 2009, 5, 57.	1.4	4
50	CMOS performance enhancement in Hybrid Orientation Technologies. Journal of Computational Electronics, 2008, 7, 181-186.	2.5	3
51	Strained-Si MOSFETs for Low-Power Applications. ECS Transactions, 2008, 14, 203-211.	0.5	0
52	DIBL in short-channel strained-Si n-MOSFET. , 2008, , .		6
53	Stress-induced degradation in strain-engineered nMOSFETs. , 2008, , .		1
54	Scaling of Strain-Engineered MOSFETs. IETE Journal of Research, 2007, 53, 263-276.	2.6	1

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55	Low temperature behavior of strained-Si n-MOSFETs. , 2007, , .		0
56	Finite element analysis of heat transfer in nanowires (NWs). , 2007, , .		0
57	Reliability predictions for strained-Si/SiGe Quantum-well p-MOSFETs. , 2007, , .		0
58	RF performance of process-induced strain-engineered n-MOSFETs. , 2007, , .		0
59	Technology CAD of non-volatile SONOS memory devices. , 2007, , .		0
60	Radiation effects on strain-engineered p-MOSFETs. , 2007, , .		1