# Siddhartha Sen

List of Publications by Year
in descending order



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|---|---|---|---|
| 95 papers | 1,480 citations | 331259 21 h-index | 377514 34 g-index |
| 96 all docs | 96 docs citations | 96 times ranked | 979 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Experimental studies on realization of fractional inductors and fractionalâ€order bandpass filters. International Journal of Circuit Theory and Applications, 2015, 43, 1183-1196. | 1.3 | 147 |
| 2 | Practical Realization of Tunable Fractional Order Parallel Resonator and Fractional Order Filters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 1142-1151. | 3.5 | 110 |
| 3 | A Design Example of a Fractional-Order Kerwinâ€“Huelsmanâ€“Newcomb Biquad Filter with Two Fractional Capacitors of Different Order. Circuits, Systems, and Signal Processing, 2013, 32, 1523-1536. | 1.2 | 73 |
| 4 | Stability bounds of singularity perturbed systems. IEEE Transactions on Automatic Control, 1993, 38, 302-304. | 3.6 | 65 |
| 5 | Optimal Design for Realizing a Grounded Fractional Order Inductor Using GIC. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 2411-2421. | 3.5 | 59 |
| 6 | A constant phase element sensor for monitoring microbial growth. Sensors and Actuators B: Chemical, 2006, 119, 186-191. | 4.0 | 55 |
| 7 | Design and performance study of phaseâ€locked loop using fractionalâ€order loop filter. International Journal of Circuit Theory and Applications, 2015, 43, 776-792. | 1.3 | 53 |
| 8 | Free final time fractional optimal control problems. Journal of the Franklin Institute, 2014, 351, 941-951. | 1.9 | 42 |
| 9 | Realization of a carbon nanotube based electrochemical fractor. , 2015, , . | | 42 |
| 10 | Modeling of a capacitive probe in a polarizable medium. Sensors and Actuators A: Physical, 2005, 120, 115-122. | 2.0 | 35 |
| 11 | Robust and fault tolerant controller for attitude control of a satellite launch vehicle. IET Control Theory and Applications, 2007, 1, 304-312. | 1.2 | 34 |
| 12 | Dynamic Control Allocation for Tracking Time-Varying Control Demand. Journal of Guidance, Control, and Dynamics, 2008, 31, 1150-1157. | 1.6 | 33 |
| 13 | Design of static <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si43.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mi>âˆž</mml:mi></mml:mrow><mml:m loop shaping controller in four-block framework using LMI approach. Automatica, 2008, 44, 2214-2220. | 3.0 | 31 |
| 14 | CTLA-4 Blockade Plus Adoptive T-Cell Transfer Promotes Optimal Melanoma Immunity in Mice. Journal of Immunotherapy, 2015, 38, 54-61. | 1.2 | 31 |
| 15 | Design and Hardware Realization of a Tunable Fractional-Order Series Resonator with High Quality Factor. Circuits, Systems, and Signal Processing, 2017, 36, 3457-3476. | 1.2 | 30 |
| 16 | Design of an SOI-MEMS high resolution capacitive type single axis accelerometer. Microsystem Technologies, 2010, 16, 2057-2066. | 1.2 | 29 |
| 17 | Fractional Optimal Control Problems With Specified Final Time. Journal of Computational and Nonlinear Dynamics, 2011, 6, . | 0.7 | 27 |
| 18 | A Differential Output Interfacing ASIC for Integrated Capacitive Sensors. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 196-203. | 2.4 | 26 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Tunable Square-Wave Generator for Integrated Sensor Applications. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 3369-3375. | 2.4 | 22 |
| 20 | Linearity improvement of source degenerated transconductance amplifiers. Analog Integrated Circuits and Signal Processing, 2013, 74, 399-407. | 0.9 | 22 |
| 21 | Control allocation for an over-actuated Satellite Launch Vehicle. Aerospace Science and Technology, 2013, 28, 56-71. | 2.5 | 22 |
| 22 | Reconfigurable Direct Allocation for Multiple Actuator Failures. IEEE Transactions on Control Systems Technology, 2015, 23, 397-405. | 3.2 | 22 |
| 23 | MEMS Capacitive Accelerometers. Sensor Letters, 2007, 5, 471-484. | 0.4 | 22 |
| 24 | Systematic Development of Integrated Capacitance Measurement System With Sensitivity Tuning. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2738-2746. | 2.4 | 19 |
| 25 | Absolute stability analysis for negative-imaginary systems. Automatica, 2016, 67, 107-113. | 3.0 | 19 |
| 26 | A highly linear CMOS transconductance amplifier in 180Ânm process technology. Analog Integrated Circuits and Signal Processing, 2012, 72, 163-171. | 0.9 | 15 |
| 27 | Modelling and performance improvement of phase-angle-based conductivity sensor. , 2016, , . | | 15 |
| 28 | Effect of Initialization on a Class of Fractional Order Systems: Experimental Verification and Dependence on Nature of Past History and System Parameters. Circuits, Systems, and Signal Processing, 2013, 32, 1501-1522. | 1.2 | 14 |
| 29 | Enhanced local and systemic anti-melanoma CD8+ T cell responses after memory T cell-based adoptive immunotherapy in mice. Cancer Immunology, Immunotherapy, 2016, 65, 601-611. | 2.0 | 13 |
| 30 | Design and performance evaluation of two novel linearisation circuits for giant magnetoâ€resistance based sensors. IET Circuits, Devices and Systems, 2017, 11, 496-503. | 0.9 | 13 |
| 31 | Simple linearising frontâ€endâ€circuit for giant magnetoâ€resistance sensors. Electronics Letters, 2018, 54, 81-83. | 0.5 | 13 |
| 32 | Integral Control of Stable Negative-Imaginary Systems Preceded by Hysteresis Nonlinearity. IEEE Transactions on Automatic Control, 2020, 65, 1333-1339. | 3.6 | 13 |
| 33 | Disturbance Rejection and Control Allocation of Over-Actuated systems H. , 2006, , . | | 12 |
| 34 | Numerical Method for Solving Fractional Optimal Control Problems. , 2009, , . | | 12 |
| 35 | Realization and study of a fractional order resonator using an obtuse angle fractor. , 2016, , . | | 12 |
| 36 | Impedance Behaviour of a Microporous PMMA-Film â€˜Coated Constant Phase Elementâ€™ based Chemical Sensor. International Journal on Smart Sensing and Intelligent Systems, 2008, 1, 922-939. | 0.4 | 12 |

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|---|---|---|---|
| 37 | PC-based gas-solids two-phase mass flowmeter for pneumatically conveying systems. Flow Measurement and Instrumentation, 2000, 11, 205-212. | 1.0 | 10 |
| 38 | An object-based coding scheme for frontal surface of defective fluted ingot. ISA Transactions, 2006, 45, 1-8. | 3.1 | 10 |
| 39 | Co-transfer of tumor-specific effector and memory CD8+ T cells enhances the efficacy of adoptive melanoma immunotherapy in a mouse model. , 2018, 6, 41. | | 10 |
| 40 | New control allocation algorithms in fixed point framework for overactuated systems with actuator saturation. International Journal of Control, 2017, 90, 348-356. | 1.2 | 9 |
| 41 | A Novel Design for Enhancing the Sensitivity of a Capacitive MEMS Device. Journal of Microelectromechanical Systems, 2018, 27, 656-666. | 1.7 | 9 |
| 42 | Fractional calculus in electronic circuits: a review. , 2022, , 441-482. | | 9 |
| 43 | Stability analysis and controller design for Lur'e system with hysteresis nonlinearities: aÂnegative-imaginary theory based approach. International Journal of Control, 2019, 92, 1903-1913. | 1.2 | 8 |
| 44 | Finite-difference resistance modelling for liquid level measurement in stratified gas-liquid systems. Measurement Science and Technology, 1994, 5, 574-579. | 1.4 | 7 |
| 45 | Fractional Optimal Control Within Caputoâ€™s Derivative. , 2011, , . | | 7 |
| 46 | Testing of MEMS capacitive accelerometer structure through electro-static actuation. Microsystem Technologies, 2013, 19, 79-87. | 1.2 | 7 |
| 47 | A new analysis of reciprocated beam bending in electrostatic comb drives using a semi-analytical approach. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 2115-2130. | 1.7 | 7 |
| 48 | Dynamic characteristics of voltage induced reciprocated bending in double cantilever configuration of asymmetric comb drive MEMS. Microsystem Technologies, 2016, 22, 1089-1103. | 1.2 | 7 |
| 49 | Generalized closed form approximations for pull-in characteristics of fixed-fixed nano beam under the influences of van der Waals and Casimir forces. Microelectronics Reliability, 2019, 94, 32-40. | 0.9 | 7 |
| 50 | An improved method for determining the stability of interval matrices. International Journal of Systems Science, 2000, 31, 171-176. | 3.7 | 6 |
| 51 | An experimental analysis of electrostatically vibrated array of polysilicon cantilevers. Microsystem Technologies, 2010, 16, 2131-2145. | 1.2 | 6 |
| 52 | Effect of voltage induced electrostatic forces on MEMS capacitive accelerometer. , 2011, , . | | 6 |
| 53 | Study and analysis of two GMR-based eddy-current probes for defect-detection. , 2017, , . | | 6 |
| 54 | Generalized closed form solutions for feasible dimension limit and pull-in characteristics of nanocantilever under the Influences of van der Waals and Casimir forces. Materials Research Express, 2018, 5, 045028. | 0.8 | 6 |

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| 55 | Analysis of static charge induced pull-in of an electrostatic MEMS. Communications in Nonlinear Science and Numerical Simulation, 2021, 96, 105690. | 1.7 | 6 |
| 56 | Pre-compensator selection for H â^ž loop shaping control. International Journal of Control, Automation and Systems, 2010, 8, 45-51. | 1.6 | 5 |
| 57 | A linear matrix inequality approach to parametric Hâ^ž loop shaping control. Journal of the Franklin Institute, 2011, 348, 1832-1846. | 1.9 | 5 |
| 58 | Local stabilisation of uncertain linear time-invariant plant with bounded control inputs: parametric Hâ^ž loop-shaping approach. IET Control Theory and Applications, 2012, 6, 1567. | 1.2 | 5 |
| 59 | A simple low cost scheme for closed loop operation of MEMS capacitive accelerometer. , 2014, , . | | 5 |
| 60 | Introducing Fractional-Order Dynamics to Sigmaâ€“Delta Modulators. Circuits, Systems, and Signal Processing, 2016, 35, 2109-2124. | 1.2 | 5 |
| 61 | Performance evaluation of perforated micro-cantilevers for MEMS applications. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2014, 13, 1. | 1.0 | 4 |
| 62 | A New Analysis on Reduction of Undesired Beam Bending in Electrostatic Comb Drive MEMS Actuator. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 488-500. | 2.4 | 4 |
| 63 | Optimal design of a fractional order immittance in the second quadrant with wide CPZ. AEU - International Journal of Electronics and Communications, 2021, 130, 153567. | 1.7 | 4 |
| 64 | Linearized Sigmaâ€“Delta-Based Direct Digital Converter for GMR Sensors. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10. | 2.4 | 4 |
| 65 | Singular perturbation method for the transient analysis of a transformer. Electric Power Systems Research, 1982, 5, 307-313. | 2.1 | 3 |
| 66 | Time-optimal control algorithm for two-time-scale discrete system. International Journal of Control, 1988, 47, 1595-1602. | 1.2 | 3 |
| 67 | Fault tolerant controller for attitude control of satellite launch vehicle via LMI approach. , 0, , . | | 3 |
| 68 | On-Chip Implementation of Analog Linearization Schemes for Giant-Magnetoresistance Sensors. , 2018, , . | | 3 |
| 69 | Image-based classification of defects in frontal surface of fluted ingot. Measurement: Journal of the International Measurement Confederation, 2007, 40, 687-698. | 2.5 | 2 |
| 70 | Robust control of uncertain LTI plant with input saturation constraint: H <sub>â^ž</sub> loop-shaping approach. International Journal of Systems Science, 2010, 41, 1337-1351. | 3.7 | 2 |
| 71 | A new approach for sensitivity improvement of MEMS capacitive accelerometer using electrostatic actuation. , 2012, , . | | 2 |
| 72 | A reconfigurable Direct Control Allocation method. , 2013, , . | | 2 |

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| 73 | Generalized closed form approximations for pull-in characteristics of electrostatic nanotweezers under the influences of van der waals and casimir forces. , 2015, , . | | 2 |
| 74 | Tracking control for systems with slopeâ€restricted hysteresis nonlinearities. International Journal of Robust and Nonlinear Control, 2018, 28, 6038-6052. | 2.1 | 2 |
| 75 | A novel shape-based coding-decoding technique for an industrial visual inspection system. ISA Transactions, 2004, 43, 3-12. | 3.1 | 1 |
| 76 | Disturbance Observer Based Performance Improvement of H<inf>∞</inf> Controller. , 2008, , . | | 1 |
| 77 | Development and Application of Wire Mesh Tomography for Gas-Liquid Systems. AIP Conference Proceedings, 2008, , . | 0.3 | 1 |
| 78 | Design methodology of closed loop MEMS capacitive accelerometers based on Î£Î” modulation technique. , 2016, , . | | 1 |
| 79 | A Control Theoretic Approach for Solving Underdetermined Problems and Its Application to Control Allocation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2016, 138, . | 0.9 | 1 |
| 80 | Efficacy Studies of a Novel Field Feedback Circuit for Giant Magnetoresistance Sensors. , 2018, , . | | 1 |
| 81 | A structure preserving model order reduction method for calcium homeostatic system. Mathematical Biosciences, 2019, 312, 8-22. | 0.9 | 1 |
| 82 | A Versatile Direct-Digital Interface for Resistive Sensors Using Sigma-Delta Approach. , 2021, , . | | 1 |
| 83 | On-chip implementation of different analog linearization schemes for giant-magnetoresistance sensors with a comparative study. AEU - International Journal of Electronics and Communications, 2021, 139, 153903. | 1.7 | 1 |
| 84 | Design of SOI MEMS-based Bennetâ€™s doubler kinetic energy harvester. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2020, 19, 1. | 1.0 | 1 |
| 85 | Study on dynamic actuation in double microcantilever-based electrostatic microactuators with an in-house experimental set-up. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2018, 17, 1. | 1.0 | 1 |
| 86 | Singular perturbation analysis of discrete cheap control problems. International Journal of Systems Science, 1992, 23, 57-70. | 3.7 | 0 |
| 87 | Analysis of Linear Systems with Input Saturation and Model Uncertainty: An LMI Approach. , 2006, , . | | 0 |
| 88 | An RF based centrifuge calibrator for MEMS accelerometer testing. , 2010, , . | | 0 |
| 89 | SOI MEMS Based Over-Sampling Accelerometer Design with Î”Î£ Output. Lecture Notes in Computer Science, 2012, , 121-128. | 1.0 | 0 |
| 90 | Disturbance attenuation problem for overactuated systems with actuator saturation: A control allocation based approach. , 2015, , . | | 0 |

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|---|---|---|---|
| 91 | Design, integration and performance analysis of Î£Î” ADC for capacitive sensor interfacing. , 2016, , . | | 0 |
| 92 | Analysis of Tilt-Able Inertial Mass with Asymmetric Springs for Inter-Digitated Electrodes. , 2018, , . | | 0 |
| 93 | A Closed-loop CMOS Interface for Â±1g MEMS Capacitive Accelerometer. , 2018, , . | | 0 |
| 94 | Effect of past History on Transient Response of a Closed Loop System with Fractional PI Controller. , 2018, , . | | 0 |
| 95 | A Semi-Analytical Method for Modelling of EC Probes for Detection of Thin Defects in Metals. , 2021, , . | | 0 |