

Bibliography

- [1] L. Acar. Some examples for the decentralized receding horizon control. In *Proceedings of the 31st IEEE Conference on Decision and Control*, pages 1356–1359, Tucson, Arizona, 1992.
- [2] M. Aicardi, G. Casalino, R. Minciardi, and R. Zoppoli. On the existence of stationary optimal receding-horizon strategies for dynamic teams with common past information structures. *IEEE Transactions on Automatic Control*, 37:1767–1771, November 1992.
- [3] M. Aldeen and J. F. Marsh. Observability, controllability and decentralized control of interconnected power systems. *International Journal on Computers and Electrical Engineering*, 16(4):207–220, 1990.
- [4] P.J. Antsaklis and A. Nerode, editors. Special issue on hybrid systems. *IEEE Transactions on Automatic Control*, 43(4), April 1998.
- [5] Power Systems Test Case Archive. Parameters of the IEEE 57-bus grid. <http://www.ee.washington.edu/research/pstca/>.
- [6] K. J. Åström and B. Wittenmark. *Computer-Controlled Systems*. Prentice-Hall, Upper Saddle River, New Jersey, 1997.
- [7] K. J. Åström, H. Elmquist, and S. E. Mattsson. Evolution of continuous-time modeling and simulation. In *Proceedings of the 12th European Simulation Multiconference*, pages 9–18, Manchester, UK, June 1998.
- [8] N. Atic, D. Kerkpredapong, A. Hasanovic, and A. Feliachi. NERC compliant decentralized load frequency control design using model predictive control. In *Proceedings on the IEEE Power Engineering Society General Meeting*, Toronto, Canada, July 2003.
- [9] C. Audet and J. E. Dennis Jr. Pattern search algorithms for mixed variable programming. *SIAM Journal on Optimization*, 11(3):573–594, 2000.
- [10] C. Audet and J. E. Dennis Jr. Analysis of generalized pattern searches. *SIAM Journal on Optimization*, 13(3):889–903, 2007.
- [11] T. Başar and G. J. Olsder. *Dynamic Non-Cooperative Game Theory*. Academic Press, London, UK, 1998.

- [12] M. Baglietto, T. Parisini, and R. Zoppoli. Neural approximators and team theory for dynamic routing: A receding-horizon approach. In *Proceedings of the 38th IEEE Conference on Decision and Control*, pages 3283–3288, Phoenix, Arizona, 1999.
- [13] P. Barton and C. Pantelides. Modeling of combined discrete/continuous processes. *AICHE Journal*, 40(6):966–979, 1994.
- [14] J. Batut and A. Renaud. Daily generation scheduling optimization with transmission constraints: a new class of algorithms. *IEEE Transactions on Power Systems*, 7(3):982–989, August 1992.
- [15] A. G. Beccuti and M. Morari. A distributed solution approach to centralized emergency voltage control. In *Proceedings of the 2006 IEEE American Control Conference*, pages 3445–3450, Minneapolis, Minnesota, June 2006.
- [16] A. Bemporad and M. Morari. Control of systems integrating logic, dynamics, and constraints. *Automatica*, 35(3):407–427, March 1999.
- [17] J. Bernussou and A. Titli. *Interconnected Dynamical Systems: Stability, Decomposition and Decentralisation*. North-Holland Publishing Company, Amsterdam, The Netherlands, 1982.
- [18] D. P. Bertsekas. *Nonlinear Programming*. Athena Scientific, Belmont, Massachusetts, 2003.
- [19] D. P. Bertsekas. *Constrained Optimization and Lagrange Multiplier Methods*. Academic Press, London, UK, 1982.
- [20] D. P. Bertsekas and J. N. Tsitsiklis. *Parallel and Distributed Computation: Numerical Methods*. Athena Scientific, New Hampshire, 1997.
- [21] P. R. Bhave and R. Gupta. *Analysis of Water Distribution Networks*. Alpha Science International, Oxford, UK, 2006.
- [22] L. G. Bleris, P. D. Vouzis, J. G. Garcia, M. G. Arnold, and M. V. Kothare. Pathways for optimization-based drug delivery. *Control Engineering Practice*, 15(10):1280–1291, October 2007.
- [23] S. Boyd and L. Vandenberghe. *Convex Optimization*. Cambridge University Press, Cambridge, UK, 2004.
- [24] S. D. Braithwait. Real-time pricing and demand response can work within limits. *Natural Gas and Electricity*, 21(11):1–9, 2005.
- [25] M. W. Braun, D. E. Rivera, M. E. Flores, W. M. Carlyle, and K. G. Kempf. A model predictive control framework for robust management of multi-product, multi-echelon demand networks. *Annual Reviews in Control*, 27:229–245, 2003.
- [26] K. E. Brenan, S. L. Campbell, and L. R. Petzold. *Numerical Solution of Initial-Value Problems in Differential-Algebraic Equations*. SIAM, Philadelphia, Pennsylvania, 1996.

- [27] E. F. Camacho and C. Bordons. *Model Predictive Control in the Process Industry*. Springer-Verlag, Berlin, Germany, 1995.
- [28] E. Camponogara, D. Jia, B. H. Krogh, and S. Talukdar. Distributed model predictive control. *IEEE Control Systems Magazine*, 1:44–52, February 2002.
- [29] C. G. Cassandras and S. Lafortune. *Introduction to Discrete Event Systems*. Kluwer Academic Publishers, Boston, Massachusetts, 1999.
- [30] C. G. Cassandras, S. Lafortune, and G. J. Olsder. Introduction to the modelling, control and optimization of discrete event systems. In A. Isidori, editor, *Trends in Control: A European Perspective*, pages 217–291. Springer-Verlag, Berlin, Germany, 1995.
- [31] A. J. Conejo, F. J. Nogales, and F. J. Prieto. A decomposition procedure based on approximate newton directions. *Mathematical Programming, Series A*, 93(3):495–515, December 2002.
- [32] A. R. Conn, K. Scheinberg, and P. L. Toint. Recent progress in unconstrained nonlinear optimization without derivatives. *Mathematical Programming*, 79(1–3):397–414, 1997.
- [33] C. F. Daganzo. *Fundamentals of Transportation and Traffic Operations*. Pergamon Press, New York, New York, 1997.
- [34] R. David. Modeling of dynamic systems by Petri nets. In *Proceedings of the 1st European Control Conference*, pages 136–147, Grenoble, France, July 1991.
- [35] B. De Schutter and T. J. J. van den Boom. Model predictive control for max-min-plus-scaling systems. In *Proceedings of the 2001 American Control Conference*, pages 319–324, Arlington, Virginia, June 2001.
- [36] B. De Schutter, T. van den Boom, and A. Hegyi. A model predictive control approach for recovery from delays in railway systems. *Transportation Research Record*, (1793):15–20, 2002.
- [37] W. B. Dunbar and R. M. Murray. Model predictive control of coordinated multi-vehicle formations. In *Proceedings of the 41st IEEE Conference on Decision and Control*, pages 4631–4636, Las Vegas, Nevada, December 2002.
- [38] W. B. Dunbar and R. M. Murray. Distributed receding horizon control for multi-vehicle formation stabilization. *Automatica*, 42(4):549–558, April 2006.
- [39] Dynasim. Dymola – User’s Manual. Technical report, Dynasim AB, Lund, Sweden, 2004.
- [40] A. Edris, R. Adapa, M. H. Baker, L. Bohmann, K. Clark, K. Habashi, L. Gyugyi, J. Lemay, A. S. Mehraban, A. K. Meyers, J. Reeve, F. Sener, D. R. Torgerson, and R. R. Wood. Proposed terms and definitions for flexible AC transmission system (FACTS). *IEEE Transactions on Power Delivery*, 12(4):1848–1853, October 1997.

- [41] H. El Fawal, D. Georges, and G. Bornard. Optimal control of complex irrigation systems via decomposition-coordination and the use of augmented Lagrangian. In *Proceedings of the 1998 International Conference on Systems, Man, and Cybernetics*, pages 3874–3879, San Diego, California, 1998.
- [42] O. I. Elgerd and C. Fosha. Optimum megawatt frequency control of multi-area electric energy systems. *IEEE Transactions on Power Apparatus and Systems*, PAS-89(4):556–563, February 1970.
- [43] Elkraft Systems. Power failure in Eastern Denmark and Southern Sweden on 23 September 2003 – preliminary report on the course of events. Technical report, Elkraft Systems, Holte, Denmark, 2003.
- [44] H. Elmquist, F. E. Cellier, and M. Otter. Object-oriented modeling of hybrid systems. In *Proceedings of the European Simulation Symposium*, pages xxxi–xli, Delft, The Netherlands, October 1998.
- [45] B. Fardanesh. Future trends in power system control. *IEEE Computer Applications in Power*, 15(3):24–31, July 2002.
- [46] R. G. Farmer and P. M. Anderson. *Series Compensation of Power Systems*. PBL SH, Encinitas, California, 1996.
- [47] C. E. Fosha and O. I. Elgerd. The megawatt frequency control problem: A new approach via optimal control theory. *IEEE Transactions on Power Apparatus and Systems*, PAS-89(4):563–577, April 1970.
- [48] G. Georges. Decentralized adaptive control for a water distribution system. In *Proceedings of the 3rd IEEE Conference on Control Applications*, pages 1411–1416, Glasgow, UK, 1999.
- [49] T. Geyer, M. Larsson, and M. Morari. Hybrid emergency voltage control in power systems. In *Proceedings of the European Control Conference 2003*, Cambridge, UK, September 2003.
- [50] P. E. Gill, W. Murray, and M. A. Saunders. SNOPT: An SQP algorithm for large-scale constrained optimization. *SIAM Journal on Optimisation*, 12(4):979–1006, 2002.
- [51] G. Glanzmann and G. Andersson. FACTS control for large power systems incorporating security aspects. In *Proceedings of X SEPOPE*, Florianopolis, Brazil, May 2006.
- [52] G. Glanzmann and G. Andersson. Using FACTS devices to resolve congestions in transmission grids. In *Proceedings of the CIGRE/IEEE PES International Symposium*, San Antonio, Texas, October 2005.
- [53] M. Gomez, J. Rodellar, F. Vea, J. Mantecon, and J. Cardona. Decentralized predictive control of multireach canals. In *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, pages 3885–3890, San Diego, California, 1998.

- [54] A. H. González, D. Odloak, and J. L. Marchetti. Predictive control applied to heat-exchanger networks. *Chemical Engineering and Processing*, 45(8):661–671, August 2006.
- [55] E. González-Romera, M. Á. Jaramillo-Morán, and D. Carmona-Fernández. Forecasting of the electric energy demand trend and monthly fluctuation with neural networks. *Computers and Industrial Engineering*, 52:336–343, April 2007.
- [56] G. C. Goodwin, M. M. Seron, R. H. Middleton, M. Zhang, B. F. Hennessy, P. M. Stone, and M. Menabde. Receding horizon control applied to optimal mine planning. *Automatica*, 42(8):1337–1342, August 2006.
- [57] W. P. M. H. Heemels, B. De Schutter, and A. Bemporad. Equivalence of hybrid dynamical models. *Automatica*, 37(7):1085–1091, July 2001.
- [58] A. Hegyi, B. De Schutter, and J. Hellendoorn. Optimal coordination of variable speed limits to suppress shock waves. *IEEE Transactions on Intelligent Transportation Systems*, 6(1):102–112, March 2005.
- [59] D. J. Hill. Nonlinear dynamic load models with recovery for voltage stability studies. *IEEE Transactions on Power Systems*, 8(1):166–176, February 1993.
- [60] D. J. Hill, Y. Guo, M. Larsson, and Y. Wang. Global control of complex power systems. In G. Chen, D. J. Hill, and X. Yu, editors, *Bifurcation Control: Theory and Applications*, Lecture Notes in Control and Information Sciences, pages 155–187. Springer, Berlin, Germany, 2003.
- [61] P. Hines, L. Huawei, D. Jia, and S. Talukdar. Autonomous agents and cooperation for the control of cascading failures in electric grids. In *Proceedings of the 2005 IEEE International Conference on Networking, Sensing and Control*, pages 273–278, Tucson, Arizona, March 2005.
- [62] N. G. Hingorani and L. Gyugyi. *Understanding FACTS concepts and technology of flexible AC transmission systems*. IEEE Press, New York, New York, 2000.
- [63] I. A. Hiskens and K. Mitsumoto. Dynamical systems benchmark library. URL: http://psdyn.ece.wisc.edu/IEEE_benchmarks/, 2005.
- [64] Y. C. Ho, P. B. Luh, and G. J. Olsder. A control-theoretic view on incentives. In *Proceedings of the 19th IEEE Conference on Decision and Control*, pages 1160–1170, Albuquerque, New Mexico, December 1980.
- [65] K. Holmström, A. O. Göran, and M. M. Edvall. User’s guide for Tomlab /SNOPT, December 2006.
- [66] K. Holmström, A. O. Göran, and M. M. Edvall. User’s guide for Tomlab /CPLEX, June 2007.
- [67] M. Houwing, A. N. Ajah, P. M. Herder, and I. Bouwmans. Addressing uncertainties in the design and operation of residential distributed energy resources: Case study

- of a micro-CHP system. In *Proceedings of the 10th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction*, Ischia Island, Italy, June 2007.
- [68] M. Houwing, R. R. Negenborn, P. Heijnen, B. De Schutter, and J. Hellendoorn. Least-cost model predictive control of residential energy resources when applying μ CHP. In *Proceedings of Power Tech 2007*, Lausanne, Switzerland, July 2007. Paper 291.
 - [69] G. Hug-Glanzmann, R. R. Negenborn, G. Andersson, B. De Schutter, and J. Hellendoorn. Multi-area control of overlapping areas in power systems for FACTS control. In *Proceedings of Power Tech 2007*, Lausanne, Switzerland, July 2007. Paper 277.
 - [70] Ibraheem, P. Kumar, and D. P. Kothari. Recent philosophies of automatic generation control strategies in power systems. *IEEE Transactions on Power Systems*, 20(1):346–357, February 2005.
 - [71] ILOG. CPLEX. URL: <http://www.ilog.com/products/cplex/>, 2007.
 - [72] R. Irizarry-Rivera and W. D. Seider. Model-predictive control of the Czochralski crystallization process. Part I. Conduction-dominated melt. *Journal of Crystal Growth*, 178(4):593–611, 1997.
 - [73] N. Jenkins, R. Allan, P. Crossley, D. Kirschen, and G. Strbac. *Embedded Generation*. TJ International, Padstow, UK, 2000.
 - [74] D. Jia and B. Krogh. Min-max feedback model predictive control for distributed control with communication. In *Proceedings of the 2002 American Control Conference*, pages 4507–4512, Anchorage, Alaska, May 2002.
 - [75] D. Jia and B. H. Krogh. Distributed model predictive control. In *Proceedings of the 2001 American Control Conference*, pages 2767–2772, Arlington, Virginia, June 2001.
 - [76] D. Karlsson and D. J. Hill. Modelling and identification of nonlinear dynamic loads in power systems. *IEEE Transactions on Power Systems*, 9(1):157–163, February 1994.
 - [77] M. R. Katebi and M. A. Johnson. Predictive control design for large-scale systems. *Automatica*, 33(3):421–425, 1997.
 - [78] H. Kawabata and M. Kido. A decentralized scheme of load frequency control power system. *Electrical Engineering Japan*, 102(4):100–106, July 1982.
 - [79] T. Keviczky, F. Borrelli, and G. J. Balas. A study on decentralized receding horizon control for decoupled systems. In *Proceedings of the 2004 American Control Conference*, volume 6, pages 4921–4926, Boston, Massachusetts, June 2004.
 - [80] B. H. Kim and R. Baldick. A comparison of distributed optimal power flow algorithms. *IEEE Transactions on Power Systems*, 15(2):599–604, May 2000.
 - [81] B. H. Kim and R. Baldick. Coarse-grained distributed optimal power flow. *IEEE Transactions on Power Systems*, 12(2):932–939, May 1997.

- [82] P. Kundur. *Power System Stability and Control*. McGraw-Hill, New York, New York, 1994.
- [83] S. Leirens, J. Buisson, P. Bastard, and J.-L. Coulon. A hybrid approach for voltage stability of power systems. In *Proceedings of the 15th Power Systems Computation Conference*, Liège, Belgium, August 2005. Paper 291.
- [84] R. M. Lewis and V. Torczon. Pattern search methods for linearly constrained minimization. *SIAM Journal on Optimization*, 10(3):917–941, 2000.
- [85] R. M. Lewis and V. Torczon. A globally convergent augmented Lagrangian pattern search algorithm for optimization with constraints and simple bounds. *SIAM Journal on Optimization*, 12(4):1075–1089, 2002.
- [86] R. M. Lewis and V. Torczon. Pattern search algorithms for bound constrained minimization. *SIAM Journal on Optimization*, 9(4):1082–1099, 1999.
- [87] R. M. Lewis, V. Torczon, and M. W. Trosset. Direct search methods: then and now. *Journal of Computational and Applied Mathematics*, 124(1–2):191–207, December 2000.
- [88] G. Lodewijks. *Dynamics of Belt Systems*. PhD thesis, Delft University of Technology, The Netherlands, 1996.
- [89] Z. Lukszo, M. P. C. Weijnen, R. R. Negenborn, B. De Schutter, and M. Ilić. Challenges for process system engineering in infrastructure operation and control. In W. Marquardt and C. Pantelides, editors, *16th European Symposium on Computer Aided Process Engineering and 9th International Symposium on Process Systems Engineering* (Garmisch-Partenkirchen, Germany, July 2006), volume 21 of *Computer-Aided Chemical Engineering*, pages 95–100. Elsevier, Amsterdam, The Netherlands, 2006.
- [90] Z. Lukszo, M. P. C. Weijnen, R. R. Negenborn, and B. De Schutter. Tackling challenges in infrastructure operation and control using multi-level and multi-agent control. Technical Report 07-027, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 2007. Submitted to a journal.
- [91] E. Lysen, S. Van Egmond, and S. Hagedoorn. Opslag van elektriciteit: Status en toekomstperspectief voor Nederland. Technical Report NEO 0268-05-05-01-002, Utrecht Centrum voor Energieonderzoek – SenterNovem, Utrecht, The Netherlands, 2006. In Dutch.
- [92] J. Machowski, J. Bialek, and J. R. Bumby. *Power System Dynamics and Stability*. John Wiley & Sons, New York, New York, 1997.
- [93] J. M. Maciejowski. *Predictive Control with Constraints*. Prentice-Hall, Harlow, UK, 2002.
- [94] Y. Majanne. Model predictive pressure control of steam networks. *Control Engineering Practice*, 13(12):1499–1505, December 2005.

- [95] A. Manzoni, A. S. de Silva, and I. C. Decker. Power systems, dynamics simulation using object-oriented programming. *IEEE Transactions on Power Systems*, 14(1): 249–255, 1999.
- [96] R. Martí. Multi-Start Methods. In F. Glover and G. A. Kochenberger, editors, *Handbook of Metaheuristics*, chapter 12, pages 355–368. Springer, New York, New York, 2006.
- [97] MathWorks. Genetic Algorithm and Direct Search Toolbox 2 – User’s Guide, 2007.
- [98] Mathworks. Matlab. URL: <http://www.mathworks.com/>, 2007.
- [99] S. E. Mattsson, H. Elmquist, and M. Otter. Physical system modeling with Modelica. *Control Engineering Practice*, 6(4):501–510, April 1998.
- [100] M. D. Mesarovic, D. Macko, and Y. Takahara. *Theory of Hierarchical Multilevel Systems*. Academic Press, New York, New York, 1970.
- [101] P. J. Modi, W. M. Shen, M. Tambe, and M. Yokoo. ADOPT: Asynchronous Distributed Constraint Optimization with quality guarantees. *Artificial Intelligence*, 161 (1-2):149–180, January 2005.
- [102] M. Morari and J. H. Lee. Model predictive control: past, present and future. *Computers and Chemical Engineering*, 23(4):667–682, 1999.
- [103] J. J. Moré and S. J. Wright. *Optimization Software Guide*. SIAM, Philadelphia, Pennsylvania, 1993.
- [104] A. S. Morse, C. C. Pantelides, S. Sastry, and J. M. Schumacher, editors. Special issue on hybrid systems. *Automatica*, 35(3), March 1999.
- [105] I. R. Navarro, M. Larsson, and G. Olsson. Object-oriented modeling and simulation of power systems using modelica. In *Proceedings of the IEEE Power Engineering Society Winter Meeting*, pages 790–795, Singapore, January 2000.
- [106] R. R. Negenborn, B. De Schutter, M.A. Wiering, and H. Hellendoorn. Learning-based model predictive control for Markov decision processes. In *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, July 2005. Paper 2106 / We-M16-TO/2.
- [107] R. R. Negenborn, B. De Schutter, and H. Hellendoorn. Multi-agent model predictive control of transportation networks. In *Proceedings of the 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC 2006)*, pages 296–301, Fort Lauderdale, Florida, April 2006.
- [108] R. R. Negenborn, B. De Schutter, and H. Hellendoorn. Multi-agent model predictive control for transportation networks with continuous and discrete elements. In *Proceedings of the 11th IFAC Symposium on Control in Transportation Systems*, pages 609–614, Delft, The Netherlands, August 2006.

- [109] R. R. Negenborn, B. De Schutter, and J. Hellendoorn. Multi-agent model predictive control for transportation networks: Serial versus parallel schemes. In *Proceedings of the 12th IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2006)*, pages 339–344, Saint-Etienne, France, May 2006.
- [110] R. R. Negenborn, A. G. Beccuti, T. Demiray, S. Leirens, G. Damm, B. De Schutter, and M. Morari. Supervisory hybrid model predictive control for voltage stability of power networks. In *Proceedings of the American Control Conference 2007*, pages 5444–5449, New York, New York, July 2007.
- [111] R. R. Negenborn, B. De Schutter, and J. Hellendoorn. Efficient implementation of serial multi-agent model predictive control by parallelization. In *Proceedings of the 2007 IEEE International Conference on Networking, Sensing, and Control*, pages 175–180, London, UK, July 2007.
- [112] R. R. Negenborn, B. De Schutter, and J. Hellendoorn. Multi-agent model predictive control for transportation networks: Serial versus parallel schemes. Technical Report 07-024, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 2007. To appear in *Engineering Applications of Artificial Intelligence*.
- [113] R. R. Negenborn, S. Leirens, B. De Schutter, and J. Hellendoorn. Supervisory non-linear MPC for emergency voltage control using pattern search. Technical Report 07-025, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 2007. Submitted to a journal.
- [114] P. G. Neumann. Widespread network failures. *Communications of the ACM*, 50(2):112, 2007.
- [115] J. Nocedal and S. Wright. *Numerical Optimization*. Springer Series in Operations Research. Springer-Verlag, New York, 1999. ISBN 0-387-98793-2.
- [116] F. J. Nogales, F. J. Prieto, and A. J. Conejo. Multi-area AC optimal power flow: A new decomposition approach. In *Proceedings of the 13th Power Systems Control Conference (PSCC)*, pages 1201–1206, Trondheim, Germany, 1999.
- [117] S. Ochs, S. Engell, and A. Draeger. Decentralized vs. model predictive control of an industrial glass tube manufacturing process. In *Proceedings of the 1998 IEEE Conference on Control Applications*, pages 16–20, Trieste, Italy, 1998.
- [118] M. Otter, H. Elmquist, and S. E. Mattson. Hybrid modeling in Modelica based on the synchronous data flow principle. In *Proceedings of the International Symposium on Computer Aided Control System Design*, pages 151–157, Kohala Coast-Island of Hawai’i, Hawai’i, August 1999.
- [119] Y. M. Park and K. Y. Lee. Optimal decentralized load frequency control. *Electrical Power Systems Research*, 7(4):279–288, September 1984.
- [120] M. Pehnt, M. Cames, C. Fischer, B. Praetorius, L. Schneider, K. Schumacher, and J. Vob. *Micro Cogeneration: Towards Decentralized Energy Systems*. Springer, Berlin, Germany, 2006.

- [121] L. R. Petzold. A description of DASSL - A differential/algebraic system solver. In *Proceedings of the 10th World Congress on System Simulation and Scientific Computation*, pages 430–432, Montreal, Canada, August 1983.
- [122] P. C. Piela, T. G. Epperly, K. M. Westerberg, and A. W. Westerberg. ASCEND: an object-oriented computer environment for modeling and analysis: The modeling language. *Computers and Chemical Engineering*, 15(1):53–72, January 1991.
- [123] S. Piñón, E. F. Camacho, B. Kuchen, and M. Peña. Constrained predictive control of a greenhouse. *Computers and Electronics in Agriculture*, 49(3):317–329, December 2005.
- [124] W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery. *Numerical Recipes*. Cambridge University Press, Cambridge, UK, 2007.
- [125] G. Quazza. Noninteracting controls of interconnected electric power systems. *IEEE Transactions on Power Apparatus and Systems*, PAS-85(7):727–741, July 1966.
- [126] D. Rerkpreedapong, N. Atic, and A. Feliachi. Economy oriented model predictive load frequency control. In *Proceedings of the 2003 Large Engineering Systems Conference on Power Engineering*, pages 12–16, Montreal, Canada, May 2003.
- [127] C. B. Royo. *Generalized Unit Commitment by the Radar Multiplier Method*. PhD thesis, Technical University of Catalonia, Barcelona, Spain, May 2001.
- [128] P. W. Sauer and M. A. Pai. *Power System Dynamics and Stability*. Prentice-Hall, London, UK, 1998.
- [129] S. Sawadogo, R. M. Faye, P. O. Malaterre, and F. Mora-Camino. Decentralized predictive controller for delivery canals. In *Proceedings of the 1998 IEEE International Conference on Systems, Man, and Cybernetics*, pages 3380–3884, San Diego, California, 1998.
- [130] N. I. Shaikh and V. Prabhu. Model predictive controller for cryogenic tunnel freezers. *Journal of Food Engineering*, 80(2):711–718, May 2007.
- [131] M. G. Singh and A. Titli. *Systems Decomposition, Optimisation and Control*. Pergamon Press, Oxford, UK, 1978.
- [132] J.-E. Skog, K. Koreman, and B. Pääjärvi. The Norned HVDC cable link – A power transmission highway between Norway and The Netherlands. In *Proceedings of Energex 2006*, Stavanger, Norway, June 2006.
- [133] E. D. Sontag. Nonlinear regulation: The piecewise linear approach. *IEEE Transactions on Automatic Control*, 26(2):346–358, April 1981.
- [134] K. Staňková, M. C. J. Bliemer, and G. J. Olsder. Inverse Stackelberg games and their application to dynamic bilevel optimal toll design problem. In *Proceedings of the 12th International symposium on dynamic games and applications*, Sophia Antipolis, France, July 2006.

- [135] K. P. Sycara. Multiagent systems. *AI Magazine*, 2(19):79–92, 1998.
- [136] The Modelica Association. Modelica - A Unified Object-Oriented Language for Physical Systems Modeling – Language specification. URL: <http://www.modelica.org/documents/ModelicaSpec22.pdf>, 2005.
- [137] M. M. Thomas, J. L. Kardos, and B. Joseph. Shrinking horizon model predictive control applied to autoclave curing of composite laminate materials. In *Proceedings of the American Control Conference*, pages 505–509, Baltimore, Maryland, June 1994.
- [138] V. Torczon. On the convergence of pattern search algorithms. *SIAM Journal on Optimization*, 7(1):1–25, 1997.
- [139] UCTE. Final report of the investigation committee on the 28 September 2003 black-out in Italy. Technical report, Union for the Coordination of Transmission of Electricity (UCTE), Brussels, Belgium, 2003.
- [140] UCTE. Final report system disturbance on 4 November 2006. Technical report, Union for the Coordination of Transmission of Electricity (UCTE), Brussels, Belgium, 2006.
- [141] U.S.-Canada Power System Outage Task Force. Final report on the August 14, 2003 blackout in the United States and Canada: causes and recommendations. Technical report, April 2004.
- [142] T. Van Cutsem and C. Vournas. *Voltage Stability of Electric Power Systems*. Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998.
- [143] A. J. van der Schaft and J. M. Schumacher. *An Introduction to Hybrid Dynamical Systems*, volume 251 of *Lecture Notes in Control and Information Sciences*. Springer-Verlag, London, 2000.
- [144] A. N. Venkat, I. A. Hiskens, J. B. Rawlings, and S. J. Wright. Distributed output feedback MPC for power system control. In *Proceedings of the 45th IEEE Conference on Decision and Control*, San Diego, California, December 2006.
- [145] D. D. Šiljak. *Decentralized Control of Complex Systems*. Academic Press, Boston, Massachusetts, 1991.
- [146] W. Wang, D. E. Rivera, and K. G. Kempf. Model predictive control strategies for supply chain management in semiconductor manufacturing. *International Journal of Production Economics*, 107(1):56–77, May 2007.
- [147] G. Weiss. *Multiagent Systems: A Modern Approach to Distributed Artificial Intelligence*. MIT Press, Cambridge, Massachusetts, 2000.
- [148] Wikipedia. List of famous wide-scale power outages. URL: http://en.wikipedia.org/wiki/List_of_power_outages, 2007.
- [149] H. P. Williams. *Model Building in Mathematical Programming*. Wiley, New York, New York, 1993.

- [150] M. H. Wright. Direct search methods: Once scorned, now respectable. In D. F. Griffiths and G. A. Watson, editors, *Numerical Analysis 1995*, pages 191–208. Addison Wesley, Harlow, UK, 1996.
- [151] T. C. Yang, H. Cimen, and Q. M. Zhu. Decentralised load-frequency controller design based on structured singular values. *IEE Proceedings Generation, Transmission and Distribution*, 145(1):7–14, January 1998.
- [152] T. C. Yang, Z. T. Ding, and H. Yu. Decentralised power system load frequency control beyond the limit of diagonal dominance. *International Journal on Electrical Power Energy Systems*, 24(3):173–184, March 2002.