# Alex S Weddell

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 72 papers | 1,654 citations | 361296 20 h-index | 345118 36 g-index |

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|---|---|---|---|
| 77 all docs | 77 docs citations | 77 times ranked | 1095 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Pragmatic Memory-System Support for Intermittent Computing Using Emerging Nonvolatile Memory. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2023, 42, 95-108. | 1.9 | 5 |
| 2 | Exploring the Effect of Energy Storage Sizing on Intermittent Computing System Performance. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 492-501. | 1.9 | 2 |
| 3 | Millimeter-Wave Power Transmission for Compact and Large-Area Wearable IoT Devices Based on a Higher Order Mode Wearable Antenna. IEEE Internet of Things Journal, 2022, 9, 5229-5239. | 5.5 | 15 |
| 4 | 5G-Enabled E-Textiles Based on a Low-Profile Millimeter-Wave Textile Antenna. , 2022, 15, . | | 0 |
| 5 | Broadband Compact Substrate-Independent Textile Wearable Antenna for Simultaneous Near- and Far-Field Wireless Power Transmission. IEEE Open Journal of Antennas and Propagation, 2022, 3, 398-411. | 2.5 | 13 |
| 6 | E-Textile Breathing Sensor Using Fully Textile Wearable Antennas. , 2022, 15, . | | 5 |
| 7 | Printed Non-Metallic Textile-Based Carbon Antenna for Low-Cost Green Wearable Applications. , 2022, , . | | 4 |
| 8 | Meshed Microstrip Printed Antenna for Matching Network-Free RF Energy Harvesting. , 2022, , . | | 0 |
| 9 | Battery-Free Wireless Light-Sensing Tag Based on a Long-Range Dual-Port Dual-Polarized RFID Platform. Sensors, 2022, 22, 4782. | 2.1 | 3 |
| 10 | Improving the Forward Progress of Transient Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 444-452. | 1.9 | 4 |
| 11 | Omnidirectional Dual-Polarized Low-Profile Textile Rectenna With Over 50% Efficiency for Sub-Î¼W/cm<sup>2</sup> Wearable Power Harvesting. IEEE Transactions on Antennas and Propagation, 2021, 69, 2522-2536. | 3.1 | 45 |
| 12 | E-Textile Technology Reviewâ€“From Materials to Application. IEEE Access, 2021, 9, 97152-97179. | 2.6 | 40 |
| 13 | Powering E-Textiles Using a Single Thread Radio Frequency Energy Harvesting Rectenna. Proceedings (mdpi), 2021, 68, 16. | 0.2 | 1 |
| 14 | Dual-Polarized Wearable Antenna/Rectenna for Full-Duplex and MIMO Simultaneous Wireless Information and Power Transfer (SWIPT). IEEE Open Journal of Antennas and Propagation, 2021, 2, 844-857. | 2.5 | 29 |
| 15 | Analyzing and Maximizing the Power Harvesting Efficiency of a Textile Rectenna Through Reflector-Based Shielding. , 2021, , . | | 1 |
| 16 | 2.4 GHz Wearable Textile Antenna/Rectenna for Simultaneous Information and Power Transfer. , 2021, , . | | 5 |
| 17 | Dispenser Printed Flexible Rectenna for Dual-ISM Band High-Efficiency Supercapacitor Charging. , 2021, , . | | 4 |
| 18 | Dual-Band Dual-Mode Textile Antenna/Rectenna for Simultaneous Wireless Information and Power Transfer (SWIPT). IEEE Transactions on Antennas and Propagation, 2021, 69, 6322-6332. | 3.1 | 52 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | RF-Powered Wearable Energy Harvesting and Storage Module Based on E-Textile Coplanar Waveguide Rectenna and Supercapacitor. IEEE Open Journal of Antennas and Propagation, 2021, 2, 302-314. | 2.5 | 37 |
| 20 | Millimeter-Wave Textile-Based Monopole Antenna for Wearable Wireless Power Transmission. , 2021, , . | | 2 |
| 21 | CMOS UHF RFID Rectifier Design and Matching: an Analysis of Process and Temperature Variations. , 2021, , . | | 3 |
| 22 | E-Textile RF Energy Harvesting and Storage using Organic-Electrolyte Carbon-Based Supercapacitors. , 2021, , . | | 0 |
| 23 | Screen Printing Reliable Wearable Microstrip Antennas on Rough Textile Substrates. , 2021, , . | | 1 |
| 24 | Textile-based Radio Frequency Energy Harvesting and Storage using Ultra-Compact Rectennas with High Effective-to-Physical Area Ratio. , 2021, , . | | 1 |
| 25 | Energy-driven computing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190158. | 1.6 | 18 |
| 26 | Millimeter-Wave Power Harvesting: A Review. IEEE Open Journal of Antennas and Propagation, 2020, 1, 560-578. | 2.5 | 43 |
| 27 | A Control Flow for Transiently Powered Energy Harvesting Sensor Systems. IEEE Sensors Journal, 2020, 20, 10687-10695. | 2.4 | 14 |
| 28 | Real-World Performance of Sub-1 GHz and 2.4 GHz Textile Antennas for RF-Powered Body Area Networks. IEEE Access, 2020, 8, 133746-133756. | 2.6 | 21 |
| 29 | High-Efficiency Sub-1 GHz Flexible Compact Rectenna based on Parametric Antenna-Rectifier Co-Design. , 2020, , . | | 16 |
| 30 | Rectennas for Radio-Frequency Energy Harvesting and Wireless Power Transfer: A Review of Antenna Design [Antenna Applications Corner]. IEEE Antennas and Propagation Magazine, 2020, 62, 95-107. | 1.2 | 68 |
| 31 | Broadband Millimeter-Wave Textile-Based Flexible Rectenna for Wearable Energy Harvesting. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 4960-4972. | 2.9 | 74 |
| 32 | Sub-1 GHz Flexible Concealed Rectenna Yarn for High-Efficiency Wireless-Powered Electronic Textiles. , 2020, , . | | 7 |
| 33 | Efficient Energy Conversion in Electrically Assisted Bicycles Using a Switched Reluctance Machine Under Torque Control. IEEE Access, 2020, 8, 202401-202411. | 2.6 | 8 |
| 34 | Meshed High-Impedance Matching Network-Free Rectenna Optimized for Additive Manufacturing. IEEE Open Journal of Antennas and Propagation, 2020, 1, 615-626. | 2.5 | 28 |
| 35 | High-Temperature Self-Powered Sensing System for a Smart Bearing in an Aircraft Jet Engine. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6165-6174. | 2.4 | 25 |
| 36 | Fused: Closed-Loop Performance and Energy Simulation of Embedded Systems. , 2020, , . | | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Wearable E-Textile Wireless RF Power Supply based on a Textile Supercapacitor and a Flexible Rectenna Filament. , 2020, , . | | 4 |
| 38 | Energy-aware HW/SW Co-modeling of Batteryless Wireless Sensor Nodes. , 2020, , . | | 3 |
| 39 | Design and Testing of a Sensing System for Aero-Engine Smart Bearings. Proceedings (mdpi), 2019, 2, . | 0.2 | 4 |
| 40 | A Sub-nW/kHz Relaxation Oscillator With Ratioed Reference and Sub-Clock Power Gated Comparator. IEEE Journal of Solid-State Circuits, 2019, 54, 3097-3106. | 3.5 | 20 |
| 41 | Efficient State Retention through Paged Memory Management for Reactive Transient Computing. , 2019, , . | | 8 |
| 42 | Overcoming the Efficiency Barrier of Textile Antennas: A Transmission Lines Approach. Proceedings (mdpi), 2019, 32, . | 0.2 | 5 |
| 43 | Millimeter-Wave Textile Antenna for on-Body RF Energy Harvesting in Future 5G Networks. , 2019, , . | | 35 |
| 44 | Ultra-Low Power 18-Transistor Fully Static Contention-Free Single-Phase Clocked Flip-Flop in 65-nm CMOS. IEEE Journal of Solid-State Circuits, 2019, 54, 550-559. | 3.5 | 46 |
| 45 | Enabling intermittent computing on high-performance out-of-order processors. , 2018, , . | | 4 |
| 46 | Oil-cooled thermoelectric energy harvesting for aero-engine sensing system. Proceedings (mdpi), 2018, 2, . | 0.2 | 1 |
| 47 | RESTOP: Retaining External Peripheral State in Intermittently-Powered Sensor Systems. Sensors, 2018, 18, 172. | 2.1 | 23 |
| 48 | Energy Harvesting for Smart City Applications. , 2018, , . | | 20 |
| 49 | Momentum. Transactions on Embedded Computing Systems, 2018, 17, 1-25. | 2.1 | 11 |
| 50 | Intermittently-powered energy harvesting step counter for fitness tracking. , 2017, , . | | 10 |
| 51 | DiStiNCT: Synchronizing Nodes With Imprecise Timers in Distributed Wireless Sensor Networks. IEEE Transactions on Industrial Informatics, 2017, 13, 938-946. | 7.2 | 16 |
| 52 | Integrated Reciprocal Conversion With Selective Direct Operation for Energy Harvesting Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2017, 64, 2370-2379. | 3.5 | 6 |
| 53 | Evaluation and analysis of single-phase clock flip-flops for NTV applications. , 2017, , . | | 3 |
| 54 | Using Sleep States to Maximize the Active Time of Transient Computing Systems. , 2017, , . | | 12 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Hibernus++: A Self-Calibrating and Adaptive System for Transiently-Powered Embedded Devices. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1968-1980. | 1.9 | 156 |
| 56 | Enhancing microelectronics education with large-student projects: Using the example of the University of Southampton Small Satellite. , 2016, , . | | 1 |
| 57 | Graceful Performance Modulation for Power-Neutral Transient Computing Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 738-749. | 1.9 | 55 |
| 58 | A traffic-aware street lighting scheme for Smart Cities using autonomous networked sensors. Computers and Electrical Engineering, 2015, 45, 192-207. | 3.0 | 78 |
| 59 | Hibernus: Sustaining Computation During Intermittent Supply for Energy-Harvesting Systems. IEEE Embedded Systems Letters, 2015, 7, 15-18. | 1.3 | 191 |
| 60 | StreetlightSim: A simulation environment to evaluate networked and adaptive street lighting. , 2014, , . | | 9 |
| 61 | A Survy of Multi-Source Energy Harvesting Systems. , 2013, , . | | 53 |
| 62 | Modeling of Wireless Sensor Nodes Powered by Tunable Energy Harvesters: HDL-Based Approach. IEEE Sensors Journal, 2012, 12, 2680-2689. | 2.4 | 7 |
| 63 | Supercapacitor leakage in energy-harvesting sensor nodes: Fact or fiction?. , 2012, , . | | 21 |
| 64 | Photovoltaic Sample-and-Hold Circuit Enabling MPPT Indoors for Low-Power Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 1196-1204. | 3.5 | 49 |
| 65 | Accurate Supercapacitor Modeling for Energy Harvesting Wireless Sensor Nodes. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 911-915. | 2.2 | 105 |
| 66 | Accelerated simulation of tunable vibration energy harvesting systems using a linearised state-space technique. , 2011, , . | | 6 |
| 67 | Ultra low-power photovoltaic MPPT technique for indoor and outdoor wireless sensor nodes. , 2011, , . | | 12 |
| 68 | Energy devices for sensor networks: Properties for simulation and deployment. , 2009, , . | | 6 |
| 69 | An Empirical Energy Model for Supercapacitor Powered Wireless Sensor Nodes. , 2008, , . | | 39 |
| 70 | Flexible integration of alternative energy sources for autonomous sensing. , 2008, , . | | 0 |
| 71 | Energy Harvesting and Management for Wireless Autonomous Sensors. Measurement and Control, 2008, 41, 104-108. | 0.9 | 10 |
| 72 | Alternative Energy Sources for Sensor Nodes: Rationalized Design for Long-Term Deployment. , 2008, , . | | 18 |