

SAVU C. SAVULESCU

List of Publications

Books

1. *Real Time Stability in Power Systems. Techniques for Early Detection of Blackouts* (Editor), Second Edition, Springer, 2014, New York, NY
2. *Real-Time Stability Assessment in Modern Power System Control Centers* (Editor), John Wiley & IEEE Press, 2009, New York, NY
3. *Real Time Stability in Power Systems. Techniques for Early detection of Blackouts* (Editor), Springer, 2006, Norwell MA
4. *Graphs, Digraphs and Electrical Networks. Applications to Operations Research* -- originally published in Portuguese language with the title Grafos, Dígrafos e Redes Eléctricas. Aplicações na Pesquisa Operacional by the Editora IBEC, 1981, São Paulo, S.P., Brazil. Translated in Romanian language and published with the title Grafuri si Rețele Electrice by the Editura Tehnica, 1994, Bucharest, Romania.
5. *Computerized Operation of Power Systems* (Editor), ELSEVIER Scientific Publishing Company, 1976, Amsterdam, The Netherlands
9. *A Brief History of the Contingency Analysis Tool in Control Centers* -- Chapter 1 in "Real-time Contingency Analysis Report", Report PRS-85 prepared by the Task Force on Real-time Contingency Analysis, Power System Operation, Planning and Economics (PSOPE) Committee, Bulk Power System Operations Subcommittee, available from IEEE PES in February, 2021
10. *Fast Computation of the Steady-State Stability Limit*, Chapter 2 in "Real Time Stability in Power Systems" second edition, Springer, New York, 2014
11. *Practical Aspects of Steady-State Stability Assessment in Real-Time* (co-author), Chapter 3 in "Real Time Stability in Power Systems" second edition, Springer, New York, 2014
12. *Visualizing the Risk of Blackout in Smart Transmission Grids* (co-author), paper presented at CIGRE International Symposium "Smart Grids: Next Generation Grids for New Energy Trends", Lisbon, Portugal, April 2013
13. *Early Detection and Mitigation of the Risk of Blackout* (co-author) – paper presented at CIGRE International Symposium "The Electric Power System of the Future - Integrating Supergrids and Microgrids in Transmission Grid Operation ", Bologna, Italy, September 13-15, 2011

EPRI Reports

6. *Power System Steady-State Stability Monitor Prototype* -- EPRI TR-100799, Vol. 1 and Vol. 2, Project 2473-43 Phase One, Final Report, July 1992, Palo Alto, California, U.S.A.
7. *Power System Steady-State Stability Monitor* -- EPRI TR-103169, Vol. 1, Vol. 2, Vol. 3 and Vol. 4, Project RP2473-43, Final Report, December 1993, Palo Alto, California, U.S.A.
14. *Backup Control Center Design and Implementation Criteria* -- paper SGM-2011GM0351 presented at the IEEE PES General Meeting 2011, Detroit, MI, July 24-29, 2011
15. *Half a Century of Computer Methods in Power System Analysis, Planning and Operations. Part II: Glenn W. Stagg and His Contributions to Advancing the Technology* (co-author) -- paper PSE-11 PSCE0208 presented at the IEEE Power Systems Conference & Expo PSCE'11, Phoenix, AZ, March 20-24, 2011

IEEE, CIGRE, IFAC, PSCC and Pennwell Papers. Chapters in Edited Books and IEEE Reports

8. *Overview of Security Assessment for Grid Operations* – Chapter 1 in "Use of Voltage Stability Assessment and Transient Stability Assessment Tools in Grid Operations", in Nuthalapati, S. (Editor), Springer, 2021
16. *Cálculo On-Line de Límites de Estabilidad Estática de Grandes Redes Eléctricas Mediante el Programa QuickStab*, paper presented at CIGRE, 13th Regional Ibero-American Meeting, Puerto Iguazú, Argentina - May 19-20, 2009

17. *Summary Overview of Stability Concepts Applied for Real-Time Operations*, paper PSE-09PSCE0657 presented at IEEE Power Systems Conference & Expo 2009 PSCE'09, Seattle, WA, March 15-18, 2009
18. *The Real-Time and Study-Mode Data Environment in Modern SCADA/EMS*, in "Real-Time Stability Assessment in Modern Power System Control Centers" (co-author) pp. 1-22, John Wiley & Sons and IEEE Press, New York, NY, USA, 2009
19. *Overview of Key Stability Concepts Applied for Real-Time Operations*, in "Real-Time Stability Assessment in Modern Power System Control Centers", pp. 23-44, John Wiley & Sons and IEEE Press, New York, NY, USA, 2009
20. *Dimo's Approach to Steady-State Stability Assessment: Methodology Overview and Algorithm Validation* (co-author), in "Real-Time Stability Assessment in Modern Power System Control Centers", pp. 320-353, John Wiley & Sons and IEEE Press, New York, NY, USA, 2009
21. *Detection and Evaluation of Stability Constrained Transmission Paths* (co-author), in "Real-Time Stability Assessment in Modern Power System Control Centers", pp. 401-414, John Wiley & Sons and IEEE Press, New York, NY, USA, 2009
22. *Fast Assessment of the Distance to Instability. Theory and Implementation*, Chapter 2 in "Real Time Stability in Power Systems", pp. 31-64, Springer Verlag, Norwell, MA, 2006
23. *Real-Time Calculation of Power System Loadability Limits* (co-author), Powertech 2007 Conference, Lausanne, Switzerland, July 2007
24. *Real-Time System Stability Monitoring in the Transmission Network of Bosnia and Herzegovina* (co-author), Pennwell Conference PowerGrid Europe 2007, 26-28 June 2007, Madrid, Spain
25. *Real-Time Stability Monitoring at Transelectrica* (co-author), paper PSCE06-1288, IEEE PSCE 2006, Atlanta, GA, October 29 - November 2, 2006
26. *A Metric for Quantifying the Risk of Blackout*, paper 04PS0294, IEEE PSCE 2004, 10 - 13 October 2004, New York, New York
27. *Real-Time Detection of the Risk of Blackout*, paper 04GM0484, IEEE PES General Meeting 2004, Denver CO, June 9, 2004
28. *Solving Open Access Transmission and Security Analysis Problems with the Short-Circuit Currents Method*, presented at Pennwell Latin America Power 2002 Conference, Controlling and Automating Energy Session, August 27, 2002, Monterrey, Mexico
29. *Integrated Information Architecture for the Operation of Electric Markets*, Keynote Address at Pennwell Latin America Power 2000 Conference, July 20-24, 2000, Caracas, Venezuela
30. *Computation of the Maximum Loadability of a Power System for Open Access Transmission Applications*, presented at Pennwell Latin America Power '98, June 23-26, 1998, Buenos Aires, Argentina
31. *Computation of Parallel Flows and the Total and Available Transfer Capability* (co-author), IEEE PICA'97 Tutorial "Open Access Transmission Impacts on Energy Pricing, Scheduling and Control", Columbus, Ohio, May, 1997
32. *Predicting Steady-State Instability*, IEEE Computer Applications in Power, CAP-M, Vol. 7, No. 3, July 1994, pp. 10-15
33. *External Network Modeling -- Recent Practical Experience* (co-author), IEEE Transactions on Power Systems, Volume 9-PWRS, No. 1, February 1994, pp. 216-228
34. *Voltage and Steady-State Stability Analysis for Real-Time and Operations Planning*, CIGRE Workshop on Electric Power System Automation, April 4-7, 1994, Curitiba, Brazil
35. *Fast Steady-State Stability Assessment for Real-Time and Operations Planning* (co-author), IEEE Transactions on Power Systems, Volume 8-PWRS, No. 4, November 1993, pp. 1557-1569
36. *Future Role of High Level Languages in Power System Control Centers* (co-author), IEEE Transactions on Power Systems, Volume 3-PWRS, No. 3, August 1988, pp. 1206-1213
37. *Design and Testing Criteria for Power System Equivalents Programs*, IFAC Symposium on Electric Energy Systems, July 22-25, 1985, Rio de Janeiro, Brazil, published in *Planning and Operation of Electric Energy Systems*, Pergamon Press, Oxford, England, 1986
38. *The Hierarchical Supervision and Control System of Companhia Energetica de Sao Paulo* (co-

- author), Paper 81 SC 02, CIGRE Study Committee 32, System Operation and Control, September 1981, Rio de Janeiro, Brazil
39. *Equivalents for Security Analysis of Power Systems*, IEEE Trans. on Pow. App. and Systems, vol. PAS-100, No. 5, May 1981, pp. 2672-2682
 40. *A Class of Topological Equivalents for Power Systems*, Power Systems Computation Conference - PSCC 1978, Dortmund, Germany
 41. *An On-Line Topological Equivalent of a Power System* (co-author), IEEE Trans. on Pow. App. and Systems, vol. PAS-97, No. 5, Sept./Oct. 1978, pp. 1550-1563
 42. *Criteria for the Selection of Essential Nodes in Equivalents of Electric Power Systems* (co-author), Paper A 77 557-2 IEEE PES Summer Meeting 1977, Mexico City, Mexico
 43. *A Network Equivalent for Security Analysis in the Computerized Operation of Power Systems* (co-author), IFAC Symposium on Electric Energy Systems, February 1977, Melbourne, Australia
 44. *Computerized Operation of Power Systems* (co-author), IFAC Symposium on Electric Energy Systems, February 1977, Melbourne, Australia
 45. *Qualitative Indices for the System Voltage and Reactive Power Control*, IEEE Trans. on Pow. App. and Systems, vol. PAS-95, No. 4, July/August 1976, pp. 1413-1421
 46. *On Minimum Separation of Graphs*, Paper A 75 087-2, IEEE PES Winter Meeting 1975, New York, U.S.A.
 47. *A Problem Oriented Algorithm for Load-Flow Computation in Distribution Networks* (co-author), Paper C 73 102-1, IEEE PES Winter Meeting 1973, New York, U.S.A.
 48. *A New Graphical Concept for Power Systems: The Graph Gamma-S* (co-author), Paper C 73 105-4 IEEE PES Winter Meeting 1973, New York, U.S.A.
 49. *Impact of Topology Changes on Transmission Losses in Distribution Networks* (in French), CIGRE-CIRED 1969, Rapp. No. 2, 1969, Liege, Belgium
 50. *Evaluation of the Stability Reserve of Transeletrica's Transmission System by Using QuickStab Professional* (co-author), -- Paper S2p-12-en, National Conference of Energy CNE 2004, 13-17 June 2004, Neptun, Romania
 51. *Fast Steady-State Stability Assessment for Early Prediction of Approaching Blackouts*, Paper presented at the 2003 Taiwan Power Conference, December 12, 2003, Taipei, Taiwan
 52. *Two Recent Applications of REI-Dimo Nodal Analysis*, Paul Dimo Memorial, September 29-30, 1994, Sinaia, Romania
 53. *Practical Implementation of the REI-Dimo Method for Voltage and Steady-State Stability Assessment*, National Energy Conference CNE'94, June 13-16, 1994, Neptun, Romania
 54. *Operational Experience with the Real-Time Security Assessment System of Empresas Publicas de Medellin*, National Energy Conference CNE'91, June 16-18, 1991, Neptun, Romania
 55. *Choosing the Best Computer for Energy Management Systems*, Public Utilities Fortnightly, Vol. 120, No. 4, August 20, 1987
 56. *C Language: its Future in Energy Management Systems*, Electrical World, Vol. 201, No. 12, December 1987
 57. *Display Management in C Language. Part A: Displays in Interactive Computing*, TI Computing, Vol. 2, No. 5, May 1985
 58. *Display Management in C Language. Part B: Virtual Displays and Bit Mapped Graphics*, TI Computing, Vol. 2, No. 6, June 1985
 59. *Why C?*, TI Computing, Vol. 3, No. 8, Aug. 1986
 60. *Contingency Analysis in Power Systems* (in Portuguese), 1st EE Pan-American Meeting, January 1978, Salvador, BA, Brazil
 61. *Reliability Data Bases* (co-author; in Portuguese), 1st Pan-American Meeting in Electrical Engineering, January 1978, Salvador, BA, Brazil
 62. *Essential Buses in Power Systems* (co-author; in Portuguese), IVth National Seminar for

- Generation and Transmission of Electrical Energy, Sept. 1977, Rio de Janeiro, Brazil
63. *X'REI Model: A Real-Time Equivalent for Contingency Analysis* (co-author; in Portuguese), IVth National Seminar for Electric Power Generation and Transmission, September, 1977, Rio de Janeiro, Brazil
64. *Note About the Computation of Power Flows in Distribution Networks* (co-author; in Portuguese), IVth National Seminar for Electrical Energy Generation and Transmission, September, 1977, Rio de Janeiro, Brazil
65. *The Concept of Essential Node in a Power System* (co-author; in Portuguese), Revista Brasileira de Tecnologia, Vol. 8, 1977, pp. 123-134, Rio de Janeiro, R.J., Brazil
66. *Load-Flow Computation in Distribution Networks: A New Technique* (co-author), 2nd International Symposium on Network Theory, 1972, Herceg Novi, Yugoslavia
67. *Loss Sensitivity in Power Systems* (in French), Bulletin SRBE, Revue E, No. 6, June, 1970, Bruxelles, Belgium
68. *FORTTRAN Programming of Loss Sensitivity in Power System Networks* (in Romanian), Studii si Cercetari de Cibernetica Economica, No. 2, 1970, Bucharest, Romania
69. *Recent Advances in the Computation of Power System Network States* (in French), Bulletin Scientifique de l'AIM, No. 3, 1969, Liege, Belgium
70. *About the Minimization of Transmission Losses in Power System Networks* (in Romanian), Studii si Cercetari de Matematica, No. 10, 1969, Bucharest, Romania
71. *About the Optimization of Reactive Powers in Power Systems* (in French), World Power Conference, August 1968, Moscow, USSR
72. *Numerical Methods for Power Flow Computation in Power System Networks* (in Romanian), ENERGETICA, No. 5, 1969, Bucharest, Romania
73. *Using the Rosen Quadratic Programming Algorithm to Solve the Economic Dispatch Problem* (in Romanian), ENERGETICA, No. 10, 1967, Bucharest, Romania
74. *Distribution of Temperatures in the Insulation of PVC 1kV Cables* (in Romanian), ELECTROTEHNICA, No. 9, 1966, Bucharest, Romania
75. *An Analytical Approach to Modeling Hydro Plants in Economic Dispatch Calculations* (in Romanian), ENERGETICA, No. 3, 1966, Bucharest, Romania

Student-Edition Books and Lecture Notes

76. *Fundamentals of Power System Planning and Operations*, Lecture Notes, 1991, Pratt Institute, Brooklyn, New York
77. *Introduction to Computer Architecture and Performance Analysis*, Lecture Notes, 1991, Pratt Institute, Brooklyn, New York
78. *Design and Implementation of User-Computer Interface Support Software*, Lecture Notes, 1990, Pratt Institute, Brooklyn, New York
79. *Electrical Transmission Lines* (co-author; original title in Portuguese language: *Linhas de Transmissao de Energia Eletrica*), Student Edition, 1975, EESC-USP, Sao Carlos, S.P., Brazil
80. *Theoretical Foundations of Power System Analysis* (original title in Portuguese language: *Sistemas Eletricos de Potencia - Bases Teoricas*), Student Edition, 1974, EESC-USP, Sao Carlos, S.P., Brazil
81. *The APL Based Language SAVEL-1* (original title in French language: *Le Programme SAVEL-1*), a macro-extension of the IBM APL\360 interpreter with complex algebra and network transformations, April 1973, Faculte Polytechnique de Mons, Mons, Belgium
82. *Load-Frequency Control* (co-author; original title in French language: *Le Réglage Automatique Frequence-Puissance*) Lecture Notes, July 1972, Faculte Polytechnique de Mons, Mons, Belgium