January, 2024.

Marcos J. Rider

Department of Systems and Energy (DSE)
School of Electrical and Computer Engineering (FEEC)
University of Campinas (UNICAMP)
Av. Albert Einstein 400, CEP: 13083-852
Campinas – São Paulo – Brasil
Tel. (+55) 19 3521 3729
Fax. (+55) 19 3521 3866
mjrider@unicamp.br
http://www.dsee.fee.unicamp.br/~mjrider/

CURRENT POSITION

Associate Professor at the University of Campinas, Campinas, São Paulo, Brazil.

EDUCATION

University of Campinas, Campinas, São Paulo, Brazil.
Ph.D. in Electrical Engineering, February 2006.
Thesis title: *Transmission Systems Expansion Planning Using DC – AC Models and Non-linear Programming Techniques, (in Portuguese).*
Federal University of the Maranhão, São Luís, Maranhão, Brazil.
M.Sc. in Electrical Engineering, February 2002.
Thesis title: *Analysis Methodology for a Reactive Power Competitive Market", (in Portuguese).*
National University of Engineering, Lima, Peru.
Professional Engineer, February 2000.
Thesis title: *Proposal for Enhancement of the Peruvian Electrical Concessions Law and its Regulations for Compensation for the Use of Secondary Transmission Systems", (in Spanish)*.
National University of Engineering, Lima, Peru.
B.Sc. (Hons.) in Electrical Engineering, July 1999.

LANGUAGES

Spanish, Portuguese, English.

CURRENT INTERESTS

Operation, planning, and control of energy systems; Developing mathematical tools for decision-making; Exact and approximate optimization techniques.

RECOGNITION

Named as 2 CNPq Researcher in 2011, three years later, in 2014, he was promoted to 1D CNPq Researcher and in 2022 was promoted to 1C CNPq Researcher, thus acknowledging his productivity and ability to conduct high-level research as an independent researcher. *CNPq (National Counsel of Technological and Scientific Development) researcher recognition – given to researchers who stand out among their peers, valuing their scientific production according to normative criteria established by CNPq, and specifically, by the CNPq assistance committees*.

HONORS

2023 – One of the 93 researchers UNICAMP in the ranking scientists with the greatest global impact by scientific publisher Elsevier.
2023 – Ranked #4 in Brazil among Best Scientists in the field of Electronics and Electrical Engineering in the 9th edition of Research.com.
2023 – One of the 70 professors UNICAMP in the ranking of the best scientists in the world.
2023 – Indicated for the Teaching Excellence Award in Undergraduate Education in FEEC.
2021 – Indicated for the Teaching Excellence Award in Undergraduate Education in FEEC.
2020 – One of the 74 researchers at the University of Campinas among the most influential in the world, PLOS Biology.
2020 – Co-supervisor of the Master's Dissertation with Honorable Mention in the choice of the Best Master's Dissertation in Operational Research in the Country, period 2019/2020, Brazilian Society of Operational Research (SOBRAPO).
2020 – Concytec Researcher in the Carlos Monge Medrano Level I Category, National Council of Science, Technology and Technological Innovation (Concytec), Peru.
2019 – Best paper in the section 'Smart Grids: Deployment, Projects, Experiences, Interoperability and Standards' at the IEEE PES Congress Innovative Smart Grid Technologies Latin America (ISGT-LA 2019), IEEE Power & Energy Society.
2019 – Indicated for the Teaching Excellence Award in Undergraduate Education in FEEC.
2017 – Awarded January in recognition of the contribution to the quality of the journal made by:

"A mixed-integer linear programming approach for optimal type, size and allocation of distributed generation in radial distribution systems". Paper published in 2013 and cited in 2014 / 2015 up until June 2016 according to data from Scopus.
2017 – Awarded the best algorithm in "Test Bed 2 – Optimal Scheduling of Distributed Energy Resources" and one of the three best algorithms in "Test Bed 1 – Stochastic OPF Based Active-Reactive Power Dispatch" both in a competition about "Evaluating the Performance of Modern Heuristic Optimizers on Smart Grid Operation Problems", IEEE PES Working Group on Modern Heuristic Optimization, Intelligent Systems Subcommittee, Power System Analysis, Computing, and Economic Committee.
2014 – Awarded one of the five best algorithms in a competition about "Application of Modern Heuristic Optimization Algorithms for Solving Optimal Power Flow Problems", IEEE PES Working Group on Modern Heuristic Optimization, Intelligent Systems Subcommittee, Power System Analysis, Computing, and Economic Committee.
2013 – Co-advisor of Ph.D. thesis with honorable mention award CAPES, IV engineering area.

WORK EXPERIENCE

Assistant Professor at the University of Campinas, São Paulo, Brazil (May 2015 – Oct. 2019).
Assistant Professor, Paulista State University, São Paulo, Brazil, (Mar. 2010 – Apr. 2015).
Researcher Associate and Visiting Professor, Ryerson University, Toronto, Canada, (Feb. 2019 – Jul. 2019).
Researcher Associate and Visiting Professor, University of Campinas, São Paulo, Brazil, (Sep. 2008 – Feb. 2010).
Researcher Associate and Visiting Professor, Technical University of Catalonia, Barcelona, Spain, (Jun. 2007 – Aug. 2008).
Researcher Associate, University of Campinas, São Paulo, Brazil, (Mar. 2006 – May 2007).
Electrical Engineering Analyst, ElectroInter SRL, Lima, Peru, (Oct. 1999 – Feb. 2000).
Electrical Engineering Analyst, Koc Ingenieros EIRL, Lima, Peru, (Aug. 1998 – Sep. 1999).
Teaching Assistant, National University of Engineering, Lima, Peru, (Aug. 1997 – Feb. 1999), Course: PSPICE for WINDOWS.

TEACHING EXPERIENCE

Energy Conversion Principles, Undergraduate.
Electrical Engineering Laboratory, Undergraduate.
Operations Research, Undergraduate.
Energy Conversion Laboratory, Undergraduate.
Circuit Theory and Electrotechnical, Undergraduate.
Electrotechnical, Undergraduate.
Electrical Machines Laboratory, Undergraduate.
Electrical Machines, Undergraduate.
Applied Mathematics for Electrical Engineering, Undergraduate.
Planning and Operation of Electrical Energy System, Undergraduate.
Transmission Network Expansion Planning, Graduate.
Optimization Applied to Electric Power Systems Expansion, Graduate.
Optimization Applied to Electric Distribution Systems, Graduate.
Interior Point Method for Electric Power Systems Optimization, Graduate.
Power System Analysis, Graduate.
Optimal Power Flow, Graduate.
Optimization Using Interior Point Method, Graduate.
Integer Programming, Graduate.
Some disciplines at the graduate level are unpublished, and he aims to present the research conducted, contributing to the creation, consolidation of knowledge, and competence in strategic issues within the areas of teaching and research.

ADMINISTRATIVE POSITIONS

Director of Graduate Program in Electrical Engineering, University of Campinas, São Paulo, Brazil (May 2021 – Current).
Member of the Scientific Council of CEPETRO (Center for Petroleum Studies), University of Campinas, São Paulo, Brazil (Jan. 2020 – Nov. 2023).
Vice Director of Graduate Program in Electrical Engineering, University of Campinas, São Paulo, Brazil (May 2019 – Apr. 2021).
Member of the Graduate Program Board of Electrical Engineering, University of Campinas, São Paulo, Brazil (Oct. 2019 – Apr. 2021).
Member of the Scientific Council of NIPE (Interdisciplinary Center for Energy Planning), University of Campinas, São Paulo, Brazil (Feb. 2017 – Aug. 2019).

Member of the Department Board of Electrical Engineering, Paulista State University, São Paulo, Brazil (Oct 2011 – May 2015).
Member of the Graduate Program Board of Electrical Engineering, Paulista State University, São Paulo, Brazil (Jun. 2013 – May 2015).

10 RESEARCH PROJECTS (AS PRINCIPAL INVESTIGATOR)

1C CNPq Researcher, "Optimization of Microgrid Planning and Operation (in Portuguese)", Campinas, Brazil, 2022-2026.
Paulista Company of Power and Light (CPFL), "CS3060 - Electromobility and Distributed Energy Resources: Platform for Smart Urban Environments and Enabling Business Models (in Portuguese)", Campinas, Brazil, 2020-2023.
FAPESP Research Support Grant, "Mathematical Models and Moderns Solution Techniques for the Planning of the Expansion and Operation of Electrical Energy Systems (in Portuguese)", Campinas, Brazil, 2018-2020.
1D CNPq Researcher, "Branch Flow Models for the Planning and Operation of Electric Power Systems (in Portuguese)", Campinas, Brazil, 2018-2022.
FAPESP Research Support Grant, "Optimization Applied to Electric Distribution Systems (in Portuguese)", Campinas, Brazil, 2015-2017.
1D CNPq Researcher, "Expansion Planning and Operation of Power Distribution Systems (in Portuguese)", Ilha Solteira, Brazil, 2014-2018.
CNPq Research Grant (Edital Universal), "Mixed-Integer Linear Programming Models for the Problem of Distribution System Planning (in Portuguese)", Ilha Solteira, Brazil, 2013-2015.
2 CNPq Researcher, "Transmission Network Expansion Planning (in Portuguese)", Ilha Solteira, Brazil, 2011-2014.
FEPISA Research Support Grant, "Integrated Planning of the Power Distribution System Expansion (in Portuguese)", Ilha Solteira, Brazil, 2010-2011.
FAPESP Research Support Grant (First Projects), "Metaheuristics for the Transmission Network Expansion Planning Using the AC Model (in Portuguese)", Campinas, Brazil, 2008-2009.

14 RESEARCH PROJECTS (AS COLLABORATOR)

FAPESP Research Support Grant, "CPTEn - São Paulo Center for Energy Transition Studies (in Portuguese)", Campinas, Brazil, 2022-2026.
ENGIE Brazil Energy, "Methodologies for the Identification of Operational Restrictions in Systems with High Penetration of Variable Renewable Energy Sources (in Portuguese)", Campinas, Brazil, 2021-2023.
Paulista Company of Power and Light (CPFL), "PA3058 - MERGE: Microgrids for Efficient, Reliable and Greener Energy (in Portuguese)", Campinas, Brazil, 2019-2024.
FAPESP Research Support Grant, "Optimization of Planning and Operation of Electric Power Transmission and Distribution Systems (in Portuguese)", Campinas, Brazil, 2017-2022.
Paulista Company of Power and Light (CPFL), "PA3018 - Technical and Commercial Insertion for Implementation, Development and Analysis of Applications of Energy Storage Technologies in the Operation of Distribution Networks of CPFL (in Portuguese)", Campinas, Brazil, 2017-2020.
Paulista Company of Power and Light (CPFL), "PA3010 – System to Automatic Network Reconfiguration and Optimal Allocation of Controlled Switches (in Portuguese)", Campinas, Brazil, 2015-2018.
Paulista Company of Power and Light (CPFL), "PA0060 - Electrical Mobility - Technical and Commercial Insertion of Electric Vehicles in Business Fleets of the Campinas Metropolitan Region (in Portuguese)", Campinas, Brazil, 2015-2018.
University of Campinas and Princeton University, "SMART-SEN – A Simulation Model of the National Power System with Renewable Generation: Operational Impacts, Regulatory and Costs (in Portuguese)", Campinas, Brazil, 2015-2017.
Energy Company of Minas Gerais (CEMIG), "L2 – Development of a Management System for the Electric Distribution Systems, Through Monitoring, Diagnostics and Reconfiguration Within the Platform and Concepts of Smart Grid (in Portuguese)", Campinas, Brazil, 2012-2014.
Light Service of Electricity S.A (LIGHT), "D423 – Development of a Model of Smart Grid using Distribution Network Automation, Infrastructure of Measurement and Consumer Participation (in Portuguese)", Campinas, Brazil, 2012-2013.
Spanish Ministry of Science and Innovation, "Short- and Medium-Term Multimarket Optimal Electricity Generation Planning with Risk and Environmental Constraints", Barcelona, Spain, 2009-2013.
Spanish Ministry of Science and Innovation, "Short and Long-Term Electricity Generation Planning in a Liberalized Market Including Bilateral Contracts", Barcelona, Spain, 2005-2008.

Power Plants of Northern Brazil S/A (ELETRONORTE), "Software Implementation to Improve of the On-Line Dynamic Security of Electric Energy Systems (in Portuguese)", Maranhão, Brazil, 2004-2005.
Power Plants of Northern Brazil S/A (ELETRONORTE), "Development of Intelligent Software for Training of Operators and Maintenance Staff (in Portuguese)", Maranhão, Brazil, 2004-2005.

8 Short Stays

National University of the Center of Peru, Junín, Peru, Sep. 2019.
University of Antioquia, Medellin, Colombia, Feb. 2017.
Technical University of Federico Santa María, Valparaíso, Chile, Feb. 2016.
Federal University of Juiz de Fora, Juiz de Fora, Brazil, Dec. 2013 – Jan. 2014.
University of Castilla-La Mancha, Toledo, Spain, Nov. 2012 – Jan. 2013.
Technical University of Catalonia, Barcelona, Spain, Jan. 2011.
Federal University of Santa Catarina, Santa Catarina, Brazil, Jul. 2006.
Technology University of Pereira, Pereira, Colombia, Nov. 2004 and Jan. 2012.

17 Invited Seminars

"International Conversation: Electrical Transmission Planning", July 2023.
"The Challenges in Modeling Storage Technologies for the Planning of Electrical Power Systems", March 2020.
"Convex Relaxation in Power Distribution Optimization" Ryerson University, Toronto, Canada, March 2019.
"SOCP and QC Relaxations for the AC Optimal Power Flow Problem" Ryerson University, Toronto, Canada, April 2019.
"Intelligent Electrical Networks or Future Distribution Networks?" National University of San Antonio Abad of Cusco, Cusco, Peru, August 2017.
"Optimization in Electric Power System" National University of San Antonio Abad of Cusco, Cusco, Peru, August 2017.
"*Transmission Network Expansion Planning: Models, Methodologies and Challenges*" University of Antioquia, Medellin, Colombia, February 2017.
"Optimization Applied to the Electric Power Transmission Networks Planning", Technical University of Federico Santa María, Valparaíso, Chile, February 2016.
"Applications of Optimization in the Planning of Networks", Interconexión Eléctrica S.A. E.S.P (ISA), Medellin, Colombia February 2015.
"A Bi-level Approach for Optimal Location and Contract Pricing of Distributed Generation in Radial Distribution Systems Using Mixed-Integer Linear Programming", Technical University of Catalonia, Barcelona, Spain, February 2013.
"Interior Point Method for Electric Power Systems Optimization (in Spanish)*"*, Technology University of Pereira, Pereira, Colombia, January 2012.
"Introduction to Software Usage for Optimization Mathematics (in Portuguese)*"*, Paulista Estate University, Ilha Solteira, Brazil, February 2011.
"*Transmission Network Expansion Planning* (in Portuguese)", Interconnection Electric S.A. E.S.P. – ISA, Medellin, Colombia, October 2011.
"*Transmission Network Expansion Planning: Models, Methodologies and Developed Software* (in Portuguese)", Energy Research Company (EPE), Rio de Janeiro, Brazil, July 2009.
"Optimization Techniques Application and Software Development for Deregulated Power Systems Analysis", Second Manchester Seminar for the Next Generation of Young Researchers in Power Systems, University of Manchester, Manchester, England, 16 - 19 September 2007.
"*Topics About the Planning and Operation of Power Systems* (in Spanish)", National University of Engineering, Lima, Peru, December 2005.
"Interior Point Method for Electric Power Systems Optimization (in Spanish)*"*, Technology University of Pereira, Pereira, Colombia, November 2004.

45 Directions of PhD and Master Students

Lucas Zenichi Terada. *Algoritmos de Recarga Inteligente de Veículos Elétricos Considerando a Integração de Recursos Energéticos Distribuídos*. M.Sc. Thesis defended at the University of Campinas, 2023. Supervisor: **M. J. Rider**.
Luiza Higino Silva Santos. *Modeling and Simulation of the Microgrids of the MERGE-UNICAMP Project*. M.Sc. Thesis defended at the University of Campinas, 2022. Supervisor: **M. J. Rider**.
Juan Carlos Cortez Aucapiña. *Day-ahead Photovoltaic Power Forecasting Based on a Hybrid Deep Learning Methodology*. M.Sc. Thesis defended at the University of Campinas, 2022. Supervisor: **M. J. Rider**.
Gabriela Beatriz Sanchez Ponce. *Sensibility Analysis of Alternating Direction Method of*

Multipliers Applied to Distributed Energy Management of Microgrids. M.Sc. Thesis defended at the University of Campinas, 2022. Supervisor: **M. J. Rider**.

Jefferson Javier Chavez Arias. *Short-Term Hydro-thermal Scheduling with AC Network Constraints using a New Successive Linear Programming*. M.Sc. Thesis defended at the University of Campinas, 2021. Supervisor: **M. J. Rider**.

Fernando Walter Liederer. *Transient Stability Constrained Optimal Power Flow considering the Fourth-Order Synchronous Generator Model*. M.Sc. Thesis defended at the University of Campinas, 2021. Supervisor: **M. J. Rider**.

Bárbara Resende Rosado. *Impact of Massive Penetration of Intermittent Generation and Energy Storage Devices in Planning the Amount of Transmission System Usage*. M.Sc. Thesis defended at the University of Campinas, 2020. Supervisor: **M. J. Rider**.

Mario David Pastrana Iglesias. *Transmission Network Expansion Planning With Renewable Energy Sources and Energy Storage Systems Using Representative Periods*. M.Sc. Thesis defended at the University of Campinas, 2020. Supervisor: **M. J. Rider**.

Santiago Gabriel Constante Flores. *Optimal Reactive Power Dispatch with Discrete Controllers Using a Branch and Bound Algorithm: A Semidefinite Relaxation Approach*. M.Sc. Thesis defended at the University of Campinas, 2020. Supervisor: **M. J. Rider**.

Caio dos Santos. *Integration of a Set of Small Renewable Sources into a Bulk Power System*. M.Sc. Thesis defended at the University of Campinas, 2020. Supervisors: C. Lyra and **M. J. Rider**.

Juan Camilo López Amezquita, *Designing and Implementation of a Self-Healing Scheme for Modern Electrical Distribution Systems*, Ph.D. Thesis defended at the University of Campinas, 2019. Supervisor: **M. J. Rider**.

Miguel Alberto Torres Rodríguez, *A Novel Strategy for the Electric Power Transmission Network Expansion Planning Using a Mixed Integer Linear AC Model*, Ph.D. Thesis defended at the University of Campinas, 2019. Supervisors: C. A. Castro and **M. J. Rider**.

Erik Francisco Alvarez Quispe. *Semidefinite Relaxation for the Optimal Operation and Expansion Planning of Power Transmission Systems*. M.Sc. Thesis defended at the University of Campinas, 2019. Supervisor: **M. J. Rider**.

John Willihans Cruz Condemaita. *N-1 Multi-contingency Transient Stability Constrained Optimal Power Flow with Discrete Controllers using an AC Branch Flow MILP Model Approach*. M.Sc. Thesis defended at the University of Campinas, 2019. Supervisor: **M. J. Rider**.

Fábio Kenji Taniguchi. *Optimal Management of Photovoltaic Inverters for the Voltage Magnitude Control in Electrical Network System*. M.Sc. Thesis defended at the University of Campinas, 2019. Supervisor: **M. J. Rider**.

Erick Facure Giaretta. *Direct Control of Variable Frequency Air Conditioning Appliances in Smart Grids with Photovoltaic Systems and Residential Batteries*. M.Sc. Thesis defended at the University of Campinas, 2019. Supervisor: **M. J. Rider**.

Carlos Francisco Sabillón Antúnez, *Mathematical Optimization of Unbalanced Networks Operation with Smart Grid Devices*, Ph.D. Thesis defended at the Paulista State University, 2018. Supervisor: **M. J. Rider**.

Gloria Patricia Lopez Sepulveda, *Application of Computational Intelligence in Troubleshooting Power Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2017. Supervisor: **M. J. Rider**.

Fernando Marcos Wittmann. *Optimization Applied to Residential Non-Intrusive Load Monitoring*. M.Sc. Thesis defended at the University of Campinas, 2017. Supervisor: **M. J. Rider**.

John Edisson Cardona Ruiz. *Decentralized Load Control of Electric Vehicles Using Local Voltage Magnitude Measurements* (in Portuguese). M.Sc. Thesis defended at the University of Campinas, 2017. Supervisor: **M. J. Rider**.

Luigi Viola. *Short-Term Planning of Battery Operation and Hydrogen Storage in Electric Power Distribution Systems* (in Portuguese). M.Sc. Thesis defended at the University of Campinas, 2017. Supervisors: L. C. P. da Silva and **M. J. Rider**.

Tiago Madureira. *Optimal Management in Virtual Power Plants using Mixed-Integer Linear Programming* (in Portuguese). M.Sc. Thesis defended at the University of Campinas, 2017. Supervisors: L. C. P. da Silva and **M. J. Rider**.

Fernando Vladimir Cerna Ñahuis, *Mathematical Programming Models for Energy Management in Modern Electric Energy Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2017. Supervisor: **M. J. Rider**.

Cristiam Victor Villajuan Montes, *Mixed-Integer Linear Programming Models for Transmission System Expansion Planning Using the AC Model* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2016. Supervisor: **M. J. Rider**.

Marlon Borges Correia de Oliveira, *Three-phase Reconfiguration of Unbalanced Electricity Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2015. Supervisor: **M. J. Rider**.

Marcos André de Jesus Delgado, *Optimization of Radial Electrical Distribution Systems Using Mixed-Integer Second-Order Conic Programming* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2015. Supervisor: **M. J. Rider**.

Juan Camilo López Amezquita, *Optimal Allocation of Interconnect Switches in Electricity Distribution Networks* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2015. Supervisor: **M. J. Rider**.

Marcia Cristina Dal Toé, *Optimal Allocation and Contract Price of the Distributed Generation in Radial Electrical Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2014. Supervisor: **M. J. Rider**.

Jorge Hans Alayo Gamarra, *A Bi-level Model for the Multi-stage Investment in Transmission Capacity and Electricity Generation on Competitive Markets* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2014. Supervisor: **M. J. Rider**.

Rodrigo Romais, *Optimal Reconfiguration of Electricity Distribution Systems Using a Mixed-Integer Second-Order Conic Formulation* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2014. Supervisor: **M. J. Rider**.

Carlos Francisco Sabillon, *Optimal Allocation of SVC and TCSC in Electric Power Transmission Network* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2014. Supervisor: **M. J. Rider**.

Rogerio dos Reis Gonçalves, *Mixed-Integer Linear Programming Models to Solve Optimization Problems in Radial Electrical Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2013. Supervisor: **M. J. Rider**.

Emivan Ferreira da Silva, *Multistage Stochastic Planning of Power Transmission Network Considering Security Restrictions* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2013. Supervisor: **M. J. Rider**.

Hugo Andres Ruiz Flores, *Development a State Estimator for the Unbalanced Electricity Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2013. Supervisors: J. R. Mantovani and **M. J. Rider**.

Mohsen Rahmani, *Study of New Mathematical Models for Transmission Expansion Planning Problem* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2013. Supervisors: R. Romero and **M. J. Rider**.

João de Sousa, *Planning of Electric Power Distribution System Through a Mixed-Integer Linear Programming Model* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2013. Supervisors: J. R. Mantovani and **M. J. Rider**.

Fernando Vladimir Cerna Ñahuis, *Dispatch of Vehicles for Care of Orders Services in Electricity Distribution Networks* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2013. Supervisor: **M. J. Rider**.

Elson Batista Puger, *Non-Iterative Load Flow for the Energy Distribution Systems Analysis* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2013. Supervisor: **M. J. Rider**.

Érica Tatiane Almeida Ribeiro, *Mixed-Integer Programming Models for the Optimal Capacitor Banks Allocation in Radial Electric Power Distribution Systems* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2013. Supervisor: **M. J. Rider**.

Diego Alejandro Tejada Arango, *Transmission Network Expansion Planning Considering Non-Conventional Alternatives* (in Spanish), M.Sc. Thesis defended at the University of Antioquia, 2013. Supervisors: J. M. López-Lezama and **M. J. Rider**.

John Fredy Franco Baquero, *Decomposition Strategies Applied to the Planning Problem of Power Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the Paulista State University, 2012. Supervisors: R. Romero and **M. J. Rider**.

Raiane Piacente Alves, *Optimal Allocation of Voltage Regulators in Radial Electric Distribution Systems Using a Mixed Integer Linear Formulation* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2012. Supervisor: **M. J. Rider**.

Miguel Paredes Quiñoes, *Methodology for Hydrothermal System Planning in Electricity Market* (in Portuguese), M.Sc. Thesis defended at the Paulista State University, 2012. Supervisors: R. Romero and **M. J. Rider**.

Marina Lavorato de Oliveira, *Expansion Planning of Electric Distribution Systems* (in Portuguese), Ph.D. Thesis defended at the University of Campinas, 2010. Supervisors: A. V. Garcia and **M. J. Rider**.

Heloisa Helena Müller, *Artificial Neural Networks Applied to Power Systems* (in Portuguese), M.Sc. Thesis defended at the University of Campinas, 2008. Supervisors: C. A. Castro and **M. J.**

Rider.

PROFESSIONAL MEMBERSHIPS

IEEE Senior Member, since 2016.
IEEE Member, 2006 – 2016.
IEEE Student Member, 1997 – 2005.
Member of Peru Engineers Institute, 2000 – current.

2 PATENTS

J. A. A da Silva, J. C. López, **M. J. Rider,** "Microgrid Web-EMS MERGE", Computer Program, 2023, Brazil.

F. B. B. Rolim, F. C. T. Arioli, **M. J. Rider**, "Adaptive Overcurrent Protection Methodology for Modern Electric Power Distribution Systems", 2021, Brazil.

6 BOOK CHAPTERS

J. C. López, P. P. Vergara, **M. J. Rider** and L. C. P. da Silva, "*Optimal Restoration of Electrical Distribution Systems Considering Switching Sequence*", in: Mariana Resener, Steffen Rebennack, Panos M. Pardalos and Sérgio Haffner. *Handbook of Optimization in Electric Power Distribution Systems*. Springer International Publishing, pp. 273-291, 2020.

J. López, **M. J. Rider** and J. Contreras, "*Electric Distribution Network Planning Under Uncertainty*", in: Mariana Resener, Steffen Rebennack, Panos M. Pardalos and Sérgio Haffner. *Handbook of Optimization in Electric Power Distribution Systems*. Springer International Publishing, pp. 293-323, 2020.

P. P. Vergara, J. C. López, J. M. Rey, L. C. P. da Silva, **M. J. Rider**, "*Energy Management in Microgrids*", in: Antonio Zambroni and Miguel Castilla. *Microgrids Design and Implementation*. Springer International Publishing, pp. 195-216, 2019.

C. F. Sabillón, J. F. Franco, **M. J. Rider,** R. Romero, "*Mathematical Optimization of Unbalanced Networks with Smart Grid Devices*", in: Farhad Shahnia, Ali Arefi and Gerard Ledwich. *Electric Distribution Network Planning*. Springer Singapore, pp. 65-114, 2018.

S. P. Torres, C. A. Castro, **M. J. Rider**, *"Transmission Expansion Planning by using DC and AC Models and Particle Swarm Optimization"*, in: Girolamo Fornarelli and Luciano Mescia. *Swarm Intelligence for Electric and Electronic Engineering*. IGI Global, pp. 260-284, 2013.

M. Rahmani, R. Romero, **M. J. Rider**, M. Paredes, *"Domain Reduction Using GRASP Construction Phase for Transmission Expansion Planning Problem"*, in: Jin-Kao Hao and Martin Middendorf. *Evolutionary Computation in Combinatorial Optimization*. Springer Berlin Heidelberg, pp. 87-98, 2012.

106 JOURNAL PAPERS

A. A. Mohamed, C. Sabillon, A. Golriz, M. Lavorato, **M. J. Rider** and B. Venkatesh, "Capacity Market for Distribution System Operator – with Reliability Transactions – Considering Critical Loads and Microgrids", *IEEE Transactions on Power Delivery*, vol. 38, no. 2, pp. 902–916, Apr. 2023.

J. A. A. Silva, J. C. López, C. P. Guzmán, N. B. Arias, **M. J. Rider** and L. C. P. da Silva, "An IoT-Based Energy Management System for AC Microgrids with Grid and Security Constraints", *Applied Energy*, vol. 337, pp. 120904, May 2023.

N. B. Arias, C. Sabillón, J. F. Franco, J. Quirós-Tortós and **M. J. Rider**, "Hierarchical Optimization for User-Satisfaction-Driven Electric Vehicles Charging Coordination in Integrated MV/LV Networks", *IEEE Systems Journal*, vol. 17, no. 1, pp. 1247–1258, Mar. 2023.

K. V. dos Santos, L. H. S. Santos, N. B. Arias, J. C. López, **M. J. Rider** and L. C. P. da Silva, "Optimal Sizing and Allocation of Distributed Energy Resources in Microgrids Considering Internal Network Reinforcements", *Journal of Control, Automation and Electrical Systems*, vol. 34, pp. 106–119, Feb. 2023.

B. Acuña, D. E. Chérrez, J. C. López, **M. J. Rider** and L. C. P. da Silva, "Design and Implementation of a Machine Learning State Estimation Model for Unobservable Microgrids", *IEEE Access*, vol. 10, pp. 123387-123398, Nov. 2022.

A. A. Mohamed, C. Sabillon, A. Golriz, M. Lavorato, **M. J. Rider** and B. Venkatesh, "Deregulated Distribution System Planning – Incremental Capacity Auction Mechanism with Transactive DERs", *IEEE Transactions on Power Delivery*, vol. 37, no. 6, pp. 4515–4526, Dec. 2022.

F. W. Liederer, J. C. López, D. Dotta and **M. J. Rider**, "Transient Stability Constrained Optimal Power Flow Considering Fourth-Order Synchronous Generator Model and Controls", *Electric Power Systems Research*, vol. 213, pp. 108667, Dec. 2022.

L. J. Cesini Silva, C. P. Guzmán, **M. J. Rider**, "Contracting Strategy for Consumers with Distributed Energy Resources in the Liberalized Electricity Market", *IEEE Access*, vol. 10, pp. 80437-80447, Aug. 2022

J. C. López, L. Z. Terada, **M. J. Rider** and Q. Wu, "Design and Simulation of a Centralized Self-

Healing Scheme for Unbalanced Three-phase Electrical Distribution Systems", *Journal of Control, Automation and Electrical Systems*, vol. 33, pp. 901-911, Jun. 2022.

R. T. Zoppei, M. A. J. Delgado, L. H. Macedo, **M. J. Rider**, and R. Romero, "A Branch and Bound Algorithm for Transmission Network Expansion Planning Using Nonconvex Mixed-Integer Nonlinear Programming Models", *IEEE Access*, vol. 10, pp. 39875–39888, Apr. 2022.

L. A. Zaneti, N. B. Arias, M. C. de Almeida and **M. J. Rider**, "Sustainable Charging Schedule of Electric Buses in a University Campus: A Rolling Horizon Approach", *Renewable & Sustainable Energy Reviews*, vol. 161, pp. 112276, Jun. 2022.

H. Alcahuaman, J. C. López, D. Dotta, **M. J. Rider** and S. Ghiocel, "Optimized Reactive Power Capability of Wind Power Plants with Tap-Changing Transformers", *IEEE Transactions on Sustainable Energy*, vol. 12, no. 4, pp. 1935-1946, Oct. 2021.

F. B. B. Rolim, F. C. L. Trindade, and **M. J. Rider**, "Adaptive Protection Methodology for Modern Electric Power Distribution Systems", *Journal of Control, Automation and Electrical Systems*, vol. 32, pp. 1377-1388, Oct. 2021.

J. A. A da Silva, J. C. López, N. B. Arias, **M. J. Rider** and L. C. P. da Silva, "An Optimal Stochastic Energy Management System for Resilient Microgrids", *Applied Energy*, vol. 300, pp. 117435, Oct. 2021.

A. Argüello and **M. J. Rider**, "A Discrete Time Domain-Based MILP Framework for Control Parameter Tuning", *IEEE Systems Journal*, vol. 15, no. 3, pp. 3462-3469, Sep. 2021.

S. G. Constante F., J. C. López and **M. J. Rider**, "Optimal Reactive Power Dispatch with Discrete Controllers Using a Branch-and-Bound Algorithm: A Semidefinite Relaxation Approach", *IEEE Transactions on Power Systems*, vol. 36, no. 5, pp. 4539-4550, Sep. 2021.

J. C. López, J. I. Ota, **M. J. Rider**, J. A. Pomilio, L. C. P. da Silva e R. G. Bento, "Objetivos e Desafios de um Projeto de Microrredes", *Revista Eletricidade Moderna*, ISSN: 0100–2104, vol. 07/08, pp. 50-55, Jul. 2021.

N. B. Arias, J. C. López, S. Hashemi, J. F. Franco and **M. J. Rider**, "Multi-Objective Sizing of Battery Energy Storage Systems for Stackable Grid Applications", *IEEE Transactions on Smart Grid*, vol. 12, no. 3, pp. 2708-2721, May. 2021.

C. Santos, **M. J. Rider** and C. Lyra, "Optimized Integration of a Set of Small Renewable Sources into a Bulk Power System", *IEEE Transactions on Power Systems*, vol. 36, no. 1, pp. 248-260, Jan. 2021.

J. W. Cruz, J. C. López, D. Dotta and **M. J. Rider**, "N–1 Multi-Contingency Transient Stability Constrained AC Optimal Power Flow with Volt/Var Controllers", *Electric Power Systems Research*, vol. 188, pp. 106526, Nov. 2020.

E. Alvarez, M. Paredes and **M. J. Rider**, "Semidefinite Relaxation and Generalized Benders Decomposition to Solve the Transmission Expansion Network and Reactive Power Planning", *IET Generation, Transmission and Distribution*, vol. 14, no. 11, pp. 2160-2168, Jun. 2020.

C. Guzmán-Lascano, N. B. Arias, J. F. Franco, **M. J. Rider** and R. Romero, "Enhanced Coordination Strategy for an Aggregator of Distributed Energy Resources Participating in the Day-Ahead Reserve Market", *Energies*, vol. 13, no. 8, pp. 1965-1986, Apr. 2020.

F. Shen, J. C. López, Q. Wu, **M. J. Rider**, T. Lu and N. D. Hatziargyriou, "Distributed Self-healing Scheme for Unbalanced Electrical Distribution Systems Based on Alternating Direction Method of Multipliers", *IEEE Transactions on Power Systems*, vol. 35, no. 3, pp. 2190-2199, May 2020.

B. Rosado, R. Torquato, B. Venkatesh, H. B. Gooi, W. Freitas and **M. J. Rider**, "Framework for Optimizing the Demand Contracted by Large Customers", *IET Generation, Transmission and Distribution*, vol. 14, no. 4, pp. 635-644, Feb. 2020.

P. P. Vergara, J. C. López, **M. J. Rider**, H. R. Shaker, L. C. P. da Silva and B. N. Jørgensen, "A Stochastic Programming Model for the Optimal Operation of Unbalanced Three-phase Islanded Microgrids", *International Journal of Electrical Power and Energy Systems*, vol. 115, pp. 105446, Feb. 2020.

J. S. Giraldo, J. C. López, J. A. Castrillon, **M. J. Rider** and C. A. Castro, "Probabilistic OPF Model for Unbalanced Three-phase Electrical Distribution Systems Considering Robust Constraints", *IEEE Transactions on Power Systems*, vol. 34, no. 5, pp. 3443-3454, Sep. 2019.

P. P. Vergara, J. M. Rey, J. C. López, **M. J. Rider**, L. C. P. da Silva, H. R. Shaker and B. N. Jørgensen, "A Generalized Model for the Optimal Operation of Microgrids in Grid-Connected and Islanded Droop-Based Mode", *IEEE Transactions on Smart Grid*, vol. 10, no. 5, pp. 5032-5045, Sep. 2019.

J. S. Acosta, J. C. López and **M. J. Rider**, "Optimal Multi-Scenario, Multi-Objective Allocation of Fault Indicators in Electrical Distribution Systems Using a Mixed-Integer Linear Programming Model", *IEEE Transactions on Smart Grid*, vol. 10, no. 4, pp. 4508-4519, Jul. 2019.

J. S. Giraldo, J. A. Castrillon, J. C. López, **M. J. Rider** and C. A. Castro, "Microgrid Energy Management Using Robust Convex Optimization", *IEEE Transactions on Smart Grid*, vol. 10, no. 4, pp. 4520-4530, Jul. 2019.

J. A. Pinzón, P. P. Vergara, L. C. P. da Silva and **M. J. Rider**, "Optimal Management of Energy Consumption and Comfort for Smart Buildings Operating in a Microgrid", *IEEE Transactions on Smart Grid*, vol. 10, no. 3, pp. 3236-3247, May 2019.

J. C. López, **M. J. Rider** and Q. Wu, "Parsimonious Short-Term Load Forecasting for Optimal Operation Planning of Electrical Distribution Systems", *IEEE Transactions on Power Systems*, vol. 34, no. 2, pp. 1427-1437, Mar. 2019.

P. P. Vergara, J. C. López, **M. J. Rider** and L. C. P. da Silva, "Optimal Operation of Unbalanced Three-Phase Islanded Droop-Based Microgrids", *IEEE Transactions on Smart Grid*, vol. 10, no. 1, pp. 928-940, Jan. 2019.

C. F. Sabillon, J. F. Franco, **M. J. Rider** and R. Romero, "Joint Optimal Operation of Photovoltaic Units and Electric Vehicles in Residential Networks with Storage Systems: A Dynamic Scheduling Method", *International Journal of Electrical Power and Energy Systems*, vol. 103, pp. 136-145, Dec. 2018.

J. C. López, J. F. Franco, **M. J. Rider** and R. Romero, "Optimal Restoration/Maintenance Switching Sequence of Unbalanced Three-Phase Distribution Systems", *IEEE Transactions on Smart Grid*, vol. 9, no. 6, pp. 6058-6068, Nov. 2018.

H. A. Ruiz, E. M. Carreño, **M. J. Rider** and J. R. S. Mantovani, "Distflow Based State Estimation for Power Distribution Networks", *Energy Systems*, vol. 9, no. 4, pp. 1055-1070, Nov. 2018.

F. V. Cerna, M. Pourakbari, R. Romero and **M. J. Rider**, "Optimal Delivery Scheduling and Charging of EVs in the Navigation of a City Map", *IEEE Transactions on Smart Grid*, vol. 9, no. 5, pp. 4815-4827, Sep. 2018.

J. E. Cardona, J. C. López and **M. J. Rider**, "Decentralized Electrical Vehicles Charging Coordination Using Only Local Voltage Magnitude Measurements", *Electric Power Systems Research*, vol. 161, pp. 139-151, Aug. 2018.

F. M. Wittmann, J. C. López and **M. J. Rider**, "Non-Intrusive Load Monitoring Algorithm Using Mixed-Integer Linear Programming", *IEEE Transactions on Consumer Electronics*, vol. 64, no. 2, pp. 180-187, May 2018.

J. C. López, P. P. Vergara, C. Lyra, **M. J. Rider** and L. C. P. da Silva, "Optimal Operation of Radial Distribution Systems Using Extended Dynamic Programming", *IEEE Transactions on Power Systems*, vol. 33, no. 2, pp. 1352-1363, Mar. 2018.

H. Alayo, **M. J. Rider** and J. Contreras, "Economic Externalities in Transmission Network Expansion Planning", *Energy Economics*, vol. 68, pp. 109-115, Oct. 2017.

C. F. Sabillon, O. D. M. Dominguez, J. F. Franco, M. Lavorato and **M. J. Rider**, "Volt-VAr Control and Energy Storage Device Operation to Improve the Electric Vehicle Charging Coordination in Unbalanced Distribution Systems", *IEEE Transactions on Sustainable Energy*, vol. 8, no. 4, pp. 1560-1570, Oct. 2017.

P. P. Vergara, J. C. López, L. C. P. da Silva and **M. J. Rider**, "Security-Constrained Optimal Energy Management System for Three-Phase Residential Microgrids", *Electric Power Systems Research*, vol. 146, pp. 371-382, May 2017.

L. H. Macedo, C. V. Montes, J. F. Franco, **M. J. Rider** and R. Romero, "An MILP Branch Flow Model for Concurrent AC Multistage Transmission Expansion and Reactive Power Planning with Security Constraints", *IET Generation, Transmission and Distribution*, vol. 10, no. 12, pp. 3023-3032, Sep. 2016.

J. C. López, J. F. Franco and **M. J. Rider**, "Optimization-Based Switch Allocation to Improve Energy Losses and Service Restoration in Radial Electrical Distribution Systems", *IET Generation, Transmission and Distribution*, vol. 10, no. 11, pp. 2792-2801, Aug. 2016.

J. C. López, M. Lavorato and **M. J. Rider**, "Optimal Reconfiguration of Electrical Distribution Systems Considering Reliability Indices Improvement", *International Journal of Electrical Power & Energy Systems*, vol. 78, pp. 837-845, Jun. 2016.

J. F. Franco, **M. J. Rider** and R. Romero, "Robust Multi-Stage Substation Expansion Planning Considering Stochastic Demand", *IEEE Transactions on Power Systems*, vol. 31, no. 3, pp. 2125 – 2134, May 2016.

A. Tabares, J. F. Franco, M. Lavorato and **M. J. Rider**, "Multi-Stage Long-Term Expansion Planning of Electrical Distribution Systems Considering Multiple Alternatives", *IEEE Transactions on Power Systems*, vol. 31, no. 3, pp. 1900 – 1914, May 2016.

C. F. Sabillon, J. F. Franco, **M. J. Rider** and R. Romero, "A New Methodology for the Optimal Charging Coordination of Electric Vehicles Considering Vehicle-to-Grid Technology", *IEEE Transactions on Sustainable Energy*, vol. 7, no. 2, pp. 596-607, Apr. 2016

J. C. López, M. Lavorato, J. F. Franco and **M. J. Rider**, "Robust Optimization Applied to the Reconfiguration of Distribution Systems with Reliability Constraints", *IET Generation, Transmission and Distribution*, vol. 10, no. 4, pp. 917-927, Mar. 2016

M. Pourakbari-Kasmaei, **M. J. Rider** and J. R. S. Mantovani, "Multi-area Environmentally Constrained Active–Reactive Optimal Power Flow: A Short-Term Tie Line Planning Study", *IET Generation, Transmission and Distribution*, vol. 10, no. 2, pp. 299-309, Feb. 2016

R. Romero, J. F. Franco, F. B. Leão, **M. J. Rider** and E. S. de Souza, "A New Mathematical Model for the Restoration Problem in Balanced Radial Distribution Systems", *IEEE Transactions on Power Systems*, vol. 31, no. 2, pp. 1259-1268, Mar. 2016.

P. L. Cavalcante, J. C. López, J. F. Franco, **M. J. Rider**, A. V. Garcia, M. R. R. Malveira, L. L. Martins and L. C. Direito, "Centralized Self-Healing Scheme for Electrical Distribution Systems", *IEEE Transactions on Smart Grid*, vol. 7, no. 1, pp. 145-155, Jan. 2016.

M. Pourakbari-Kasmaei, **M. J. Rider** and J. R. S. Mantovani, "An Unambiguous Distance-Based MIQP Model to Solve Economic Dispatch Problems with Disjoint Operating Zones", *IEEE Transactions on Power Systems*, vol. 31, no. 1, pp. 825-826, Jan. 2016.

L. H. Macedo, J. F. Franco, **M. J. Rider** and R. Romero, "Optimal Operation of Distribution Networks Considering Energy Storage Devices", *IEEE Transactions on Smart Grid*, vol. 6, no. 6, pp. 2825-2836, Nov. 2015.

P. M. de Quevedo, J. Contreras, **M. J. Rider** and J. Allahdadian, "Contingency Assessment and Network Reconfiguration in Distribution Grids Including Wind Power and Energy Storage", *IEEE Transactions on Sustainable Energy*, vol. 6, no. 4, pp. 1524-1533, Oct. 2015.

J. F. Franco, **M. J. Rider** and R. Romero, "A Mixed-Integer Linear Programming Model for the Electric Vehicle Charging Coordination Problem in Unbalanced Electrical Distribution Systems", *IEEE Transactions on Smart Grid*, vol. 6, no. 5, pp. 2200-2210, Sep. 2015.

D. Tejada, J. M. López-Lezama, **M. J. Rider** and G. Vinasco, "Transmission Network Expansion Planning Considering Repowering and Reconfiguration", *International Journal of Electrical Power & Energy Systems*, vol. 69, pp. 213-221, Jul. 2015.

R. R. Gonçalves, J. F. Franco and **M. J. Rider**, "Short-Term Expansion Planning of Radial Electrical Distribution System Using Mixed-Integer Linear Programming", *IET Generation, Transmission and Distribution*, vol. 9, no. 3, pp. 256-266, Mar. 2015.

E. F. da Silva, M. Rahmani and **M. J. Rider**, "A Search Space Reduction Strategy and a Mathematical Model for Multistage Transmission Expansion Planning with N-1 Security Constraints", *Journal of Control, Automation and Electrical Systems*, vol. 26, no. 1, pp. 57-67, Feb. 2015.

J. de Souza, **M. J. Rider** and J. R. S. Mantovani, "Planning of Distribution Systems Using Mixed-Integer Linear Programming Models Considering Network Reliability", *Journal of Control, Automation and Electrical Systems*, vol. 26, no. 1, pp. 170-179, Feb. 2015.

J. A. Jardini, T. Sousa, R. A. Romero, **M. J. Rider**, M. A. B. Horita, M. Bassini and M. R. Cavalheiro, "Power Flow Control in the Converters Interconnecting AC-DC Meshed Systems", *Electrotechnical Review*, vol. 2015, no. 1, pp. 46-49, Jan. 2015.

M. Pourakbari-Kasmaei, **M. J. Rider** and J. R. S. Mantovani, "An Unequivocal Normalization-Based Paradigm to Solve Dynamic Economic and Emission Active-Reactive OPF", *Energy*, vol. 73, pp. 554-566, Aug. 2014.

J. F. Franco, **M. J. Rider** and R. Romero, "A Mixed-Integer Quadratically-Constrained Programming Model for the Distribution System Expansion Planning", *International Journal of Electrical Power & Energy Systems*, vol. 62, pp. 265-272, Nov. 2014.

D. Tejada, J. M. López-Lezama and **M. J. Rider**, "Planeamiento de la Expansión de la Red de Transmisión en Sistemas Eléctricos de Potencia Considerando Reconfiguraciones de Red", *Informacion Tecnologica*, vol. 25, pp. 85-96, 2014.

G. Vinasco, D. Tejada, E. F. da Silva and **M. J. Rider**, "Transmission Network Expansion Planning of the Colombian Electrical System: Connecting of Ituango Hydroelectric Power Plant", *Electric Power Systems Research*, vol. 110, pp. 94-103, May. 2014.

M. C. O. Borges, J. F. Franco and **M. J. Rider**, "Optimal Reconfiguration of Electrical Distribution Systems using Mathematical Programming", *Journal of Control, Automation and Electrical Systems*, vol. 25, no. 1, pp. 103-111, Feb. 2014.

M. Rahmani, G. Vinasco, **M. J. Rider**, R. Romero and P. Pardalos, "Multistage Transmission Expansion Planning Considering Fixed Series Compensation Allocation", *IEEE Transactions on Power Systems*, vol. 28, no. 4, pp. 3795-3805, Nov. 2013.

R. R. Gonçalves, R. P. Alves, J. F. Franco and **M. J. Rider**, "Operation Planning of Electric Power Distribution Networks Using a Mixed Integer Linear Model", *Journal of Control, Automation and Electrical Systems*, vol. 24, no. 5, pp. 668-679, Oct. 2013.

M. Rahmani, R. Romero and **M. J. Rider**, "Strategies to Reduce the Number of Variables and the Combinatorial Search Space of the Multistage Transmission Expansion Planning Problem", *IEEE Transactions on Power Systems*, vol. 28, no. 3, pp. 2164–2173, Aug. 2013.

M. J. Rider, J. M. López-Lezama, J. Contreras and A. Padilha-Feltrin, "Bilevel Approach for Optimal Location and Contract Pricing of Distributed Generation in Radial Distribution Systems Using Mixed-Integer Linear Programming", *IET Generation, Transmission and Distribution*, vol. 7, no. 7, pp. 724–734, Jul. 2013.

J. F. Franco, **M. J. Rider**, M. Lavorato and R. Romero, "A Mixed-Integer LP Model for the Optimal Allocation of Voltage Regulators and Capacitors in Radial Distribution Systems", *International Journal of Electrical Power & Energy Systems*, vol. 48, pp. 123–130, Jun. 2013.

A. C. Rueda, J. F. Franco, **M. J. Rider**, A. Padilha-Feltrin and R. Romero, "A Mixed-Integer Linear Programming Approach for Optimal Type, Size and Allocation of Distributed Generation in Radial Distribution Systems", *Electric Power Systems Research*, vol. 97, pp. 133–143, Apr. 2013.

J. F. Franco, **M. J. Rider**, M. Lavorato and R. Romero, "A Mixed-Integer LP Model for the Reconfiguration of Radial Electric Distribution Systems Considering Distributed Generation", *Electric Power Systems Research*, vol. 97, pp. 51–60, Apr. 2013.

M. Rahmani, R. Romero and **M. J. Rider**, "Risk/Investment-Driven Transmission Expansion Planning with Multiple Scenarios", *IET Generation, Transmission and Distribution*, vol. 7, no. 2, pp. 154–165, Feb. 2013.

J. F. Franco, **M. J. Rider**, M. Lavorato and R. Romero, "Optimal Conductor Size Selection and Reconductoring in Radial Distribution Systems Using a Mixed-Integer LP Approach", *IEEE Transactions on Power Systems*, vol. 28, no. 1, pp. 10–20, Feb. 2013.

M. Lavorato, J. F. Franco, **M. J. Rider** and R. Romero, Closure to Discussion on "Imposing Radiality Constraints in Distribution System Optimization Problems", *IEEE Transactions on Power Systems*, vol. 28, ppp. 568-569, 2013.

M. Granada, **M. J. Rider**, J. R. S. Mantovani and M. Shahidehpour, "A Decentralized Approach for Optimal Reactive Power Dispatch Using a Lagrangian Decomposition Method", *Electric Power Systems Research*, vol. 89, pp. 148–156, Aug. 2012.

F. J. Heredia, **M. J. Rider** and C. Corchero, "A Stochastic Programming Model for the Optimal Electricity Market Bid Problem with Bilateral Contracts for Thermal and Combined Cycle Units", *Annals of Operations Research*, vol. 193, no. 1, pp. 107–127, Mar. 2012.

M. Lavorato, J. F. Franco, **M. J. Rider** and R. Romero, "Imposing Radiality Constraints in Distribution System Optimization Problems", *IEEE Transactions on Power Systems*, vol. 27, no. 1, pp. 172–180, Feb. 2012.

G. Vinasco, **M. J. Rider** and R. Romero, "A Strategy to Solve the Multistage Transmission Expansion Planning Problem", *IEEE Transactions on Power Systems*, vol. 26, no. 4, pp. 2574–2576, Nov. 2011.

H. H. Müller, **M. J. Rider** and C. A. Castro, "Artificial Neural Networks for Load Flow and External Equivalents Studies", *Electric Power Systems Research*, vol. 80, no. 9, pp. 1033–1041, New York, USA, Sep. 2010.

C. R. N. Estevam, **M. J. Rider**, E. Amorim and J. R. S. Mantovani, "Reactive Power Dispatch and Planning Using a Non-Linear Branch-and-Bound Algorithm", *IET Generation, Transmission and Distribution*, vol. 4, no. 8, pp. 963–973, Aug. 2010.

M. Lavorato, **M. J. Rider**, A. V. Garcia and R. Romero, "A Constructive Heuristic Algorithm for Distribution System Planning", *IEEE Transactions on Power Systems*, vol. 25, no. 3, pp. 1734–1742, Aug. 2010.

F. J. Heredia, **M. J. Rider** and C. Corchero, "Optimal Bidding Strategies for Thermal and Generic Programming Units in the Day-ahead Electricity Market", *IEEE Transactions on Power Systems*, vol. 25, no. 3, pp. 1504–1518, Aug. 2010.

A. T. Azevedo, A. R. L. Oliveira, **M. J. Rider** and S. Soares, "How to Efficiently Incorporate Facts Devices in Optimal Active Power Flow Model", *Journal of Industrial and Management Optimization*, vol. 6, no. 2, pp. 315–331, May 2010.

S. Segura, R. Romero and **M. J. Rider**, "Heuristic Algorithm Used for Optimal Capacitor Placement in Distribution Systems", *International Journal of Electrical Power & Energy Systems*, vol. 6, no. 2, pp. 315–331, May 2010.

M. J. Rider, A. V. Garcia and R. Romero, "Transmission System Expansion Planning by a Branch-and-Bound Algorithm", *IET Generation, Transmission and Distribution*, vol. 2, no. 1, pp. 90–99, Jan. 2008.

R. Romero, **M. J. Rider** and I. J. Silva, "A Metaheuristic to Solve the Transmission Expansion Planning", *IEEE Transactions on Power Systems*, vol. 22, no. 4, pp. 2289–2291, Nov. 2007.

M. J. Rider, A. V. Garcia and R. Romero, "Power System Transmission Network Expansion

Planning Using AC Model", *IET Generation, Transmission and Distribution*, vol. 1, no. 5, pp. 731–742, Set. 2007.

I. J. Silva, **M. J. Rider**, R. Romero and C. A. Murari, "Transmission Network Expansion Planning Considering Uncertainty in Demand", *IEEE Transactions on Power Systems*, vol. 21, no. 4, pp. 1565–1573, Nov. 2006.

I. J. Silva, **M. J. Rider**, R. Romero, A. V. Garcia and C. A. Murari, "Transmission Network Expansion Planning with Security Constraints", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 152, no. 6, pp. 828–836, Nov. 2005.

I. G. Sánchez, R. Romero, J. R. S. Mantovani and **M. J. Rider**, "Transmission– Expansion Planning Using the DC Model and Nonlinear–Programming Technique", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 152, no. 6, pp. 763–769, Nov. 2005.

M. J. Rider, C. A. Castro, M. F. Bedriñana and A. V. Garcia, "Towards a Fast and Robust Interior Point Method for Power System Applications", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 151, no. 5, pp. 575–581, Set. 2004.

M. J. Rider, C. A. Castro, V. L. Paucar and A. V. Garcia, "Higher Order Interior–Point Method for Minimising Load–Shedding in a Competitive Electric Power Market", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 151, no. 4, pp. 433–440, Jul. 2004.

M. J. Rider, V. L. Paucar and A. V. Garcia, "Enhanced Higher–Order Interior–Point Method to Minimise Active Power Losses in Electric Energy Systems", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 151, no. 4, pp. 517–525, Jul. 2004.

M. J. Rider and V. L. Paucar, "Application of a Nonlinear Reactive Power Pricing Model for Competitive Electric Markets", *IEE Proceedings of Generation, Transmission and Distribution*, vol. 151, no. 3, pp. 407–414, May. 2004.

V. L. Paucar and **M. J. Rider**, "Artificial Neural Networks for Solving the Power Flow Problem in Electric Power Systems", *Electric Power Systems Research*, vol. 62, no. 2, pp. 139–144, Jun. 2002.

D. Tejada, J. M. López-Lezama and **M. J. Rider**, "Planeamiento de la Expansión de la Red de Transmisión en Sistemas Eléctricos de Potencia Considerando Reconfiguraciones de Red", *Revista Información Tecnológica*, vol. 25, no. 1, pp. 85-96, Ene-Feb. 2014.

M. Granada, **M. J. Rider** e J. R. S. Mantovani, "Fluxo de Potência AC Para Operação Independente de Áreas Interligadas", *Revista Controle & Automação*, vol. 22, no. 4, pp. 325-333, Jul.–Ago, 2011.

M. Granada, **M. J. Rider** y J. R. S. Mantovani, "Dos Técnicas de Descomposición Aplicadas al Problema de Flujo de Potencia Óptimo Reactivo Multi-areas", *Revista Dyna Medellín*, vol. 77, no. 162, pp. 303–312, Colombia, Jun. 2010.

M. J. Rider, V. L. Paucar, A. V. Garcia y M. F. Bedriñana, "Flujo de Potencia Óptimo Usando un Método de Puntos Interiores para Sistemas Eléctricos de Potencia", *Revista TECNIA*, vol. 14, no. 1, pp. 59–72, Lima, Perú, Julio 2004.

M. J. Rider, V. L. Paucar, A. V. Garcia y M. F. Bedriñana, "Minimización del Corte de Carga en Sistemas de Potencia Mediante un Método de Optimización de Puntos Interiores", *Revista TECNIA*, vol. 14, no. 1, pp. 73–86, Lima, Perú, Julio 2004.

J. E. O. Pessanha, V. L. Paucar y **M. J. Rider**, "Análisis en el Dominio del Tiempo de los Mecanismos Inherentes al Fenómeno de Estabilidad de Tensión en Sistemas de Potencia", *Revista TECNIA*, vol. 12, no. 1, pp. 11–21, Lima, Perú, Julio 2002.

V. L. Paucar y **M. J. Rider**, "External Equivalents for Security Analysis of Interconnected Power Systems", Revista TECNIA, vol. 12, no. 1, pp. 31–42, Lima, Perú, Julio 2002.

V. L. Paucar, **M. J. Rider** y A. L. Morelato, "Simulación e Identificación de Sistemas Dinámicos Mediante Redes Neuronales Entrenadas con el Método de Retropropagación de Errores y Teacher Forcing", Revista TECNIA, vol. 11, no. 1, pp. 51–60, Lima, Peru, Jul. 2001.

V. L. Paucar y **M. J. Rider**, "Aplicación de Redes Neuronales Artificiales Para la Solución del Problema de Flujo de Potencia en Sistemas de Energía Eléctrica", Revista TECNIA, vol. 10, no. 2, pp. 57–64, Lima, Perú, Dic. 2000.

155 CONFERENCE PAPERS

E. A. Nagata, M. J. Rider and B. E. Carmelito, "Otimização do Gerenciamento de Microrrede para Recarga de Veículos Elétricos", Proceedings of the 8 Congresso Brasileiro de Geração Distribuida (CBGD 2023), Belo Horizonte, Minas Gerais, Brasil, Nov. 16–17, 2023.

B. R. Rosado, M. J. Rider, W. Freitas and B. Venkatesh, "Transmission System Usage Amount Planning by Brazilian Distribution Utilities", Proceedings of the 2023 IEEE PES Conference on Innovative Smart Grid Technologies Latin America (ISGTLA 2023), paper 1570929412, pp. 01–05, San Juan, Puerto Rico, Nov. 6–9, 2023.

L. Z. Terada, J. C. Cortez, L. S. Volotão, J. Soares, M. J. Rider and Z. Vale, "Challenges and Solutions in Managing a Real-Time Database of Monitored Buildings", Proceedings of the 15th

Seminar on Power Electronics and Control (SEPOC 2023), Rio Grande do Sul, Brasil, Oct. 22–25, 2023.

J, C. Cortez, L. Z. Terada, B. B. Bandeira, J. Soares, M. J. Rider and Z. Vale, "Comparative Analysis of ARIMA, LSTM, and XGBoost for Very Short-Term Photovoltaic Forecasting", Proceedings of the 15th Seminar on Power Electronics and Control (SEPOC 2023), Rio Grande do Sul, Brasil, Oct. 22–25, 2023.

L. H. S. Santos, J. A. A. da Silva, R. K. Carneiro, G. S. Chagas, M. J. Rider and L. C. P. da Silva, "Power Smoothing in Condominium Microgrids ConGRID Case Study", Proceedings of the 15th Seminar on Power Electronics and Control (SEPOC 2023), Rio Grande do Sul, Brasil, Oct. 22–25, 2023.

J. A. A. Silva, L. H. S. Santos, J. C. López, J. I. Y. Ota, M. J. Rider and L. C. P. da Silva, "Stochastic Optimal Operation of DC Microgrids", Anais do XVI Congresso Brasileiro de Inteligência Computacional (CBIC2023), paper: 46, pp. 01–06, Salvador, Bahia, Brasil, Oct. 8–11, 2023.

J. A. A. Silva, L. H. S. Santos, R. Quadros, J. C. López, M. J. Rider e L. C. P. da Silva, "Operação Ótima de uma Microrrede em um Campus Universitário", Anais do Simpósio Brasileiro de Sistemas Elétricos (SBSE 2023), paper: SBSE2023-2070, pp. 01–06, Manaus, Amazonas, Brasil, Oct. 15–18, 2023.

F. Castro, B. Canizes, J. Soares, M. J. Rider, and Zita Vale, "Distributed Resources Remuneration on a Medium Voltage Network with Uncertainty and Seasonal Impacts", Proceedings of the Energy Informatics Academy (EIA) Conference 2023, Paper ID: 027, pp. 1–17, Campinas, Brazil, Dec. 6 – 8, 2023.

J. C. López, M. E. T. Gerards, J. L. Hurink, and M. J. Rider, "Enhanced Distributed Self-Healing System for Electrical Distribution Networks Using ADMM", Proceedings of the 2023 Power Engineering Society General Meeting, paper 23PESGM0633, Orlando, Florida, USA, Jul. 16–20, 2023.

L. Z. Terada, J. C. Cortez, J. C. López, J. Soares, Z. Vale, and M. J. Rider, "Overload Mitigation in Electric Vehicle Smart Charging Algorithms Using Photovoltaic Generation Forecasting", Proceedings of the 2023 International Conference on Future Energy Solutions (FES 2023), paper 0885, Vaasa, Finland, Jun. 12–14, 2023.

L. Viola, C. Sagastizábal, M. R. Hesamzadeh, D. Dotta and M J. Rider, "Analysis of Nonconvexities for Pricing Inertial Response in Electricity Markets", Proceedings of the 2023 North American Innovative Smart Grid Technologies Conference (ISGT NA 2023), paper xx, pp. 01–05, Washington, USA, Jan. 16–19, 2023.

L. Z. Terada, J. C. López, C. P. Guzmán, M. J. Rider and L. C. P. Silva, "Evaluation of an IoT-based Smart Charging Algorithm for Electric Vehicles Considering Multiprocessing", Proceedings of the Symposium on IoT (SIoT), paper xx, pp. 01–04, São Paulo, Brazil, Oct. 24–28, 2022.

C. P. Guzmán, J. C. López, G. Sanchez, L. Z. Terada, M. J. Rider and L. C. P. Silva, "An ADMM-based Distributed Energy Management System for Microgrids", Proceedings of the IEEE PES Innovative Smart Grid Technologies Europe 2022 (ISGT Europe 2022), pp. 01–05, University of Novi Sad, Serbia, Oct. 10–12, 2022.

L. Z. Terada, J. C. López, C. P. Guzman, M. J. Rider and L. C. P. Silva, "An IoT-based Smart Charging Algorithm Considering Local Distributed Energy Resources and V2G Technology", Proceedings of the 5th International Conference on Smart Energy Systems and Technologies (SEST-2022), paper 40, pp. 01–06, Eindhoven, The Netherlands, Sep. 5–7, 2022.

J. A. A. Silva, N. B. Arias, J. C. López, L. H. S. Santos, M. J. Rider e L. C. P. Silva, "Dimensionamento de Componentes e Operação Ótima de Microrredes", Proceedings of the XV Symposium of Specialists in Electric Operational and Expansion Planning (XV SEPOPE), paper 1210, pp. 01–06, Foz de Iguaçu (PR), Brazil, Mar. 15–18, 2022.

L. H. S. Santos, N. B. Arias, J. C. López, J. A. A. da Silva, M. J. Rider, L. C. P. da Silva, "Microgrid Simulator: Uma Ferramenta Aprimorada para Simulação e Análise da Operação de Microrredes", Proceedings of the XV Symposium of Specialists in Electric Operational and Expansion Planning (XV SEPOPE), paper 1213, pp. 01–06, Foz de Iguaçu (PR), Brazil, Mar. 15–18, 2022.

L. Z. Terada, J. C. López, N. B. Arias, M. J. Rider, L. C. P. da Silva e E. P. Lacusta Junior, "Políticas de Preços e Potências para Eletropostos Públicos Considerando Monitoramento de Recursos Energéticos Distribuídos em Plataforma IoT", Proceedings of the XV Symposium of Specialists in Electric Operational and Expansion Planning (XV SEPOPE), paper 1226, pp. 01–06, Foz de Iguaçu (PR), Brazil, Mar. 15–18, 2022.

L. H. Silva Santos, J. A. A da Silva, J. C. López, N. B. Arias, M. J. Rider and L. C. P. da Silva, "Integrated Optimal Sizing and Dispatch Strategy for Microgrids Using HOMER Pro",

Proceedings of the 2021 IEEE PES Conference on Innovative Smart Grid Technologies Latin America (ISGTLA 2021), paper 48, pp. 01–05, Lima, Perú, Sep. 15–17, 2021.

L. Z. Terada, J. C. López, N. B. Arias, M. J. Rider, L. C. P. da Silva and E. P. Lacusta Junior, "EV Charging Simulator for Public Infrastructure Considering Power Limit and Price Policies", Proceedings of the 2021 IEEE PES Conference on Innovative Smart Grid Technologies Latin America (ISGTLA 2021), paper 74, pp. 01–05, Lima, Perú, Sep. 15–17, 2021.

R. D. Hernandez, J. S. Giraldo, G. Tsaousoglou, N. G. Paterakis and M. J. Rider, "Congestion Management in Distribution Systems using Virtual Power Lines", Proceedings of the 4th International Conference on Smart Energy Systems and Technologies (SEST-2021), paper 312, pp. 01–06, Vaasa, Finland, Sep. 6–8, 2021.

J. C. López, N. B. Arias and M. J. Rider, "An MPEC Model for the Optimal Operation of Unbalanced Three-phase Distribution Systems", Proceedings of the International Conference 2021 IEEE Madrid PowerTech, paper 370, pp. 01–06, Madrid, Spain, Jun. 27-Jul 02, 2021.

N. B. Arias, J. C. López, M. J. Rider and J. F. Franco, "Adaptive Robust Linear Programming Model for the Charging Scheduling and Reactive Power Control of EV Fleets", Proceedings of the International Conference 2021 IEEE Madrid PowerTech, paper 368, pp. 01–06, Madrid, Spain, Jun. 27-Jul 02, 2021.

C. P. Guzman, J. F. Franco, R. Romero, N. B. Arias and M. J. Rider, "Secondary Reserve Provision through a Smart Aggregation Strategy of Electric Vehicles", Proceedings of the International Conference 2021 IEEE Madrid PowerTech, paper 57, pp. 01–06, Madrid, Spain, Jun. 27-Jul 02, 2021.

J. A. A da Silva, J. C. López, N. B. Arias, M. J. Rider and L. C. P. da Silva, "Security-Constrained Energy Management System for Microgrids Under Uncertainty", Proceedings of the 2020 IEEE PES Transmission & Distribution Latin America Conference and Exposition (T&D-LA 2020), Montevideo, Uruguay, Sep. 28 – Oct. 02, 2020.

F. B. B. Rolim, F. C. L. Trindade e M. J. Rider, "Desenvolvimento de uma Metodologia para Proteção Adaptativa em Sistemas Modernos de Distribuição de Energia Elétrica", Anais do VIII Simpósio Brasileiro de Sistemas Elétricos (SBSE 2020), pp. 01–06, Santo André, São Paulo, Brasil, Agosto 25–28, 2020.

J. C. López, J. I. Ota, M. J. Rider, J. A. Pomilio, L. C. P. da Silva e R. G. Bento, "Objetivos e Desafios do Projeto P&D MERGE: Microgrids for Efficient, Reliable and Greener Energy", Anais do VIII Simpósio Brasileiro de Sistemas Elétricos (SBSE 2020), pp. 01–06, Santo André, São Paulo, Brasil, Agosto 25–28, 2020.

C. Santos, M. J. Rider and C. Lyra, "Connecting a Cluster of Small Renewable Sources to a Power System", Proceedings of the 2019 IEEE PES Conference on Innovative Smart Grid Technologies Latin America (ISGTLA 2019), paper 181, pp. 01–06, Wish Serrano Hotel, Gramado, RS, Brasil, Sep. 15–18, 2019.

L. Viola, L. C. P. da Silva and M. J. Rider, "Optimal Operation of Battery and Hydrogen Energy Storage Systems in Electrical Distribution Networks for Peak Shaving", Proceedings of the 2019 IEEE PES Conference on Innovative Smart Grid Technologies Latin America (ISGTLA 2019), paper 001, pp. 01–06, Wish Serrano Hotel, Gramado, RS, Brasil, Sep. 15–18, 2019.

E. F. Alvarez, J. C. López, P. P. Vergara, J. J. Chavez and M. J. Rider, "A Stochastic Market-Clearing Model Using Semidefinite Relaxation", Proceedings of the International Conference 2019 IEEE Milano PowerTech, paper 125, pp. 01–06, Milano, Italy, Jun. 23-29, 2019.

P. P. Vergara, J. C. López, L. C. P. da Silva and M. J. Rider, "Economic Impact of the Active Power Droop Gain in Droop-Based Islanded Microgrids", Proceedings of the International Conference 2019 IEEE Milano PowerTech, paper 54, pp. 01–06, Milano, Italy, Jun. 23-29, 2019.

J. C. López, F. Shen, M. J. Rider and Q. Wu, "Distributed Service Restoration of Active Electrical Distribution System using ADMM", Proceedings of the IEEE International Conference on Innovative Smart Grid Technologies (ISGT Europe 2019), pp. 01–06, Washington, USA, Feb. 18–21, 2019.

A. Argüello, T. R. Ricciardi and M. J. Rider, "Control Tuning of Energy Storage Systems based on Operating Point Consistency", Proceedings of the 2018 IEEE PES Transmission & Distribution Latin America Conference and Exposition (T&D-LA 2018), Lima, Perú, Sep. 18–20, 2018.

M. N. Bañol, R. Romero, J. C. López and M. J. Rider, "Optimal Sizing of Stationary Energy Storage Systems Participating in Primary Frequency Regulation Markets", Proceedings of the 2018 IEEE PES Transmission & Distribution Latin America Conference and Exposition (T&D-LA 2018), Lima, Perú, Sep. 18–20, 2018.

B. Rosado, T. R. Ricciardi, M. Suzuki e M. J. Rider, "Avaliação de Desempenho do Controle Automático Integrado de Tensão e Potência Reativa em Subestações de Distribuição de Energia Elétrica", Anais do XXII Congresso Brasileiro de Automática 2018, pp. 01–08, Hotel Tropical

Tambaú, João Pessoa, Paraíba, Brazil, Sep. 9–12, 2018.
M. A. Torres R., C. A. Castro, and M. J. Rider, "An Search Space Reduction Strategy within the MILP Branch Flow Model for Concurrent Reactive Power and AC Transmission Expansion Planning", 50th North American Power Symposium (NAPS 2018), North Dakota State University in Fargo, North Dakota State, USA, Sep. 9-11, 2018.
P. M. de Quevedo; J. Contreras and M. J. Rider, "Optimal Contract Pricing of a Storage Aggregator in Future Distribution Networks", Proceedings of the 15th International Conference on the European Energy Market (EEM 2018), Lódz, Poland, Jun. 27–29, 2018.
B. R. Rosado e M. J. Rider, "Optimal Restoration Switching Sequence in Smart Distribution Networks", Anais do VII Simpósio Brasileiro de Sistemas Elétricos (SBSE 2018), pp. 01–06, Niterói, Rio de Janeiro, Brasil, Maio 12–16, 2018.
J. C. López, M. J. Rider, P. L. Cavalcante, A. V. Garcia, L. L. Martins, L. F. Miranda and L. F. Silveira, "Smart Grids: Self-healing and Switch Allocation in a Real System", Proceedings of the 12th Latin-American Congress on Electricity Generation and Transmission (CLAGTEE 2017), pp. 01–09, paper 12.025, Mar del Plata, Argentina, Nov. 12–15, 2017.
L. Viola, L. C. P. da Silva, M. J. Rider, "Otimização do Armazenamento de Energia Através de Bateria e Hidrogênio em Sistemas de Distribuição", Anais do Simpósio Brasileiro de Automação Inteligente 2017 (SBAI17), pp. 01–08, Porto Alegre, Rio Grande do Sul, Oct. 1–4, 2017.
T. S. Madureira, J. C. López, P. P. Vergara, M. J. Rider and L. C. P. Silva, "Gerenciamento Ótimo de Energia em Plantas Virtuais de Geração Utilizando Programação Não-Linear", Anais do Simpósio Brasileiro de Automação Inteligente 2017 (SBAI17), pp. 01–08, Porto Alegre, Rio Grande do Sul, Oct. 1–4, 2017.
J. C. López, M. J. Rider, A. V. Garcia, P. L. Cavalcante, L. F. Miranda and L. L. Martins, "Optimization Approach for the Allocation of Remote-Controlled Switches in Real-scale Electrical Distribution Systems", IEEE International Conference on Innovative Smart Grid Technologies IEEE (ISGT Europe 2017), pp. 01–06, paper 1174, Torino, Italia, Sep. 26–29, 2017.
P. L. Cavalcante, A. V. Garcia, M. J. Rider, J. C. López, L. L. Martins, L. F. Miranda e L. F. Silveira, "Uso do Self-healing como Ferramenta para Avaliar a Condição da Rede Primária de Distribuição do Grupo CPFL", IX Congresso de Inovação Tecnológica em Energia Elétrica (IX CITENEL), pp. 01–09, João Pessoa, Paraíba, Aug. 02–04, 2017.
M. J. Delgado, M. Pourakbari-Kasmaei, and M. J. Rider, "A Branch and Bound Algorithm to Solve Nonconvex MINLP Problems via Novel Division Strategy: An Electric Power System Case Study", Proceedings of the 2017 IEEE International Conference on Environment and Electrical Engineering and 2017 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPSEurope), Milan, Italy, June 06-09, 2017.
J. A. Pinzón, P. P. Vergara, L. C. P. da Silva and M. J. Rider, "MILP Model for Optimal Management of Energy Consumption and Comfort in Smart Buildings", Eighth Conference on Innovative Smart Grid Technologies (ISGT 2017), Washington, USA, April 23-26, 2017.
L. H. Macedo, J. F. Franco, R. Romero, M. A. Ortega-Vazquez and M. J. Rider, "Increasing the Hosting Capacity for Renewable Energy in Distribution Networks", Eighth Conference on Innovative Smart Grid Technologies (ISGT 2017), Washington, USA, April 23-26, 2017.
L. L. Martins, P. L. Cavalcante, L. F. Miranda, M. J. Rider, J. C. López, A. E. Collar, L. F. Silveira and A. V. Garcia, "Solução de Self-healing Centralizada do Grupo CPFL", Anais do XXII Seminário Nacional de Distribuição de Energia Elétrica (Sendi 2016), paper 4019, pp. 01–011, Centro de Convenções, Curitiba, Brasil, Nov. 07–10, 2016.
J. N. Melchor, L. H. Macedo, J. F. Franco, M. J. Rider e R. A. Romero, "Um Novo Método para a Solução do Fluxo de Potência Ótimo AC em Sistemas de Transmissão Baseado em Programação Linear Sucessiva", XX Congresso Brasileiro de Automática 2016, pp. 01–08, Campus Universitário de Goiabeiras, UFES, Vitória, Espiritu Santo, Brazil, Oct. 3–7, 2016.
O. D. M. Dominguez, C. F. Sabillon, J. F. Franco, M. Lavorato and M. J. Rider, "Optimal Volt-VAr Control Operation for Energy Cost Reduction in Distribution Systems Considering a Voltage Dependent Load Model", Proceedings of the 2016 IEEE PES Transmission & Distribution Conference and Exposition (T&D-LA 2016), Morelia, Mexico, Sep. 21–24, 2016.
L. H. Macedo, J. F. Franco, R. Romero and M. J. Rider, "An MILP Model for the Analysis of Operation of Energy Storage Devices in Distribution Systems", Proceedings of the 2016 IEEE PES Transmission & Distribution Conference and Exposition (T&D-LA 2016), Morelia, Mexico, Sep. 21–24, 2016.
P. L. Cavalcante, J. C. López, J. F. Franco, M. J. Rider, A. V. Garcia, M. R. R. Malveira, L. L. Martins and L. C. Direito, "Centralized Self-Healing Scheme for Electrical Distribution Systems", Proceedings of the 2016 Power Engineering Society General Meeting, Boston, USA, Jul. 17-21, 2016.

C. V. Montes, L. H. Macedo, J. F. Franco, R. Romero and M. J. Rider, "Abordagem de PLIM para o Planejamento da Expansão de Sistemas de Transmissão Usando o Modelo AC", V Simpósio Brasileiro de Sistemas Elétricos (SBSE 2016), pp. 01–06, Natal, Rio Grande do Norte, Brasil, Maio 22–25, 2016.

G. P. López, J. A. Gómez and M. J. Rider, "Troubleshooting in Transmission Systems using Computational Intelligence Algorithms", Congresso Latino-Americano de Geração e Transmissão de Energia Elétrica, São José dos Campos, São Paulo, Brazil, Nov. 08-11, 2015.

F. Cerna e M. J. Rider, "Otimização do Numero de Recargas para uma Frota de Veículos Elétricos considerando Pontos de Entrega", 47o Simpósio Brasileiro de Pesquisa Operacional (XLVII SBPO 2015), pp. 1-11, Porto de Galinhas, Pernambuco, Brazil, Aug. 25-28, 2015.

C. F. Sabillon, J. F. Franco, M. J. Rider and R. Romero, "A MILP Model for Optimal Charging Coordination of Storage Devices and Electric Vehicles Considering V2G Technology", International Conference on Environment and Electrical Engineering, Rome, June 10-13, 2015.

N. Bañol, J. F. Franco, M. J. Rider, M. Lavorato and R. Romero, "Plug-In Electric Vehicle Charging Coordination in Electrical Distribution Systems Using a Tabu Search Algorithm", International Conference on Environment and Electrical Engineering, Rome, June 10-13, 2015.

C. F. Sabillon, J. F. Franco, M. J. Rider and R. Romero, "Optimal Charging Coordination of Electric Vehicles in Unbalanced Electrical Distribution System Considering Vehicle-to-Grid Technology", International Istanbul Smart Grid Congress and Fair, Istanbul, Apr. 29-30, 2015.

A. Tabares, M. Lavorato e M. J. Rider, "Uma Metaheurística GRASP Aplicada ao Problema de Planejamento da Expansão dos Sistemas de Distribuição de Energia Elétrica", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

M. N. Bañol, M. Lavorato e M. J. Rider, "Reconfiguração de Sistemas de Distribuição de Energia Elétrica Através da Metaheurística PSO", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

O. Melgar, M. Lavorato, J. F. Franco e M. J. Rider, "Planejamento da Operação de Sistemas Elétricos de Distribuição Usando Programação Cônica de Segunda Ordem Inteira Mista", Anais do XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

D. Rupolo, M. B. C. de Oliveira e M. J. Rider, "Reconfiguração Trifásica de Sistemas de Distribuição de Energia Elétrica", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

F. Cerna e M. J. Rider, "Modelo de Programação Linear Binário Misto Para o Controle Direto da Demanda Considerando Incertezas nas Unidades Consumidoras", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

L. H. F. M. Possagnolo, J. F. Franco, M. J. Rider e R. Romero, "Operação Ótima de Sistemas de Armazenamento de Energia em Smart Grids com Fontes Renováveis", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

J. C. López, M. Lavorato e M. J. Rider, "Reconfiguração de Sistemas Elétricos de Distribuição Considerando Índices de Confiabilidade", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Minas Gerais, Brazil, Set. 20–23, 2014.

J. B. Vanderlinde, R. R. Gonçalves e M. J. Rider, "Planejamento em Curto Prazo da Expansão de Sistemas de Distribuição de Energia Elétrica Usando uma Formulação Cônica Inteira Mista", XX Congresso Brasileiro de Automática 2014, Belo Horizonte, Brazil, Set. 20–23, 2014.

A. Tabares, J. F. Franco, M. Lavorato and M. J. Rider, "A Mixed-Binary Linear Formulation for the Distribution System Expansion Planning Problem", IEEE PES Transmission & Distribution Conference and Exposition, Medellin, Colombia, Sep. 10–13, 2014.

C. Sabillon and M. J. Rider, "Optimal Location of FACTS Devices for Generation Costs Reduction and Stability Enhancement", IEEE PES Transmission & Distribution Conference and Exposition, Medellin, Colombia, Sep. 10–13, 2014.

J. F. Franco, M. J. Rider and R. Romero, "An MILP Model for the Plug-In Electric Vehicle Charging Coordination Problem in Electrical Distribution Systems", 2014 Power Engineering Society General Meeting, Washington, USA, Jul. 27-31, 2014.

G. P. López, M. J. Rider e C. J. Zapata-Grisales, "Uso de uma Técnica para Detecção de Fraudes nas Redes de Distribuiçãoo de Energia Elétrica Utilizando Árvores de Decisão", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Parana, Brasil, Abril 22–25, 2014.

E. B. Puger, M. C. O. Borges, J. F. Franco e M. J. Rider, "Reconfiguração de Sistema de Distribuição Utilizando um Fluxo de Carga Não Iterativo Com Metaheurística GRASP", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Parana, Brasil, Abril 22–25, 2014.

M. A. J. Delgado e M. J. Rider, "Algoritmo Branch and Bound Não Linear para Resolver o Problema de Planejamento da Expansão de Sistemas de Transmissão", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Parana, Brasil, Abril 22–25, 2014.

M. C. dal Toé e M. J. Rider, "Modelo Binível de Preço de Contrato Ótimo Multiestágio da

Geração Distribuída em Sistemas de Distribuição Radiais de Energia Elétrica", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Parana, Brasil, Abril 22–25, 2014.
R. Romais, M. C. O. Borges and M. J. Rider, "Reconfiguração de Sistemas de Distribuição de Energia Elétrica Utilizando um Modelo de Programação Cônica de Segunda Ordem Inteira Mista", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Brasil, Abril 22–25, 2014.
P. L. Cavalcante, J. C. López, M. J. Rider, A. V. Garcia, M. R. R. Malveira, L. L. Martins e L. C. Direito, "Reconfiguração de uma Rede Elétrica de Distribuição Subterrânea com Atendimento de Cargas Prioritárias", V Simpósio Brasileiro de Sistemas Elétricos, Foz de Iguaçu, Brasil, Abril 22–25, 2014.
J. H. A. Gamarra and M. J. Rider, "Un Modelo para la Expansión Óptima del Sistema de Transmisión Eléctrico Peruano", XI Seminario Internacional en Optimización y Áreas Afines, Lima, Perú, Oct. 07-11, 2013.
J. F. Franco, M. Sanchez, M. J. Rider and R. Romero, "Un Modelo de Optimización No Lineal para el Problema de la Recarga de Vehículos Eléctricos Híbridos en Sistemas de Distribución", X Congreso Latinoamericano de Generación y Transporte de Energía Eléctrica, Viña del Mar, Chile, Oct. 06-09, 2013.
E. T. A. Ribeiro e M. J. Rider, "Aplicação de Programação Cônica de Segunda Ordem Inteira Mista para a Alocação Ótima de Bancos de Capacitores em Sistemas de Distribuição de Energia Elétrica Radiais", 11º Simposio Argentino de Investigación Operativa, pp. 15-29, Córdoba, Argentina, Sep. 16-20, 2013.
M. C. dal Toé e M. J. Rider, "Preço de Contrato Ótimo da Geração Distribuída em Sistemas de Distribuição Radiais de Energia Elétrica", 11º Simposio Argentino de Investigación Operativa, pp. 126-139, Córdoba, Argentina, Sep. 16-20, 2013.
E. F. da Silva, A. Resende e M. J. Rider, "Planejamento da Expansão da Rede de Transmissão Multiestágio com Cenários e Restrições de Segurança", 45o Simpósio Brasileiro de Pesquisa Operacional, Rio Grande do Norte, Natal, Brazil, Sep. 16-19, 2013.
F. V. Cerna e M. J. Rider, "Automação do Despacho Dinâmico de Viaturas para o Atendimento das Ordens de Serviços nas Redes de Distribuição de Energia Elétrica", 45o Simpósio Brasileiro de Pesquisa Operacional, Rio Grande do Norte, Brazil, Sep. 16-19, 2013.
E. B. Puger, M. C. O. Borges e M. J. Rider, "Fluxo de Carga Não-Iterativo para a Análise de Sistemas de Distribuição de Energia Elétrica Radiais e Malhados", 45o Simpósio Brasileiro de Pesquisa Operacional, Rio Grande do Norte, Natal, Brazil, Sep. 16-19, 2013.
D. Tejada, J. M. López-Lezama and M. J. Rider, "Transmission Expansion Planning Including Network Reconfiguration", 8th annual CIGRE Canada Conference on Power Systems, Calgary, Alberta, Canada, Sep. 9-11, 2013.
M. Pourakbari-Kasmaei, M. J. Rider and J. R. S. Mantovani, "A Novel Straightforward Compromising Method for Dynamic Economic and Emission Dispatch Considering Valve-Point Effect", 12th International Conference on Environment and Electrical Engineering, pp. 335–340, Wroclaw, Poland, May 5-8 2013.
M. A. J. Delgado, M. Pourakbari-Kasmaei, M. J. Rider, "A Modified Branch and Bound Algorithm to Solve the Transmission Expansion Planning Problem", 13th International Conference on Environment and Electrical Engineering, Wroclaw, Poland, May 5-8 2013.
M. Pourakbari-Kasmaei, M. J. Rider and J. R. S. Mantovani, "An Environmental Constrained Active-Reactive OPF to Consider The Congestion Effect on Consumers Allocated Cost and System Emission", 2013 Innovations in Energy, Power and Electrical Machines, Istanbul, Turkey, Set. 5-7 2013.
M. Pourakbari-Kasmaei, M. J. Rider and J. R. S. Mantovani, "Congestion Effects on Regional & System Emission and Consumers Allocated Cost", 3rd International Conference on Electric Power and Energy Conversion Systems, Istanbul, Turkey, Oct. 2-4 2013.
P. L. Cavalcante, J. F. Franco, M. J. Rider, A. V. Garcia, L. L. Martins, M. R. R. Malveira, R. J. Franco, P. F. S. Carvalho, D. S. Guimarães and L. J. Hernandes Junior, "Advanced Network Reconfiguration System Applied to CEMIG-D System", 2013 IEEE PES Conference on Innovative Smart Grid Technologies Latin America, São Paulo, Brasil, Apr. 15–17, 2013.
H. A. Ruiz, M. J. Rider e J. R. S. Mantovani, "Fluxo de Carga Trifásico de Baran-Wu para Propósitos de Estimação de Estado em Sistemas de Distribuição de Energia Radiais Desequilibrados", Anais do Congresso Brasileiro de Automática 2012, pp. 3422–3429, Campina Grande, Paraíba, Brazil, Set. 02–06, 2012.
J. F. Franco, M. J. Rider e R. Romero, "Modelo de Programação Linear Inteira Mista Estocástica para o Problema da Expansão Ótima de Subestações de Sistemas de Distribuição de Energia Elétrica", Anais do Congresso Brasileiro de Automática 2012, pp. 3415–3421, Campina Grande, Paraíba, Brazil, Set. 02–06, 2012.
R. R. Gonçalves, R. P. Alves e M. J. Rider, "Um Modelo Linear Inteiro Misto para o

Planejamento da Operação de Redes de Distribuição de Energia Elétrica", Anais do Congresso Brasileiro de Automática 2012, paper 99071, pp. 1529–1536, Centro de Convenções Raymundo Asfora, Hotel Garden, Campina Grande, Paraíba, Brazil, Set. 02–06, 2012.
E. F. da Silva, M. Rahmani e M. J. Rider, "Planejamento da Expansão do Sistema de Transmissão Cosiderando Restrições de Segurança", Anais do Congresso Brasileiro de Automática 2012, paper 98744, pp. 5369–5375, Centro de Convenções Raymundo Asfora, Hotel Garden, Campina Grande, Paraíba, Brazil, Set. 02–06, 2012.
J. de Sousa, M. J. Rider e J. R. S. Mantovani, "Alocação e Operação de Chaves em Sistemas de Distribuição de Energia Elétrica Utilizando um Modelo de Programação Linear Inteira Mista", Anais do Congresso Brasileiro de Automática 2012, pp. 265–271, Centro de Convenções Raymundo Asfora, Hotel Garden, Campina Grande, Paraíba, Brazil, Set. 02–06, 2012.
J. F. Franco, M. Lavorato, M. J. Rider and R. Romero, "An Efficient Implementation of Tabu Search in Feeder Reconfiguration of Distribution Systems", Proceedings of the 2012 Power Engineering Society General Meeting, paper PGM- 2012GM0915, pp. 01–08, doi: 10.1109/PESGM.2012.6345048, San Diego, California, USA, July 22-26, 2012.
F. J. L. Pádua, R. Romero and M. J. Rider, "Alocação de Dispositivos PLC Numa Rede de Distribuição Elétrica de Baixa Tensão Usando Programação Linear Inteira Mista", Anais do IV Simpósio Brasileiro de Sistemas Elétricos, pp. 01–06, Goiânia, Goiás, Brasil, Maio 15–18, 2012.
M. Paredes, M. J. Rider and R. Romero, "Metodologia para o Planejamento da Operação de Sistemas Hidrotérmicos de Longo Prazo", Anais do IV Simpósio Brasileiro de Sistemas Elétricos (SBSE 2012), paper 96743, pp. 01–06, Goiânia, Goiás, Brasil, Maio 15–18, 2012.
M. Lavorato, M. J. Rider, J. F. Franco and R. Romero, "Reconfiguração de Sistemas de Distribuição de Energia Elétrica Utilizando um Algoritmo Banch-and-Bound Não Linear", Anais do IV Simpósio Brasileiro de Sistemas Elétricos, pp. 01–06, Goiânia, Brasil, Maio 15–18, 2012.
H. A. Ruiz, M. J. Rider e J. R. S. Mantovani, "Estimação de Estado nos Sistemas de Distribuição de Energia Elétrica Baseada num Método de Fluxo de Carga de Varredura", Anais do IV Simpósio Brasileiro de Sistemas Elétricos, Goiânia, Goiás, Brasil, Maio 15–18, 2012.
J. de Sousa, A. M. Cossi, M. J. Rider e J. R. S. Mantovani, "Técnica Heurística para o Planejamento de Sistemas de Distribuição de Energia Elétrica Considerando a Confiabilidade da Rede", IV Simpósio Brasileiro de Sistemas Elétricos, Goiânia, Goiás, Brasil, Maio 15–18, 2012.
R. P. Alves, J. F. Franco e M. J. Rider, "Localização Ótima de Reguladores de Tensão em Sistemas de Distribuição de Energia Elétrica Usando uma Formulação Linear Inteira Mista", IV Simpósio Brasileiro de Sistemas Elétricos, Goiânia, Goiás, Brasil, Maio 15–18, 2012.
M. Rahmani, R. Romero, M. J. Rider and M. Paredes, "Domain Reduction Using GRASP Construction Phase for Transmission Expansion Planning Problem", 12th European Conference on Evolutionary Computation in Combinatorial Optimization, pp. 87–98, Malaga, España, 2012.
M. Utida, R. Romero e M. J. Rider, "Uma heurística eficiente aplicada ao problema de carregamento de contêiner", Anais do IX Congreso del Instituto Chileno de Investigación Operativa (OPTIMA2011), paper 15, pp. 1-15, Pucón, Chile, Oct. 26-29, 2011.
J. F. Franco, M. J. Rider, M. Lavorato and R. Romero, "Optimal Allocation of Capacitors in Radial Distribution Systems with Distributed Generation", IEEE PES Conference on Innovative Smart Grid Technologies Latin America, pp. 1-6, Medellin, Colombia, Oct. 19-21, 2011.
J. F. Franco, M. J. Rider, M. Lavorato and R. Romero, "A Set of Linear Equations to Calculate the Steady – State Operation of an Electrical Distribution System", IEEE PES Conference on Innovative Smart Grid Technologies Latin America, Medellin, Colombia, Oct. 19-21, 2011.
J. M. López-Lezama, J. Contreras, A. Padilha-Feltrin and M. J. Rider, "Location and Contract Pricing Evaluation of Distributed Generation Under a Competitive Framework", 17th Power Systems Computation Conference, Paper ID: 94, pp. 1-8, Stockholm, Sweden, Aug. 22–26, 2011.
J. de Sousa, M. J. Rider e J. R. S. Mantovani, "Planejamento de Sistemas de Distribuição de Energia Elétrica Através de um Modelo de Otimização Clássica", 43o Simpósio Brasileiro de Pesquisa Operacional, pp. 791-802, Ubatuba, São Paulo, Brazil, Aug. 15-18, 2011.
R. F. Souza, M. Lavorato, R. Romero e M. J. Rider, "Metaheurística VNS para o Problema de Planejamento da Expansão de Sistemas de Distribuição de Energia Elétrica", 43o Simpósio Brasileiro de Pesquisa Operacional, pp. 1630-1641, Ubatuba, Brazil, Aug. 15-18, 2011.
J. F. Franco, M. J. Rider and R. Romero, "Un Modelo Linear Entero Mixto para la Selección Óptima de Conductores y Reconductoramiento", XVIII Congreso Internacional de Ingeniería Eléctrica, Electrónica y de Ramas Afines, Universidad Nacional de Ingeniería, Reference: P-079, pp. 1-6, Lima, Perú, 8-13 de Agosto 2011.
M. Granada, M. J. Rider and J. R. S. Mantovani, "Mathematical Decomposition Technique Applied to the Probabilistic Power Flow Problem", Proceedings of the IEEE/PES Tranmission & Distribution 2010 Latin América, pp. 139-146, São Paulo, Brazil, Nov. 08–10, 2010.
M. Lavorato, M. J. Rider, A. V. Garcia e R. Romero, "Planejamento da Expansão do Sistema de

Distribuição Considerando Alocação Ótima de Bancos de Capacitores", Congresso Brasileiro de Automática 2010, pp. 4545–4552, Bonito, Mato Grosso do Sul, Brazil, Set. 12–16, 2010.
M. Granada, M. J. Rider, J. R. S. Mantovani and M. Shahidehpour, "Decentralized AC Power Flow for Real-time Multi-TSO Power System Operation", 2010 Power Engineering Society General Meeting, pp. 01–07, Minneapolis, Minnesota, USA, July 25-29, 2010.
M. Lavorato, M. J. Rider, A. V. Garcia e R. Romero, "Planejamento da Expansão de Sistemas de Distribuição Utilizando um Algoritmo Branch and Bound Não Linear", III Simpósio Brasileiro de Sistemas Elétricos, pp. 01–06, Belém, Pará, Brasil, Maio 18–21, 2010.
F. J. Heredia, M. J. Rider and C. Corchero, "Optimal Bidding Strategies for Thermal and Combined Cycle Units in the Day-ahead Electricity Market with Bilateral Contracts", 2009 Power Engineering Society General Meeting, pp. 01–06, Alberta, Canada, July 26–30, 2009.
M. Lavorato, M. J. Rider, A. V. Garcia and R. Romero, "Distribution Network Planning Using a Constructive Heuristic Algorithm", 2009 Power Engineering Society General Meeting, paper PGM-09GM0450, pp. 01–06, Calgary, Alberta, Canada, July 26–30, 2009.
M. F. Bedriñana, M. J. Rider and C. A. Castro, "Ill-conditioned Optimal Power Flow Solutions and Performance of Non-Linear Programming Solvers", International Conference 2009 IEEE Bucharest PowerTech, paper 658, pp. 01–07, Bucharest, Romania, 28 Jun–2 Jul, 2009.
L. A. Gallego, M. J. Rider, R. Romero and A. V. Garcia, "A Specialized Genetic Algorithm to Solve the Short Term Transmission Network Expansion Planning", International Conference 2009 IEEE Bucharest PowerTech, paper 34, pp. 01–07, Bucharest, Romania, 28 Jun–2 Jul, 2009.
M. Granada, M. J. Rider, J. R. S. Mantovani and M. Shahidehpour, "Multi-areas optimal reactive power flow", 2008 IEEE/PES Transmission and Distribution Conference and Exhibition: Latin America (T&D LA 2008), pp. 1–6, Bogota, Colombia, August 13–15, 2008.
M. Lavorato, M. J. Rider and A. V. Garcia, "Power System State Estimation: A New Method Based on Current Equations", IEEE 2007 Large Engineering Systems Conference on Power Engineering, paper TCC 5, pp. 166–170, Montreal, Quebec, Canada, Oct. 10–12, 2007.
A. T. Azevedo, A. R. L. Oliveira, M. J. Rider and S. Soares Filho, "Optimal Active Power Flow Model Incorporating Facts Devices", International Conference on Operational Research for Development, pp. 310–321, Fortaleza, Ceara, Brazil, Aug. 29–31, 2007.
M. J. Rider, A. V. Garcia and R. Romero, "Branch and Bound Algorithm for Transmission Network Expansion Planning Using the DC model", International Conference 2007 IEEE Lausanne PowerTech, paper 38, pp. 1350–1355, Lausanne, Switzerland, Jul. 01–05, 2007.
M. J. Rider, L. A. Gallego, R. Romero and A. V. Garcia, "A Heuristic Algorithm to Solve the Short Term Transmission Network Expansion Planning", 2007 Power Engineering Society General Meeting, paper PES-07GM0368, pp. 01–07, Tampa, Florida, USA, June 24–28, 2007.
C. R. Nugoli, M. J. Rider e J. R. S. Mantovani, "Planejamento de Reativos em Sistemas de Energia Elétrica Utilizando um Algoritmo Branch-and-Bound e Métodos de Pontos Interiores", Congresso Brasileiro de Automática, pp. 2057–2062, Salvador (BA), Brazil, Oct. 03–06, 2006.
R. Romero, M. J. Rider e I. J. Silva, "Uma Metaheurística Eficiente Para a Otimização de Problemas Complexos em Sistemas de Potência", Congresso Brasileiro de Automática, paper 122, pp. 423–428, Universidade Federal da Bahia, Salvador (BA), Brazil, Oct. 03–06, 2006.
C. R. Nugoli, M. J. Rider e J. R. S. Mantovani, "Algoritmo de Branch-And-Bound Não Linear para Problemas de Planejamento de Reativos em Sistemas de Energia Elétrica", Simpósio Brasileiro de Pesquisa Operacional, paper 20771, Goiânia (GO), Brazil, Set. 12–15, 2006.
I. J. Silva, M. J. Rider, R. Romero and C. A. Murari, "Genetic Algorithm of Chu and Beasley for Static and Multistage Transmission Expansion Planning", 2006 Power Engineering Society General Meeting, paper 06GM0560, pp. 01–07, Montreal, Quebec, Canada, June 18-22, 2006.
M. J. Rider, A. V. Garcia and R. Romero, "Branch and Bound Algorithm for Transmission Network Expansion Planning Using the DC model", X Symposium of Specialists in Electric Operational and Expansion Planning, Florianópolis (SC), Brazil, May. 21–25, 2006.
I. J. Silva, M. J. Rider, R. Romero, A. V. Garcia e C. A. Murari, "Algoritmo Genético de Chu-Beasley para o Problema de Planejamento da Expansão da Transmissão", VII Simpósio Brasileiro de Automação Inteligente, paper 9479, pp. 01–07, São Luís, Maranhão, Set. 19–23, 2005.
H. H. Müller, M. J. Rider, C. A. Castro e V. L. Paucar, "Cálculo de Fluxo de Carga por Redes Neurais Artificiais", VII Simpósio Brasileiro de Automação Inteligente, paper 10220, pp. 01–07, São Luís, Maranhão, Set. 19–23, 2005.
M. J. Rider, R. M. Moreno, V. L. Paucar y A. V. Garcia, "Flujo de potencia óptimo considerando Controladores FACTS para sistemas eléctricos de potencia", XVI Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, paper A117, pp. 01–11, Lima, Perú, 05–09 de Setiembre, 2005.
M. J. Rider, I. J. Silva, R. Romero, A. V. Garcia and C. A. Murari, "Transmission Network

Expansion Planning in Full Open Market Considering Security Constraints", International Conference IEEE St. Petersburg PowerTech, St. Petersburg, Russia, Jun. 27–30, 2005.
H. H. Müller, M. J. Rider, C. A. Castro and V. L. Paucar, "Power Flow Model Based on Artificial Neural Networks", International Conference 2005 IEEE St. Petersburg PowerTech, paper 382, pp. 01–06, St. Petersburg, Russia, Jun. 27–30, 2005.
I. J. Silva, M. J. Rider, R. Romero and C. A. Murari, "Transmission Network Expansion Planning Considering Uncertainness in Demand", 2005 Power Engineering Society General Meeting, pp. 1424–1429, San Francisco, California, USA, Jun. 12–16, 2005.
M. J. Rider, A. V. Garcia e R. Romero, "Um Algoritmo Heurístico Construtivo para o Planejamento a Curto Prazo da Expansão de Redes de Transmissão", Congresso Brasileiro de Automática 2004, paper 505, Gramado (RS), Brazil, Set. 21–24, 2004.
M. J. Rider, C. A. Castro, M. F. Bedriñana e A. V. Garcia, "Um Método de Pontos Interiores para Aplicações em Otimização de Sistemas de Potência", Congresso Brasileiro de Automática 2004, paper 574, Gramado (RS), Brazil, Set. 21–24, 2004.
V. L. Paucar, O. S. de Sousa Jr., I. O. Almeida, M. J. Rider, M. F. Bedriñana and J. H. Santos, "Software Development with Compute Graphics, Distributed Data Base and OOP for Deregulated Power Systems Analysis", IEEE 2004 Large Engineering Systems Conference on Power Engineering, paper FP 4.2, pp. 198–202, Nova Scotian, Canada, Jul. 28–31, 2004.
M. J. Rider, A. V. Garcia and R. Romero, "A Constructive Heuristic Algorithm to Short Term Transmission Network Expansion Planning", 2004 Power Engineering Society General Meeting, pp. 2107–2113, Denver, Colorado, USA, Jun. 6–10, 2004.
M. J. Rider, A. V. Garcia and R. Romero, "Short Term Transmission Network Expansion Planning Using an Interior Points Method", IX Symposium of Specialists in Electric Operational and Expansion Planning, paper SP–072, pp. 1–6, Rio de Janeiro (RJ), Brazil, May. 23–27, 2004.
I. Sánchez, R. Romero, M. J. Rider and A. V. Garcia, "Analysis of the Use of Interior Points in the Long Term Transmission Network Expansion Planning", IX Symposium of Specialists in Electric Operational and Expansion Planning, paper SP–073, Brazil, May. 23–27, 2004.
M. J. Rider, V. L. Paucar, A. V. Garcia y M. F. Bedriñana, "Flujo de Potencia Óptimo Usando un Método de Puntos Interiores para Sistemas Eléctricos de Potencia", XV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, Lima, Perú, 27–31 de Octubre, 2003.
M. J. Rider, V. L. Paucar, A. V. Garcia y M. F. Bedriñana, "Minimización del Corte de Carga en Sistemas de Potencia Mediante un Método de Optimización de Puntos Interiores", XV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, Lima, Perú, 27–31 de Octubre, 2003.
M. J. Rider, V. L. Paucar, A. V. Garcia and M. F. Bedriñana, "A Higher Order Interior Point Method to Minimize Active Power Loss in Electric Energy Systems", IEEE Large Engineering Systems Conference on Power Engineering, pp. 189–193, Montreal, Canada, May. 07–09, 2003.
J. E. O. Pessanha, V. L. Paucar and M. J. Rider, "A Review of Power System Voltage and Angular Stability Dynamics", IEEE–PES/CSEE International Conference on Power System Technology, vol. 3, pp. 1669–1673, Kunming, China, Oct. 13–17, 2002.
V. L. Paucar and M. J. Rider, "Aspects of the generation and transmission services in the Peruvian power system under deregulation", 14th Power Systems Computation Conference, session 23, paper 5, pp. 1–6, Sevilla, Spain, Jun. 24–28, 2002.
M. J. Rider e V. L. Paucar, "Aspects of the Competitive Electric Market of the Reactive Power", VIII Symposium of Specialists in Electric Operational and Expansion Planning, paper IP–134, pp. 1–6, Brasilia (DF), Brazil, May. 19–23, 2002.
J. C. Mendes, V. L. Paucar, M. J. Rider, O. R. Saavedra y J. R. Gomes, "Pre–despacho Económico Utilizando Relajación de Lagrange y Estrategias Evolutivas en Ambiente de Procesamiento Paralelo Distribuído", XIV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, paper 121, pp. 1–10, Lima, Perú, 10–13 de Octubre, 2001.
V. L. Paucar, J. E. O. Pessanha y M. J. Rider, "Análisis en el Dominio del Tiempo de los Mecanismos Inherentes al Fenómeno de Estabilidad de Tensión en Sistemas Eléctricos de Potencia", XIV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, paper 120, pp. 1–10, Lima, Perú, 10–13 de Octubre, 2001.
V. L. Paucar y M. J. Rider, "Equivalentes Externos para Análisis de Seguridad de Sistemas de Potencia Interconectados", XIV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, paper 118, pp. 1–10, Lima, Perú, 10–13 de Octubre, 2001.
V. L. Paucar, M. J. Rider y O. R. Saavedra, "Técnicas de Inteligencia Artificial para el Planeamiento y Operación de Sistemas de Potencia", XIV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines, paper 117, pp. 1–10, Lima, Perú, 10–13 de Octubre, 2001.
V. L. Paucar and M. J. Rider, "On the Congestion Problems and Transmission Services in the Peruvian Power System Under Deregulation", International Conference 2001 IEEE Porto

PowerTech, paper POM6–387, pp. 1–6, Porto, Portugal, Sep. 10–13, 2001.
V. L. Paucar and M. J. Rider, "Reactive Power Pricing in Deregulated Electrical Markets Using a Methodology Based on the Theory of Marginal Costs", IEEE Large Engineering Systems Conference on Power Engineering, pp. 7–11, Nova Scotia, Canada, Jul. 11–13, 2001.
V. L. Paucar and M. J. Rider, "On the Use of Artificial Neural Networks for Enhanced Convergence of the Load Flow Problem in Power Systems", IEEE International Conference on Intelligent Systems Applications to Power Systems, Budapest, Hungary, Jun. 18–21, 2001.
V. L. Paucar, M. J. Rider and A. L. Morelato, "Back–Propagation with Teacher Forcing to Train Neural Networks for Identification and Simulation of Non–Linear Dynamic Systems", IEEE International Conference on Intelligent Systems Applications to Power Systems, pp. 107–112, Budapest, Hungary, Jun. 18–21, 2001.
M. J. Rider e V. L. Paucar, "Aspectos do Pagamento dos Serviços de Transmissão no Sistema Interligado Peruano Sob um Mercado Desregulado", IX Encontro Regional Latino–Americano da Cigré, paper IX/PR–37.09, pp. 1–6, Foz do Iguaçu, Paraná, Brasil, Maio 27–31, 2001.
V. L. Paucar e M. J. Rider, "Aplicação de Redes Neurais Artificiais na Previsão da Geração de Energia Elétrica no Sistema Interligado Sul Peruano", IX Encontro Regional Latino–Americano da Cigré, paper IX/PR–38.06, pp. 1–5, Foz do Iguaçu, Paraná, Brasil, Maio 27–31, 2001.
V. L. Paucar, M. J. Rider, A. L. Morelato e E. B. Vuono, "Identificação de Sistemas Dinâmicos não Lineares Usando Back–Propagation com Teacher Forcing", V Congresso Brasileiro de Redes Neurais (5to CBRN), pp. 385–390, Rio de Janeiro, Brasil, Abril 2–5, 2001.
V. L. Paucar and M. J. Rider, "Exploring the Application of Artificial Neural Networks for Solving the Non linear Power Flow Problem in Electrical Energy Systems", International Conference IBERAMIA 2000, pp. 324–334, Atibaia, São Paulo, Brazil, Nov. 19–22, 2000.
V. L. Paucar and M. J. Rider, "Efficient Power Flow Problem Initialization Using Artificial Neural Networks", IEEE 2000 Large Engineering Systems Conference on Power Engineering (LESCOPE 2000), pp. 119–123, Nova Scotia, Canada, Jul. 23–26, 2000.
V. L. Paucar, M. J. Rider and J. Koc, "On the Payment of Electrical Transmission Services in the Deregulated Peruvian Power System", IEEE 2000 Large Engineering Systems Conference on Power Engineering (LESCOPE 2000), pp. 70–74, Nova Scotia, Canada, Jul. 23–26, 2000.

1 Reports

F. J. Heredia, **M. J. Rider** and C. Corchero, "A Stochastic Programming Model for the Optimal Electricity Market Bid Problem with Bilateral Contracts for Thermal and Combined Cycle Units", *Technical Report*, Technical University of Catalonia, Oct. 2008.

Citations

MyPublons – Total of articles: 153, Total of citations: 3859, Factor-H: 37.
MyScopus – Total of articles: 171, Total of citations: 5067, Factor-H: 41.
MyGoogleCitations – Total of articles: 265, Total of citations: 7525, Factor-H: 46.

Scientific Journal Referee

IEEE Transactions on Power Systems
IEEE Transactions on Power Delivery
IEE Proceedings. Generation, Transmission & Distribution
IET Generation, Transmission & Distribution
International Journal of Electrical Power & Energy Systems
Simulation Modelling Practice and Theory
Information Sciences
Energy Conversion and Management
Electric Power Systems Research
International Journal of Engineering, Science and Technology
Electric Power Components and Systems
Renewable & Sustainable Energy Reviews
Journal of Control, Automation and Electrical Systems
International Transactions on Electrical Energy Systems
Journal of Electrical and Electronics Engineering Research
Soft Computing
Trends in Applied and Computational Mathematics
Engineering Applications of Artificial Intelligence.

18 Participation in Events

2021 – Jornadas del Conocimiento ISA.
2020 – VIII Simpósio Brasileiro de Sistemas Elétricos.
2019 – Fourth annual NESTNet Week, Ryerson University, Toronto, CA.
2019 – Jornadas del Conocimiento ISA.
2018 – IEEE PES Transmission & Distribution Latin America Conference and Exposition.

2017 – Jornadas del Conocimiento ISA.
2017 – XXIV Congreso Internacional de Ingeniería Eléctrica, Electrónica y Computación.
2015 – Jornadas del Conocimiento ISA
2013 – Power Engineering Society General Meeting.
2012 – IV Simpósio Brasileiro de Sistemas Elétricos.
2011 – IEEE PES Conference on Innovative Smart Grid Technologies Latin America.
2009 – Power Engineering Society General Meeting.
2008 – International Conference on Applied Mathematical Programming and Modelling.
2006 – Power Engineering Society General Meeting.
2004 – Brazilian Automation Congress.
2004 – IX Symposium of Specialists in Electric Operational and Expansion Planning.
2002 – VIII Symposium of Specialists in Electric Operational and Expansion Planning.
2001 – XIV Congreso Nacional de Ingeniería Mecánica, Eléctrica y Ramas Afines.

LINKS

CV Lattes – http://lattes.cnpq.br/5624414419867021
MyPublons (Web of Science) – http://www.researcherid.com/rid/f-6726-2010
MyScopus (Scopus) – https://www.scopus.com/authid/detail.uri?authorId=56116349600
MyGoogleCitations (Google Scholar) – https://scholar.google.com.br/citations?user=mfvjbn4AAAAJ&hl=pt-BR&oi=ao
MyBVFapesp (FAPESP) – https://bv.fapesp.br/pt/pesquisador/34598/
Orcid – https://orcid.org/0000-0001-5484-1161