

# Jorge Alfredo Ardila-Rey

## List of Publications by Year in descending order

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78  
papers

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citations

394421

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501196

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g-index

80  
all docs

80  
docs citations

80  
times ranked

771  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Baseline-Free Damage Imaging Algorithm Using Spatial Frequency Domain Virtual Time Reversal. IEEE Transactions on Industrial Informatics, 2022, 18, 5043-5054.                                  | 11.3 | 9         |
| 2  | Oscillating Water Column Geometrical Factors and System Performance: A Review. IEEE Access, 2022, 10, 32104-32122.  | 4.2  | 4         |
| 3  | A CFD Analysis for Novel Close-Ended Deflector for Vertical Water Turbines. Sustainability, 2022, 14, 2790.   | 3.2  | 1         |
| 4  | A Comparative Analysis Applied to the Partial Discharges Identification in Dry-Type Transformers by Hall and Acoustic Emission Sensors. Sensors, 2022, 22, 1716.                                | 3.8  | 6         |
| 5  | A Study of Zero Bid Wind Farm for Future Scotland's Energy Demands – A New Approach. Applied Sciences (Switzerland), 2022, 12, 3326.  | 2.5  | 0         |
| 6  | Current Status and Possible Future Applications of Marine Current Energy Devices in Malaysia: A Review. IEEE Access, 2021, 9, 86869-86888.  | 4.2  | 14        |
| 7  | A new technique for separation of partial discharge sources and electromagnetic noise in radiofrequency measurements using energy ratios of different antennas. High Voltage, 2021, 6, 525-530. | 4.7  | 7         |
| 8  | A New Acoustic-Based Approach for Assessing Induced Adulteration in Bovine Milk. Sensors, 2021, 21, 2101.   | 3.8  | 3         |
| 9  | Mathematical Modelling of a Static Concentrating Photovoltaic: Simulation and Experimental Validation. Applied Sciences (Switzerland), 2021, 11, 3894.  | 2.5  | 1         |
| 10 | Application of the Gaussian Mixture Model to Classify Stages of Electrical Tree Growth in Epoxy Resin. Sensors, 2021, 21, 2562.   | 3.8  | 4         |
| 11 | Application and Suitability of Polymeric Materials as Insulators in Electrical Equipment. Energies, 2021, 14, 2758.   | 3.1  | 23        |
| 12 | Lightning Activity Over Chilean Territory. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034580.  | 3.3  | 2         |
| 13 | Partial Discharge Detection of Transformer Bushing Based on Acoustic Emission and Current Analysis. , 2021, , .   |      | 3         |
| 14 | Development and Implementation of an Anthropomorphic Underactuated Prosthesis with Adaptive Grip. Machines, 2021, 9, 209.   | 2.2  | 5         |
| 15 | Determinant Factors of Electricity Consumption for a Malaysian Household Based on a Field Survey. Sustainability, 2021, 13, 818.  | 3.2  | 22        |
| 16 | Partial Discharge Electrical Tree Growth Identification by Means of Waveform Source Separation Techniques. IEEE Access, 2021, 9, 64665-64675.   | 4.2  | 6         |
| 17 | Development of Hypergraph Based Improved Random Forest Algorithm for Partial Discharge Pattern Classification. IEEE Access, 2021, 9, 96-109.  | 4.2  | 11        |
| 18 | Separation of Partial Discharges Sources and Noise Based on the Temporal and Spectral Response of the Signals. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-13.            | 4.7  | 9         |

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|----|--|-----|-----------|
| 19 | Partial Discharge Location Identification Using Permutation Entropy Based Instantaneous Energy Features. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.                     | 4.7 | 8         |
| 20 | Static concentrating photovoltaic modelling using MATLAB. Journal of Physics: Conference Series, 2021, 2053, 012003.   | 0.4 | 0         |
| 21 | Development of an Electrical Energy Consumption Model for Malaysian Households, Based on Techno-Socioeconomic Determinant Factors. Sustainability, 2021, 13, 13258.                                | 3.2 | 2         |
| 22 | Embodied Energy and Cost Assessments of a Concentrating Photovoltaic Module. Sustainability, 2021, 13, 13916.  | 3.2 | 1         |
| 23 | Partial discharges in electrical trees grown at 0.1 (VLF) and 50 Hz analyzed using PRPD and NLTA. , 2021, , .  |     | 0         |
| 24 | Analysis of Partial Discharges in Electrical Tree Growth Under Very Low Frequency (VLF) Excitation Through Pulse Sequence and Nonlinear Time Series Analysis. IEEE Access, 2020, 8, 163673-163684. | 4.2 | 9         |
| 25 | Separation Techniques of Partial Discharges and Electrical Noise Sources: A Review of Recent Progress. IEEE Access, 2020, 8, 199449-199461.  | 4.2 | 21        |
| 26 | A Method for Weather Station Selection Based on Wavelet Squared Coherence for Electric Load Forecasting. IEEE Access, 2020, 8, 197431-197438.  | 4.2 | 5         |
| 27 | Inference of X-Ray Emission From a Plasma Focus Discharge: Comparison Between Characteristic Parameters and Neural Network Analyses. IEEE Access, 2020, 8, 79273-79286.                            | 4.2 | 4         |
| 28 | Assessment of the RACPC Performance under Diffuse Radiation for Use in BIPV System. Applied Sciences (Switzerland), 2020, 10, 3552.  | 2.5 | 2         |
| 29 | Effects of Roadside Trees and Road Orientation on Thermal Environment in a Tropical City. Sustainability, 2020, 12, 1053.  | 3.2 | 29        |
| 30 | Life Cycle Assessment of a Rotationally Asymmetrical Compound Parabolic Concentrator (RACPC). Sustainability, 2020, 12, 4750.  | 3.2 | 4         |
| 31 | Renewable Energy Performance of the Green Buildings: Key-Enabler on Useful Consumption Yield. IEEE Access, 2020, 8, 95747-95767.   | 4.2 | 1         |
| 32 | Artificial Generation of Partial Discharge Sources Through an Algorithm Based on Deep Convolutional Generative Adversarial Networks. IEEE Access, 2020, 8, 24561-24575.                            | 4.2 | 18        |
| 33 | Effects of Urban Morphology on Microclimate Parameters in an Urban University Campus. Sustainability, 2020, 12, 2962.  | 3.2 | 21        |
| 34 | Lightning Protection Methods for Wind Turbine Blades: An Alternative Approach. Applied Sciences (Switzerland), 2020, 10, 2130.   | 2.5 | 5         |
| 35 | Paving towards Strategic Investment Decision: A SWOT Analysis of Renewable Energy in Bangladesh. Sustainability, 2020, 12, 10674.  | 3.2 | 4         |
| 36 | On the Use of UHF Sensors in the Detection and Characterization of Pulsed Plasma Discharges. Lecture Notes in Electrical Engineering, 2020, , 1367-1376.   | 0.4 | 0         |

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|----|--|-----|-----------|
| 37 | Electrical tree growth under harmonic frequencies characterized by partial discharges waveforms. , 2020, , .   |     | 2         |
| 38 | Application of Meta-Heuristic Approaches in the Spectral Power Clustering Technique (SPCT) to Improve the Separation of Partial Discharge and Electrical Noise Sources. IEEE Access, 2019, 7, 110580-110593. | 4.2 | 4         |
| 39 | On the Relationship Between the Electromagnetic Burst and Inductive Sensor Measurement of a Pulsed Plasma Accelerator. IEEE Access, 2019, 7, 133043-133057.  | 4.2 | 5         |
| 40 | Using Static Concentrator Technology to Achieve Global Energy Goal. Sustainability, 2019, 11, 3056.  | 3.2 | 15        |
| 41 | Photovoltaic Expansion-Limit through a Net Energy Metering Scheme for Selected Malaysian Public Hospitals. Sustainability, 2019, 11, 5131.   | 3.2 | 6         |
| 42 | Hard X-Ray Emission Detection Using Deep Learning Analysis of the Radiated UHF Electromagnetic Signal From a Plasma Focus Discharge. IEEE Access, 2019, 7, 74899-74908.                                      | 4.2 | 12        |
| 43 | A chromatic technique for structural damage detection under noise effects based on impedance measurements. Measurement Science and Technology, 2019, 30, 075601.   | 2.6 | 9         |
| 44 | Analysis of Piezoelectric Sensors in Adulteration of Bovine Milk Using the Chromatic Technique. Proceedings (mdpi), 2019, 4, 38.   | 0.2 | 2         |
| 45 | 3D characterization of electrical tree structures. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 220-228.  | 2.9 | 34        |
| 46 | Performance Evaluation of Unconcentrated Photovoltaic-Thermoelectric Generator Hybrid System under Tropical Climate. Sustainability, 2019, 11, 6192.   | 3.2 | 12        |
| 47 | Thunderstorm days over Chilean territory based on WWLLN data. , 2019, , .  |     | 2         |
| 48 | Simulation of Reverse Electrical Trees using Cellular Automata. , 2019, , .  |     | 0         |
| 49 | Electrical Tree Growth Under Very Low Frequency (VLF) Voltage Excitation. , 2018, , .  |     | 3         |
| 50 | Simulating the Annual Energy Yield of a Rotationally Asymmetrical Optical Concentrator. , 2018, , .  |     | 0         |
| 51 | Behavior of an Inductive Loop Sensor in the Measurement of Partial Discharge Pulses with Variations in Its Separation from the Primary Conductor. Sensors, 2018, 18, 2324.                                   | 3.8 | 15        |
| 52 | A Cost-Effective Methodology for Sizing Solar PV Systems for Existing Irrigation Facilities in Chile. Energies, 2018, 11, 1853.  | 3.1 | 20        |
| 53 | Annual Prediction Output of an RADTIRC-PV Module. Energies, 2018, 11, 544.   | 3.1 | 2         |
| 54 | Partial Discharge Spectral Characterization in HF, VHF and UHF Bands Using Particle Swarm Optimization. Sensors, 2018, 18, 746.  | 3.8 | 21        |

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|----|---|-----|-----------|
| 55 | Robust Condition Assessment of Electrical Equipment with One Class Support Vector Machines Based on the Measurement of Partial Discharges. <i>Energies</i> , 2018, 11, 486.                               | 3.1 | 13        |
| 56 | Nuclear Energy Development in Bangladesh: A Study of Opportunities and Challenges. <i>Energies</i> , 2018, 11, 1672.  | 3.1 | 35        |
| 57 | Polymeric Materials for Conversion of Electromagnetic Waves from the Sun to Electric Power. <i>Polymers</i> , 2018, 10, 307.  | 4.5 | 9         |
| 58 | A Comparison of Inductive Sensors in the Characterization of Partial Discharges and Electrical Noise Using the Chromatic Technique. <i>Sensors</i> , 2018, 18, 1021.                                      | 3.8 | 29        |
| 59 | Evaluation of Low Cost Piezoelectric Sensors for the Identification of Partial Discharges Evolution. <i>Proceedings (mdpi)</i> , 2018, 4, .   | 0.2 | 4         |
| 60 | Partial discharges and noise separation using spectral power ratios and genetic algorithms. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2017, 24, 31-38.                          | 2.9 | 17        |
| 61 | An Ensemble-Boosting Algorithm for Classifying Partial Discharge Defects in Electrical Assets. <i>Machines</i> , 2017, 5, 18.   | 2.2 | 12        |
| 62 | Wind Power Potentials in Cameroon and Nigeria: Lessons from South Africa. <i>Energies</i> , 2017, 10, 443.  | 3.1 | 21        |
| 63 | Electromagnetic Burst Measurement System Based on Low Cost UHF Dipole Antenna. <i>Energies</i> , 2017, 10, 1415.  | 3.1 | 7         |
| 64 | An Evaluation of Meta-Heuristic Approaches for Improve the Separation of Multiple Partial Discharge Sources and Electrical Noise. , 2017, , .   |     | 4         |
| 65 | Comparison of the Performance of Artificial Neural Networks and Fuzzy Logic for Recognizing Different Partial Discharge Sources. <i>Energies</i> , 2017, 10, 1060.  | 3.1 | 32        |
| 66 | On the Use of Monopole Antennas for Determining the Effect of the Enclosure of a Power Transformer Tank in Partial Discharges Electromagnetic Propagation. <i>Sensors</i> , 2016, 16, 148.                | 3.8 | 42        |
| 67 | Artificial Neural Network Application for Partial Discharge Recognition: Survey and Future Directions. <i>Energies</i> , 2016, 9, 574.  | 3.1 | 54        |
| 68 | Software simulation and experimental characterisation of a rotationally asymmetrical concentrator under direct and diffuse solar radiation. <i>Energy Conversion and Management</i> , 2016, 122, 223-238. | 9.2 | 10        |
| 69 | Multiple partial discharge source discrimination with multiclass support vector machines. <i>Expert Systems With Applications</i> , 2016, 55, 417-428.  | 7.6 | 46        |
| 70 | A new monitoring and characterization system of partial discharges based on the analysis of the spectral power. <i>Ingenieria E Investigacion</i> , 2015, 35, 13-20.                                      | 0.4 | 2         |
| 71 | A Validation of the Spectral Power Clustering Technique (SPCT) by Using a Rogowski Coil in Partial Discharge Measurements. <i>Sensors</i> , 2015, 15, 25898-25918.  | 3.8 | 12        |
| 72 | Separation of sources in radiofrequency measurements of partial discharges using timeâ€“power ratio maps. <i>ISA Transactions</i> , 2015, 58, 389-397.  | 5.7 | 40        |

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|----|---|-----|-----------|
| 73 | Automatic selection of frequency bands for the power ratios separation technique in partial discharge measurements: part II, PD source recognition and applications. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2293-2301.                 | 2.9 | 16        |
| 74 | Automatic selection of frequency bands for the power ratios separation technique in partial discharge measurements: part I, fundamentals and noise rejection in simple test objects. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2284-2291. | 2.9 | 20        |
| 75 | Inductive Sensor Performance in Partial Discharges and Noise Separation by Means of Spectral Power Ratios. Sensors, 2014, 14, 3408-3427.  | 3.8 | 27        |
| 76 | Partial discharge and noise separation by means of spectral-power clustering techniques. IEEE Transactions on Dielectrics and Electrical Insulation, 2013, 20, 1436-1443.   | 2.9 | 86        |
| 77 | Partial discharge source recognition by means of clustering of spectral power ratios. Measurement Science and Technology, 2013, 24, 125605.   | 2.6 | 13        |
| 78 | An Application of Wavelet Analysis to Assess Partial Discharge Evolution by Acoustic Emission Sensor.<br>, O, , .   |     | 5         |