

Tapas Kumar Maiti

List of Publications by Year in descending order

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60
papers

214
citations

1163117

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h-index

1199594

12
g-index

60
all docs

60
docs citations

60
times ranked

199
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance improvement of flash memory using AlN as charge-trapping Layer. Microelectronic Engineering, 2009, 86, 299-302.	2.4	28
2	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
3	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
4	Analysis of Sensor-Based Real-Time Balancing of Humanoid Robots on Inclined Surfaces. IEEE Access, 2020, 8, 212327-212338.	4.2	12
5	Physically Based Compact Mobility Model for Organic Thin-Film Transistor. IEEE Transactions on Electron Devices, 2016, 63, 2057-2065.	3.0	11
6	Surface-Property Recognition With Force Sensors for Stable Walking of Humanoid Robot. IEEE Access, 2019, 7, 146443-146456.	4.2	9
7	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
8	Compact modeling of dynamic trap density evolution for predicting circuit-performance aging. Microelectronics Reliability, 2018, 80, 164-175.	1.7	8
9	Physics based system simulation for robot electro-mechanical control design. , 2017, , .		7
10	Walking robot movement on non-smooth surface controlled by pressure sensor. Advanced Materials Letters, 2018, 9, 123-127.	0.6	7
11	DIBL in short-channel strained-Si n-MOSFET. , 2008, , .		6
12	Negative bias temperature instability in strain-engineered p-MOSFETs: a simulation study. Journal of Computational Electronics, 2010, 9, 1-7.	2.5	6
13	An Explicit Surface-Potential Based Biaxial Strained-Si n-MOSFET Model for Circuit Simulation. Engineering, 2010, 02, 879-887.	0.8	6
14	Organic thin-film transistor compact model with accurate charge carrier mobility. , 2014, , .		5
15	Modeling of Carrier Trapping and Its Impact on Switching Performance. IEEE Journal of the Electron Devices Society, 2018, 6, 1056-1063.	2.1	5
16	Machine learning algorithm for autonomous control of walking robot. , 2018, , .		5
17	Benchmarking of a surface potential based organic thin-film transistor model against C<inf>10</inf>-DNTT high performance test devices. , 2013, , .		4
18	Modeling of electrostatically actuated fluid flow system for mixed-domain simulation. , 2015, , .		4

#	ARTICLE	IF	CITATIONS
19	Circuit-aging modeling based on dynamic MOSFET degradation and its verification. , 2017, , .		4
20	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
21	Online MOS Capacitor Characterization in LabVIEW Environment. International Journal of Online and Biomedical Engineering, 2009, 5, 57.	1.4	4
22	CMOS performance enhancement in Hybrid Orientation Technologies. Journal of Computational Electronics, 2008, 7, 181-186.	2.5	3
23	Hybrid orientation technology and strain engineering for ultra-high speed MOSFETs. Bulletin of Materials Science, 2012, 35, 859-865.	1.7	3
24	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
25	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
26	Modeling of dynamic trap density increase for aging simulation of any MOSFET circuits. , 2017, , .		3
27	OTFT Circuit Design for Actuator Driving Control in an Organic Fluid Pump. , 2014, , .		3
28	Random Telegraph Noise characterization of p-type silicon nanowire FinFETs. , 2010, , .		2
29	Effects of substrate strain and electrical stress on lattice dynamics, defects, and traps in strained-Si/Si _{0.81} Ge _{0.19} n-type metal-oxide-semiconductor field effect transistors. Journal of Applied Physics, 2012, 111, 104507.	2.5	2
30	Mixed-domain compact modeling framework for fluid flow driven by electrostatic organic actuators. , 2015, , .		2
31	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
32	MOSFET optimization toward power efficient circuit design. , 2018, , .		2
33	Dynamic Pattern-Recognition-Based Walking-Speed Adjustment for Stable Biped-Robot Movement under Changing Surface Conditions. , 2019, , .		2
34	Scaling of Strain-Engineered MOSFETs. IETE Journal of Research, 2007, 53, 263-276.	2.6	1
35	Radiation effects on strain-engineered p-MOSFETs. , 2007, , .		1
36	Stress-induced degradation in strain-engineered nMOSFETs. , 2008, , .		1

#	ARTICLE	IF	CITATIONS
37	Compact modeling for system level simulation based on multi-physics. , 2016, , .		1
38	Analysis of printed organic MOSFET characteristics with a focus on the temperature dependence. Japanese Journal of Applied Physics, 2016, 55, 04EL05.	1.5	1
39	Compact modeling approach for electro-mechanical system simulation. , 2017, , .		1
40	System Simulation for Robot Control Based on AI Approach. , 2018, , .		1
41	NVDL-Cache: Narrow-Width Value Aware Variable Delay Low-Power Data Cache. , 2019, , .		1
42	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
43	Inverse Kinematics Based Computational Framework for Robot Manipulation Inspired by Human Movements. Advances in Intelligent Systems and Computing, 2021, , 201-215.	0.6	1
44	Low temperature behavior of strained-Si n-MOSFETs. , 2007, , .		0
45	Finite element analysis of heat transfer in nanowires (NWs). , 2007, , .		0
46	Reliability predictions for strained-Si/SiGe Quantum-well p-MOSFETs. , 2007, , .		0
47	RF performance of process-induced strain-engineered n-MOSFETs. , 2007, , .		0
48	Technology CAD of non-volatile SONOS memory devices. , 2007, , .		0
49	Strained-Si MOSFETs for Low-Power Applications. ECS Transactions, 2008, 14, 203-211.	0.5	0
50	Design and optimization of c-Silicon solar cell using Process Compact Model (PCM). , 2009, , .		0
51	Charge-based Mobility Modeling for Organic Semiconductors. , 2009, , .		0
52	Modeling of radiation-induced displacement damage in silicon solar cells: Frenkel defect. , 2009, , .		0
53	NONEQUILIBRIUM GREEN'S FUNCTION BASED QUANTUM TRANSPORT SIMULATION FOR STRAINED-ENGINEERED NANOSCALE TRANSISTORS IN THE PRESENCE OF ELECTRON-â€“PHONON INTERACTIONS. International Journal of Nanoscience, 2010, 09, 327-333.	0.7	0
54	Modeling of the electrical carrier transport in III-V on silicon tandem solar cell structures. Proceedings of SPIE, 2011, , .	0.8	0

#	ARTICLE	IF	CITATIONS
55	Welcome to ASICON 2017., 2017,, .		0
56	Modeling of multi-dimensional system and its application for robot development. , 2018, , .		0
57	Consistent Predictive Simulation of SRAM-Cell Performance Degradation Including Both MOSFET Fabrication Variation and Aging. , 2018, , .		0
58	Self-controlled walking robot with gyro sensor network for stable movement on non-smooth surfaces. , 2018, , .		0
59	Optimization of DC-DC Power Converter Design with Second Generation HiSIM_HV Model. , 2019, , .		0
60	Temperature Dependence Analysis of Printed Organic MOSFET. , 2015, , .		0