# Carlos Castro

## List of Publications by Citations



| 68 | 718 | 14 | 24 |
|---|---|---|---|
| papers | citations | h-index | g-index |
| 80 | 902 | 3.9 | 4.32 |
| ext. papers | ext. citations | avg, IF | L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 68 | A critical evaluation of step size optimization based load flow methods. *IEEE Transactions on Power Systems*, **2000**, 15, 202-207 | 7 | 77 |
| 67 | Distribution systems operation optimisation through reconfiguration and capacitor allocation by a dedicated genetic algorithm. *IET Generation, Transmission and Distribution*, **2010**, 4, 1213 | 2.5 | 64 |
| 66 | Microgrids Energy Management Using Robust Convex Programming. *IEEE Transactions on Smart Grid*, **2019**, 10, 4520-4530 | 10.7 | 56 |
| 65 | Genetic algorithm-based phasor measurement unit placement method considering observability and security criteria. *IET Generation, Transmission and Distribution*, **2016**, 10, 270-280 | 2.5 | 50 |
| 64 | Continuation fast decoupled power flow with secant predictor. *IEEE Transactions on Power Systems*, **2003**, 18, 1078-1085 | 7 | 40 |
| 63 | Fast computation of voltage stability security margins using nonlinear programming techniques. *IEEE Transactions on Power Systems*, **2006**, 21, 19-27 | 7 | 38 |
| 62 | Expansion planning for smart transmission grids using AC model and shunt compensation. *IET Generation, Transmission and Distribution*, **2014**, 8, 966-975 | 2.5 | 35 |
| 61 | Optimal probabilistic charging of electric vehicles in distribution systems. *IET Electrical Systems in Transportation*, **2017**, 7, 246-251 | 2.1 | 31 |
| 60 | Distribution Systems Operation Considering Energy Storage Devices and Distributed Generation. *IEEE Latin America Transactions*, **2017**, 15, 890-900 | 0.7 | 27 |
| 59 | An efficient reconfiguration algorithm for loss reduction of distribution systems. *Electric Power Systems Research*, **1990**, 19, 137-144 | 3.5 | 25 |
| 58 | Power System Loading Margin Estimation Using a Neuro-Fuzzy Approach. *IEEE Transactions on Power Systems*, **2007**, 22, 1955-1964 | 7 | 17 |
| 57 | An efficient geometric parameterization technique for the continuation power flow. *Electric Power Systems Research*, **2007**, 77, 71-82 | 3.5 | 17 |
| 56 | Comparison of the dynamic response of wind turbine primary frequency controllers **2017**, | | 16 |
| 55 | Optimal location, sizing and operation of energy storage in distribution systems using multi-objective approach. *IEEE Latin America Transactions*, **2017**, 15, 1084-1090 | 0.7 | 14 |
| 54 | Multi-criteria contingency ranking method for voltage stability. *Electric Power Systems Research*, **2009**, 79, 220-225 | 3.5 | 14 |
| 53 | Comparison of particle swarm based meta-heuristics for the electric transmission network expansion planning problem **2011**, | | 13 |
| 52 | . *IEEE Transactions on Power Systems*, **1993**, 8, 807-814 | 7 | 12 |

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|---|---|---|---|
| 51 | . *IEEE Transactions on Power Systems*, **1994**, 9, 1651-1657 | 7 | 12 |
| 50 | Specialized differential evolution technique to solve the alternating current model based transmission expansion planning problem. *International Journal of Electrical Power and Energy Systems*, **2015**, 68, 243-251 | 5.1 | 11 |
| 49 | Parameterized fast decoupled power flow methods for obtaining the maximum loading point of power systems: Part I. Mathematical modeling. *Electric Power Systems Research*, **2004**, 69, 93-104 | 3.5 | 10 |
| 48 | Real power losses reduction and loading margin improvement via continuation method. *IEEE Transactions on Power Systems*, **2004**, 19, 1690-1692 | 7 | 10 |
| 47 | Probabilistic OPF Model for Unbalanced Three-Phase Electrical Distribution Systems Considering Robust Constraints. *IEEE Transactions on Power Systems*, **2019**, 34, 3443-3454 | 7 | 8 |
| 46 | An efficient method for distribution systems reconfiguration and capacitor placement using a Chu-Beasley based genetic algorithm **2011**, | | 8 |
| 45 | Alternative parameters for the continuation power flow method. *Electric Power Systems Research*, **2003**, 66, 105-113 | 3.5 | 8 |
| 44 | Optimal Conductor Size Selection in Radial Distribution Networks Using a Mixed-Integer Non-Linear Programming Formulation. *IEEE Latin America Transactions*, **2018**, 16, 2213-2220 | 0.7 | 8 |
| 43 | New representation of PV buses in the current injection Newton power flow. *International Journal of Electrical Power and Energy Systems*, **2017**, 90, 237-244 | 5.1 | 7 |
| 42 | A critical evaluation of a maximum loading point estimation method for voltage stability analysis. *Electric Power Systems Research*, **2004**, 70, 195-202 | 3.5 | 5 |
| 41 | Improved method for the calculation of power systems low voltage solutions. *International Journal of Electrical Power and Energy Systems*, **2002**, 24, 503-513 | 5.1 | 5 |
| 40 | Comparison of different screening techniques for the contingency selection function. *International Journal of Electrical Power and Energy Systems*, **1996**, 18, 425-430 | 5.1 | 5 |
| 39 | An efficient hybrid metaheuristics optimization technique applied to the AC electric transmission network expansion planning. *Swarm and Evolutionary Computation*, **2021**, 61, 100830 | 9.8 | 5 |
| 38 | Study of particle swarm optimization variations applied to transmission expansion planning **2013**, | | 4 |
| 37 | Practical method for computing the maximum loading point using a load flow with step size optimisation. *IET Generation, Transmission and Distribution*, **2011**, 5, 1250 | 2.5 | 4 |
| 36 | Maximum loading point computation based on load flow with step size optimization **2008**, | | 4 |
| 35 | Allocation of PMU channels at substations for topology processing and state estimation. *IET Generation, Transmission and Distribution*, **2020**, 14, 2034-2045 | 2.5 | 3 |
| 34 | Security constrained transmission expansion planning for smart transmission grids based on the AC network model **2014**, | | 3 |

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| 33 | Maximization of voltage stability margin by optimal reactive compensation **2008**, | | 3 |
| 32 | Reconfiguration of distribution systems by a modified genetic algorithm **2007**, | | 3 |
| 31 | Power flow model based on artificial neural networks **2005**, | | 3 |
| 30 | Security constrained optimal active power flow via network model and interior point method. *Controle and Automacao*, **2009**, 20, 206-216 | | 3 |
| 29 | Optimal allocation of energy storage devices in distribution systems considering lifetime characteristics of batteries **2016**, | | 3 |
| 28 | Optimal Energy Management of Unbalanced Three-Phase Grid-Connected Microgrids **2019**, | | 2 |
| 27 | Optimal substation PMU placement method for the two-level state estimator **2013**, | | 2 |
| 26 | Energy management of isolated microgrids using mixed-integer second-order cone programming **2017**, | | 2 |
| 25 | Integrated AC/DC transmission expansion planning model considering VSC-MTDC systems **2017**, | | 2 |
| 24 | Efficient probabilistic power flow for weakly-meshed distribution networks **2014**, | | 2 |
| 23 | Ill-conditioned Optimal Power Flow solutions and performance of non-linear programming solvers **2009**, | | 2 |
| 22 | Transient Stability using Energy Function Method in Power Systems Close to Voltage Collapse **2007** , | | 2 |
| 21 | Voltage stability security margin assessment via artificial neural networks **2005**, | | 2 |
| 20 | Parameterized fast decoupled power flow methods for obtaining the maximum loading point of power systems. *Electric Power Systems Research*, **2004**, 69, 85-92 | 3.5 | 2 |
| 19 | Transmission Expansion Planning by using DC and AC Models and Particle Swarm Optimization260-284 | | 2 |
| 18 | AC Transmission Expansion Planning Considering Uncertainty **2019**, | | 2 |
| 17 | A robust power flow approach using synthetic dynamics and optimal multiplier **2013**, | | 1 |
| 16 | Biogeography based optimization algorithms applied to AC transmission expansion planning **2017**, | | 1 |

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|---|---|---|---|
| 15 | Mixed integer linear programming formulation for optimal reactive compensation and voltage control of distribution power systems **2017**, | | 1 |
| 14 | Voltage stability margin determination using the channel components transform **2015**, | | 1 |
| 13 | Transmission asset maintenance programming optimization - the Brazilian Electric System case. *IEEE Latin America Transactions*, **2015**, 13, 1414-1420 | 0.7 | 1 |
| 12 | Practical heuristic approach to solve the Optimal Transmission Switching problem for Smart Grids **2014**, | | 1 |
| 11 | Robust computation of voltage stability margins for transmission and distribution grids **2013**, | | 1 |
| 10 | Practical method for computing the maximum loading point based on load flow with step size optimization **2010**, | | 1 |
| 9 | **2009**, | | 1 |
| 8 | New method based on load flow with step size optimization for calculating the maximum loading point **2009**, | | 1 |
| 7 | Comparison of compensation methods applied to the analysis of topological changes in electrical networks. *International Journal of Electrical Power and Energy Systems*, **1997**, 19, 511-518 | 5.1 | 1 |
| 6 | A new efficient nonlinear programming based method for branch overload elimination. *Controle and Automacao*, **2003**, 14, 76-82 | | 1 |
| 5 | Transmission Expansion Planning Considering the Impact of Distributed Generation **2019**, | | 1 |
| 4 | A lecture on autotransformers for power engineering students. *IEEE Transactions on Education*, **2003**, 46, 373-378 | 2.1 | 0 |
| 3 | Optimal Maintenance Scheduling of Transmission Assets in the Brazilian Electric System. *Journal of Control, Automation and Electrical Systems*, **2021**, 32, 482-491 | 1.5 | 0 |
| 2 | A New Efficient Nonlinear Programming-Based Method for Branch Overload Elimination. *Electric Power Components and Systems*, **2002**, 30, 525-537 | 1 | |
| 1 | Current Status and Perspectives of the Electric Sector in Brazil. *IEEE Latin America Transactions*, **2021**, 19, 660-668 | 0.7 | |