

Saurabh Sinha

List of Publications by Year in descending order

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157
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171
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171
docs citations

171
times ranked

413
citing authors

#	ARTICLE	IF	CITATIONS
1	Colonization by Algorithms in the Fourth Industrial Revolution. IEEE Access, 2022, 10, 11057-11064.	2.6	4
2	Steering and Rowing through a Crisis Pandemic Leadership in Higher Education. , 2022, , 13-31.		0
3	Futuristic Technological Aspects of 6G Networks. Lecture Notes in Electrical Engineering, 2021, , 221-248.	0.3	1
4	6G Networks: Fusion of Communications, Sensing, Imaging, Localization and Other Verticals. Lecture Notes in Electrical Engineering, 2021, , 305-335.	0.3	3
5	6G: The Intelligent Network. Lecture Notes in Electrical Engineering, 2021, , 249-279.	0.3	1
6	Visible Light Communications for 6G. Lecture Notes in Electrical Engineering, 2021, , 155-188.	0.3	2
7	The Past, Present and Future of Telecommunications Expansion: A Historical Perspective. Lecture Notes in Electrical Engineering, 2021, , 31-61.	0.3	0
8	Device Technologies and Circuits for 5G and 6G. Lecture Notes in Electrical Engineering, 2021, , 99-154.	0.3	2
9	A Paradigm Shift in Higher Education in the Context of the Fourth Industrial Revolution. IEEE Potentials, 2021, 40, 13-18.	0.2	3
10	Mobile Communication Networks: 5G and a Vision of 6G. Lecture Notes in Electrical Engineering, 2021, , .	0.3	8
11	6G: The Green Network. Lecture Notes in Electrical Engineering, 2021, , 189-220.	0.3	3
12	5G and 6G Networks: Should There Be a Health Concern?. Lecture Notes in Electrical Engineering, 2021, , 281-304.	0.3	0
13	A Review of 4IR/5IR Enabling Technologies and Their Linkage to Manufacturing Supply Chain. Technologies, 2021, 9, 77.	3.0	8
14	The Role of Millimeter-Wave and 5G in the Fourth Industrial Revolution. Lecture Notes in Electrical Engineering, 2021, , 1-48.	0.3	2
15	Transceivers for the Fourth Industrial Revolution. Millimeter-Wave Frequency Mixers and Oscillators. Lecture Notes in Electrical Engineering, 2021, , 75-122.	0.3	0
16	Transceivers for the Fourth Industrial Revolution. Millimeter-Wave Low-Noise Amplifiers and Power Amplifiers. Lecture Notes in Electrical Engineering, 2021, , 123-164.	0.3	0
17	Integrated Low Noise Amplifier with Capacitive Shunt Feedback Impedance Matching for Radio Astronomy. Publications of the Astronomical Society of the Pacific, 2021, 133, 015001.	1.0	0
18	Optimization of 4T Pixel Structure BiCMOS Detectors using y-parameter Representation. , 2020, , .		2

#	ARTICLE	IF	CITATIONS
19	Methodologies for Design of Millimeter-Wave and Terahertz Integrated Circuits: An LNA Case Study. , 2020, , .		1
20	Decentralizing Emerging Markets to Prepare for Industry 4.0: Modernizing Policies and the Role of Higher Education. Lecture Notes in Electrical Engineering, 2020, , 111-153.	0.3	5
21	Methodologies for Millimeter-Wave Circuit Design in Extreme Environments. Lecture Notes in Electrical Engineering, 2020, , 165-196.	0.3	0
22	Device Scaling: Going from "Micro" to "Nano" Electronics. Lecture Notes in Electrical Engineering, 2020, , 1-40.	0.3	0
23	Millimeter-Wave Substrates and System-Level Approach in Millimeter-Wave Research and Design. Lecture Notes in Electrical Engineering, 2020, , 75-111.	0.3	0
24	Electronic Design Automation for Millimeter-Wave Research and Design. Lecture Notes in Electrical Engineering, 2020, , 41-73.	0.3	0
25	Getting Ready for Terahertz Electronics. Lecture Notes in Electrical Engineering, 2020, , 221-248.	0.3	2
26	Methodologies for Millimeter-Wave Circuit Design. Lecture Notes in Electrical Engineering, 2020, , 113-164.	0.3	0
27	Further Device Scaling: From Nanoelectronics to Future Technologies. Lecture Notes in Electrical Engineering, 2020, , 197-220.	0.3	0
28	60 GHz BiCMOS active bandpass filters. Microelectronics Journal, 2019, 90, 315-322.	1.1	3
29	Emerging Transistor Technologies Capable of Terahertz Amplification: A Way to Re-Engineer Terahertz Radar Sensors. Sensors, 2019, 19, 2454.	2.1	38
30	Last Mile Internet Access for Emerging Economies. Lecture Notes in Networks and Systems, 2019, , .	0.5	12
31	Integrated Substrates: Millimeter-Wave Transistor Technologies. Smart Sensors, Measurement and Instrumentation, 2019, , 105-128.	0.4	0
32	Systems-Level Packaging for Millimeter-Wave Transceivers. Smart Sensors, Measurement and Instrumentation, 2019, , .	0.4	15
33	A Review of Industry 4.0 Manufacturing Process Security Risks. Applied Sciences (Switzerland), 2019, 9, 5105.	1.3	74
34	Machine and Human is the New Workspace in Emerging Economies: A Phased Approach as the Strategic Framework to Reach Sustainable Economic System Readiness. , 2019, , .		0
35	General Low-Noise Amplifiers. Signals and Communication Technology, 2018, , 151-173.	0.4	1
36	Broadband Low-Noise Amplifiers. Signals and Communication Technology, 2018, , 175-203.	0.4	0

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37	Advanced Low-Noise Amplifier Optimization Topics. Signals and Communication Technology, 2018, , 253-286.	0.4	0
38	A Survey of Current Trends in Master's Programs in Microelectronics. IEEE Transactions on Education, 2018, 61, 151-157.	2.0	9
39	Through-the-Wall Radar Imaging: A Review. IETE Technical Review (Institution of Electronics and) Tj ETQq1 1 0.784314 rgBT /Overlock	2.1	32
40	Scaling Education in Emerging Markets to Participate in Industry 4.0. , 2018, , .		2
41	Fabless Semiconductor Implementation Model as an Enabling Factor for "Virtual Labs" in Online Postgraduate Degrees in Microelectronics. , 2018, , .		1
42	Overlay Virtualized Wireless Sensor Networks for Application in Industrial Internet of Things: A Review. Sensors, 2018, 18, 3215.	2.1	26
43	Millimeter-Wave Low Noise Amplifiers. Signals and Communication Technology, 2018, , .	0.4	15
44	Characterization of diode-connected heterojunction bipolar transistors for near-infrared detecting applications. Optical Engineering, 2018, 57, 1.	0.5	2
45	High-speed Cherry Hooper flash analog-to-digital converter. Microelectronics International, 2017, 34, 22-29.	0.4	2
46	A modified multiphase oscillator with improved phase noise performance. Microelectronics Journal, 2017, 62, 21-29.	1.1	2
47	Characterisation of diode-connected SiGe BiCMOS HBTs for space applications. Proceedings of SPIE, 2017, , .	0.8	1
48	Linearized differential current sensor in low-voltage CMOS. Microelectronics International, 2017, 34, 91-98.	0.4	0
49	A 50 GHz SiGe BiCMOS active bandpass filter. , 2017, , .		7
50	Power Amplifiers for Millimeter-Wave Systems. Signals and Communication Technology, 2017, , 3-38.	0.4	1
51	Systems Aspects of Millimeter-Wave Power Amplifiers. Signals and Communication Technology, 2017, , 39-80.	0.4	0
52	Linear-Mode Millimeter-Wave Power Amplifiers. Signals and Communication Technology, 2017, , 125-162.	0.4	0
53	Performance Enhancement Techniques for Millimeter-Wave Power Amplifiers. Signals and Communication Technology, 2017, , 239-305.	0.4	0
54	Electronic Countermeasures and Directed Energy Weapons: Innovative Optoelectronics Versus Brute Force. Signals and Communication Technology, 2017, , 133-166.	0.4	0

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55	Electronic Warfare Laser Driver Principles: High-Powered Directed Energy Beam Generation. Signals and Communication Technology, 2017, , 67-100.	0.4	0
56	Electronic Warfare Optoelectronic Receiver Fundamentals: Applications and Research Opportunities. Signals and Communication Technology, 2017, , 101-131.	0.4	0
57	Frequency Response of Optoelectronic Receivers: The Motivation for Faster Transistors. Signals and Communication Technology, 2017, , 167-200.	0.4	0
58	SiGe for Radiation Hardening: Spearheading Electronic Warfare in Space. Signals and Communication Technology, 2017, , 201-233.	0.4	0
59	Charged Particle-Beam Acceleration and Lasers: Contextualizing Technologies that Shaped Electronic Warfare. Signals and Communication Technology, 2017, , 29-66.	0.4	0
60	A Review on Si, SiGe, GaN, SiC, InP and GaAs as Enabling Technologies in EW and Space. Signals and Communication Technology, 2017, , 301-329.	0.4	2
61	The Future of Electronic Warfare: Potential Contributions by SiGe. Signals and Communication Technology, 2017, , 269-300.	0.4	1
62	Cantilever for RF applications: Model and technology. , 2017, , .		3
63	Re-inventing postgraduate level teaching and learning in nanoelectronics. , 2017, , .		1
64	Implementation of a 6 GHz MEMS Switch. , 2017, , .		0
65	Millimeter-Wave Power Amplifiers. Signals and Communication Technology, 2017, , .	0.4	20
66	Microwave Photonics: Complementing Light-Wave Technology with High-Speed Electronics. Signals and Communication Technology, 2017, , 235-267.	0.4	0
67	Characterization of Industrial GHG Emission Sources in Urban Planning. Green Energy and Technology, 2017, , 447-484.	0.4	0
68	Increasing the bandwidth of a S_iG_e HBT LNA with minimum impact on noise figure. Microwave and Optical Technology Letters, 2016, 58, 1937-1944.	0.9	2
69	Effect of lossy substrates on series impedance parameters of interconnects. , 2016, , .		3
70	Investigation of the effect of input matching network on 60 GHz low noise amplifier. , 2016, , .		2
71	A 2.5 GHz low phase noise silicon germanium heterojunction bipolar transistor ring oscillator. , 2016, , .		0
72	Comparison of Al and Cu interconnects using VHDL-AMS and SPICE modeling. , 2016, , .		0

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73	Millimeter-Wave Circuits and Components. Signals and Communication Technology, 2016, , 107-131.	0.4	0
74	BiCMOS Colpitts oscillator for vector-sum interpolators. Microelectronics International, 2016, 33, 87-93.	0.4	0
75	Reflector and Lens Antennas. Signals and Communication Technology, 2016, , 85-106.	0.4	0
76	Modelling of Air and Water Pollution Sources. Smart Sensors, Measurement and Instrumentation, 2016, , 63-99.	0.4	0
77	Population Growth in Developing Countries and Smart City Fundamentals. The Internet-of-Things and Wireless Sensor Networks. Smart Sensors, Measurement and Instrumentation, 2016, , 29-62.	0.4	1
78	Power Amplifiers for the S-, C-, X- and Ku-bands. Signals and Communication Technology, 2016, , .	0.4	16
79	Intelligent Automated Design Ideas for Inductor Synthesis. Signals and Communication Technology, 2016, , 199-234.	0.4	0
80	Microsensing Networks for Sustainable Cities. Smart Sensors, Measurement and Instrumentation, 2016, , .	0.4	14
81	Microsensing Networks for Sustainable Cities: Pollution as a Key Driving Factor. Smart Sensors, Measurement and Instrumentation, 2016, , 1-27.	0.4	2
82	Ubiquitous Computing: Distributing Mobile Computing to Build a Global Network of Things. Smart Sensors, Measurement and Instrumentation, 2016, , 201-235.	0.4	4
83	The Sub-systems of an Energy Harvesting Device: Focus on RFID Fundamentals. Smart Sensors, Measurement and Instrumentation, 2016, , 135-163.	0.4	0
84	Harvesting Energy from Ambient Sources: Wind Energy, Hydropower, Radiation and Mechanical Deformation. Smart Sensors, Measurement and Instrumentation, 2016, , 101-134.	0.4	1
85	Practical Considerations of Integrated and Discrete Power Amplifier Solutions. Signals and Communication Technology, 2016, , 309-329.	0.4	0
86	Continuous-Mode Power Amplifiers. Signals and Communication Technology, 2016, , 61-92.	0.4	0
87	Full Power Amplifier System Design. Signals and Communication Technology, 2016, , 235-308.	0.4	0
88	Impedance Matching. Signals and Communication Technology, 2016, , 173-195.	0.4	0
89	Review of Telecommunication Aspects for Power Amplifier Design. Signals and Communication Technology, 2016, , 29-60.	0.4	0
90	Switch-Mode Power Amplifiers. Signals and Communication Technology, 2016, , 93-135.	0.4	0

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91	Introduction to the World of Millimeter-Wave Systems. Signals and Communication Technology, 2016, , 1-18.	0.4	1
92	Printed and Planar Antennas. Signals and Communication Technology, 2016, , 39-60.	0.4	1
93	Leaky-Wave Antennas. Signals and Communication Technology, 2016, , 19-38.	0.4	4
94	Practical Applications of Millimeter-Wave Antennas. Signals and Communication Technology, 2016, , 133-155.	0.4	0
95	Active Integrated Antennas. Signals and Communication Technology, 2016, , 61-84.	0.4	0
96	Geographic Information Systems and Remote Sensing. Smart Sensors, Measurement and Instrumentation, 2016, , 165-199.	0.4	0
97	Estimation of signal attenuation in the 60 GHz band with an analog BiCMOS passive filter. International Journal of Microwave and Wireless Technologies, 2015, 7, 645-653.	1.5	0
98	Noise reduction by pixel circuit optimization in 4-T pixel structure detectors using integrated circuit technologies. , 2015, , .		0
99	A 6-bit, 500-MS/s current-steering DAC in SiGe BiCMOS technology and considerations for SFDR performance. Microelectronics Journal, 2015, 46, 310-319.	1.1	0
100	Designing Linear PAs at Millimeter-Wave Frequencies Using Volterra Series Analysis. Canadian Journal of Electrical and Computer Engineering, 2015, 38, 232-237.	1.5	4
101	RF IC Performance Optimization by Synthesizing Optimum Inductors. , 2015, , 297-330.		4
102	Thermal and flicker noise improvement in short-channel CMOS detectors. Proceedings of SPIE, 2014, , .	0.8	1
103	Ultra-compact capacitively loaded evanescent half-mode SIW filters for LTE applications. International Journal of Microwave and Wireless Technologies, 2014, 6, 487-490.	1.5	3
104	The tunnelling and electron injection reliabilities for FG transistors. Microelectronics International, 2014, 31, 108-115.	0.4	2
105	Linearity improvement analysis for power amplifiers at mm-wave frequencies. Microwave and Optical Technology Letters, 2014, 56, 743-748.	0.9	2
106	A temperature stabilized CMOS VCO. Analog Integrated Circuits and Signal Processing, 2014, 80, 13-21.	0.9	0
107	Impact of SiGe HBT parameters to the performance of LNAs for highly sensitive SKA receivers. , 2013, , .		4
108	Sensitivity of class-E power amplifier performance to individual transistor model parameters. , 2013, , .		0

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109	Development, simulation and construction of cost-effective GTEM cells. , 2013, , .		7
110	Waveguide power combiner with adjustable amplitude and phase response. , 2013, , .		4
111	An electronic solution to automate the process of Grade-1 braille training. , 2013, , .		3
112	Inactivating pathogenic micro-organisms through microwave sterilization technology. , 2013, , .		0
113	Entrepreneurship as an IEEE workforce development theme. , 2013, , .		0
114	An EPICS-in-IEEE initiative: Learners of St Alban's College and students of the University of Pretoria seek earth observation solutions through air-quality microsensing. , 2013, , .		1
115	Phase noise analysis for a mm-wave VCO configuration. Microwave and Optical Technology Letters, 2013, 55, 290-295.	0.9	2
116	Analytical Approach to Design of Proportional-to-the-Absolute-Temperature Current Sources and Temperature Sensors Based on Heterojunction Bipolar Transistors. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 262-274.	1.4	4
117	An optimized multiphase oscillator with harmonic balance analysis for oscillation frequency and amplitude prediction. , 2013, , .		0
118	A frequency agile switched delay line slow-wave BiCMOS filter. , 2013, , .		1
119	A BiCMOS Lumped Element Model for a Millimeter-Wave Dipole Antenna. Microwave and Optical Technology Letters, 2013, 55, 2955-2965.	0.9	1
120	Dynamic range and sensitivity improvement in near-infrared detectors using silicon germanium bipolar complementary metal-oxide semiconductor technology. Optical Engineering, 2013, 52, 044001.	0.5	3
121	Expanding wireless bandwidth in a power-efficient way: developing a viable mm-wave radio technology. , 2013, , .		3
122	Sensitivity of narrow- and wideband LNA performance to individual transistor model parameters. International Journal of Electronics, 2013, 100, 36-47.	0.9	1
123	Direct synthesis procedure for sub-harmonic stub band-pass and band-stop filters. Microwave and Optical Technology Letters, 2013, 55, 995-998.	0.9	0
124	DLs Visits SSCS-South Africa in October: New Pretoria-Cape Town Chapter Is the Society's First on the African Continent [Footer]. IEEE Solid-State Circuits Magazine, 2013, 5, 104-104.	0.5	0
125	Accreditation of academic programmes in computing in South Africa. , 2012, , .		1
126	System-level simulator of radio communication in the EHF band. , 2012, , .		0

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127	Local exploration strategies for a mobile robot in a highly dynamic environment. , 2012, , .		1
128	A 4.3GHz BiCMOS VCO with multiple 360° variable phase outputs using the vector sum method. Analog Integrated Circuits and Signal Processing, 2012, 72, 375-381.	0.9	1
129	IEEE-Based Implementation of Engineering Projects in Community Service. , 2011, , .		5
130	The wireless bandwidth crisis and the need for power-efficient bandwidth. , 2011, , .		7
131	Hybrid Renewable Energy Used to Power Computer Laboratory: A Project by University of Cape Town IEEE Student Branch. , 2011, , .		1
132	Reducing data dependent jitter utilising adaptive FIR pre-emphasis in 0.18 µm CMOS. Microelectronics Journal, 2011, 42, 1216-1224.	1.1	1
133	Wideband low-noise amplifier design using the LC-ladder and capacitive shunt-shunt feedback topology. Microwave and Optical Technology Letters, 2011, 53, 2922-2931.	0.9	2
134	Switch-mode power amplifier design method. Microwave and Optical Technology Letters, 2011, 53, 2724-2728.	0.9	3
135	The design of a 5 GHz VCO with phase noise performance analysis using MOSFET-based current sources. , 2011, , .		0
136	Pixel circuit optimization for imaging applications using integrated circuit technologies. , 2011, , .		1
137	Modeling of antenna on package for the 60 GHz frequency band applications. , 2010, , .		1
138	Phase noise analysis of a tail-current shaping technique employed on a BiCMOS voltage controlled oscillator. , 2010, , .		2
139	Mathematical Modelling of the LC-Ladder and Capacitive Shunt-Shunt Feedback LNA Topology. SAIEE Africa Research Journal, 2009, 100, 72-78.	1.1	3
140	Design flow for CMOS based Class-E and Class-F power amplifiers. , 2009, , .		3
141	An intelligent web-based voice chat bot. , 2009, , .		33
142	A low switching time transmitter for high speed adaptive pre-emphasis serial links. , 2009, , .		0
143	Analysis of adaptive FIR filter pre-emphasis for high speed serial links. , 2009, , .		3
144	Noise optimization of a wideband capacitive shunt-shunt feedback LNA design suitable for software-defined radio. , 2009, , .		3

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145	Analysis of a low noise amplifier with LC-ladder matching and capacitive shunt-shunt feedback. , 2009, , .		5
146	Design flow for a SiGe BiCMOS based power amplifier. , 2009, , .		1
147	Limitations of a LC-ladder and capacitive feedback LNA and scaling to mm-wave frequencies. , 2009, , .		0
148	A 5 GHz BiCMOS I/Q VCO with 360° variable phase outputs using the vector sum method. , 2008, , .		0
149	A 0.35 μ m CMOS GPS receiver. , 2008, , .		0
150	Analogue CMOS DSSS CDLL synchronisation scheme employing complex spreading sequences. , 2008, , .		0
151	A LabVIEW courseware customized for pre-college learners. , 2007, , .		4
152	Radio frequency identification (RFID) based conference registration system. , 2007, , .		0
153	CMOS based decision directed costas carrier recovery loop (DDC-CRL) for a DSSS communication system. , 2007, , .		0
154	A pipeline analogue to digital converter in 0.35 μ m CMOS. , 2007, , .		1
155	Design methodology for a CMOS based power amplifier deploying a passive inductor. , 2007, , .		2
156	A hardware implementation of an adaptive channel coding system. , 2007, , .		2
157	CMOS ECG, EEG and EMG Waveform Bio-Simulator. , 2006, , .		2