REFERNCES

- [1] US Nuclear Regulatory Commission (NRC), "Fire Protection Program for Operating Nuclear Power Plants", Final Rule 10 CFR Part 50, Federal Register, Vol. 45, p. 76602, November 19, 1980.
- [2] D. Cline .D, von Riesmann, W.A., Chavez & J.M., US NRC, NUREG:CR-2300. "PRA Procedures Guide", January, 1983a.
- [3] US NRC, NUREG:CR-3192, "Investigation of Twenty-Foot Separation Distance as a Fire Protection Method as Specified in 10 CFR 50", Appendix R, 1983b.
- [4] NUREG/CP-0173,"International Collaborative Project to Evaluate Fire Models for Nuclear Power Plant Applications", Summary of 2nd Meeting, Institute for Protection and Nuclear Safety Fontenay-aux-Roses, France, June 19-20, 2000 U.S.
- [5] DOE-EH-4.2.1.4, "Final CFAST Code Guidance, CFAST Computer Code, Application Guidance for Documented Safety Analysis Final Report", U.S. Department of Energy, Office of Environment, Safety and Health, July 2004.
- [6] NUREG-1824, EPRI 1011999, Final Report, "Verification & Validation of Selected Fire Models for Nuclear Power Plant Applications", Volume 3: Fire Dynamics Tools (FDTS), May 2007.
- [7] IAEA-TECDOC-1421, "Experience gained from fires in nuclear power plants: Lessons learned", November 2004.
- [8] International Atomic Energy Agency, "Safety of Nuclear Power Plants: Design", Safety Standards Series No. NS-R-1, IAEA, Vienna (2000).
- [9] D. T. Gottuk, J. A. Lynch, S. L. Rose-Pehrsson, J. C. Owrutsky & F. W. Williams, "Video image fire detection for ship board use", Fire Safety Journal 41 (4) (2006) 321–326.
- [10] G. Healey, D. Slater, T. Lin, B. Drda, and A. Goedeke, "A system for real- time fire detection", in Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), pages 15{17, 1993.
- [11] T. Chen, P. Wu & Y. Chiou, "An early fire-detection method based on image processing", in Proceedings of the IEEE International Conference on Image Processing (ICIP), pages 1707-1710, 2004.
- [12] W. Straumann, D. Rizzotti, & N. Schibli, "Method and Device for Detecting Fires Based on Image Analysis", European Patent EP 1,364,351, 2002.
- [13] C. Liu & N. Ahuja, "Vision based fire detection", In Proceedings of the International Conference on Pattern Recognition (ICPR), volume 4, 2004.
- [14] O. Ahmed & M. Nordin "Study of Genetic Algorithm to Fully-automate the Design and Training of Artificial Neural Network", IJCSNS International Journal of Computer Science and Network Security, VOL.9 No.1, January 2009.
- [15] A b. Moghadassi & F. Parvizian, S. Mohsen, "A New Approach Based on Artificial Neural Networks for Prediction of High Pressure Vapor-liquid Equilibrium", Australian Journal of Basic and Applied Sciences, 3(3): 1851-1862, 2009, ISSN.
- [16] H. Patrick, "Application of artificial neural networks to the prediction of sewing performance of fabrics", International Journal of clothing and Technology, vol. 19 No.5., pp. 291318, 2007.
- [17] M. Konstantinos & M. Zolghadri, "Application of genetic algorithm for optimization of vegetable oil hydrogenation process, Journal of Food Engineering", Volume 78, Issue 1, 2007, pp. 1-8.
- [18] F. shusterman, "Biological engineering applications of feedforward neural networks designed and parameterized by genetic algorithms", Neural Networks, Volume 18, Issue 7, pp. 934-950, 2005.

- [19] M. Majors, J. Stori, & C. vilkov, "Neural network control of automotive fuel-injection systems, Control Systems Magazine", IEEE, Volume: 14, Issue: 3 pp. 31-36,2002.
- [20] C. Levy, E. Arzum & K. Yalcin, "Evaluating and forecasting banking crises through neural network models", An application for Turkish banking sector, Expert Systems with Applications, Volume 33, Issue 4, pp. 809-815, 2007.
- [21] L. Montalvo & G. Hoft, "Neural networks and fuzzy logic in power electronics", Control Engineering Practice, Volume 2, Issue 1, pp. 113-121, 2003.
- [22] Z. Xiaotian, X. Hong Wang, Li & L. Huaizu Li, "Predicting stock index increments by neural networks: The role of trading volume under different horizons", Expert Systems with Applications, Volume 34, Issue 4, pp. 3043-3054,2008.
- [23] G.R. Cheginia, J. Khazaeia, B. Ghobadianb & A.M. Goudarzic, "Prediction of process and product parameters in an orange juice spray dryer using artificial neural networks", Journal of Food Engineering, Volume 84, Issue 4, pp 534-543,2008.
- [24] A. Cetin & R. Ansari, "Signal recovery from wavelet transform maxima", IEEE Trans. Signal Process, page 194–19, 1994.
- [25] NUREG-0980, Vol. 1, No. 8, Nuclear Regulatory Legislation, 11 th Congress; 2d Session, Date Published, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, May 2009.
- [26] O. Riese, D. Hosser & M. Roewekamp, "Evaluation of Fire Models for Nuclear Power Plant Applications Flame Spread in Cable Tray Fires", Benchmark Exercise No. 5, International Panel Report ,November 2006.
- [27] NUREG-1934 EPRI 1019195, "Nuclear Power Plant Fire Modeling Application Guide", Draft Report for Comment, January 2010.
- [28] G. Ramachandran, "Stochastic Models of Fire growth. SFPE handbook of Fire Protection Engineering", Second Edition, National Fire Protection Association, USA, Section 3, Chapter 15, pp. 296-311, 1995.
- [29]. Jr. P. Z, "Fire Engineering Guidelines", "Fire Code Reform Centre Limited" ISBN 0 7337 04549. 20. PEEBLES, 1993.
- [30] B. Lee, "Heat Release Rate Characteristics of Some Combustible Fuel Sources in Nuclear Power Plants," NBSIR 85-3195, National Bureau of Standards, 1985.
- [31] NUREG/CR-6850, Vol. 1, No. 5, Nuclear Regulatory Legislation, 11 th Congress; 2d Session, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, May 2008.
- [32] R. Friedman, 1992, "An International Survey of Computer Models for Fire and Smoke, Journal of Fire Protection Engineering", 4 (3), pp. 81-92, 1992,.
- [33] S. Hunt, & D. Carpenter, "An Updated International Survey of Computer Models for Fire and Smoke", Journal of Fire Protection Engineering, Vol. 13, pp. 87.110, 2003...
- [34] International Atomic Energy Agency, "Treatment of internal fires in probabilistic safety assessment for nuclear power plants", (Safety reports series, ISSN 1020–6450; no. 10) ,STI/PUB/1062 ISBN 92–0–103298–6, 1998...
- [35] NFPA Standard 805, "Performance-Based Standard for Fire Protection for Light-Water Reactor Electric Generating Plants", 2001.
- [36] EPRI/NRC-RES Fire PRA Methodology for Nuclear Power Facilities: Volume 1: Summary and Overview and Volume 2: Detailed Methodology. Electric Power Research Institute (EPRI), Palo Alto,

- CA, and U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research (RES), Rockville, MD: EPRI 1011989, 2005.
- [37] G. Zukoski, ECD/NEA CSNI Technical Opinion Paper No. 1 "Fire Probabilistic Safety Assessment for Nuclear Power Plants". Nuclear Energy Agency. Organisation For Economic Co-Operation And Development. 2002.
- [38] D. Whole, "Fire Risk Analysis, Fire Simulation, Fire Spreading, and Impact of Smoke and Heat on Instrumentation Electronics," NEA/CSNI/R(99)27, February 2000.
- [39]. D. Puser, Toxicity Assessment of Combustion Products, "SFPE Handbook of Fire Protection Engineering". Society of Fire Protection Engineers, 2nd Edition, 1995.
- [40] N. Beard, "Fire Models and Design", Fire Safety Journal 28, pp. 117-138. 17, 1997.
- [41] M. TAT, "Stochastic Modeling and Optimal Control of Compartment Fires", Ph.D. Dissertation, 1999,
- [42] W. Jones and R. Peacock, "Technical Reference Guide for FAST Version 18", Technical Note 1262, National Institute of Standards and Technology, 1989.
- [43] A. Heikki & O. Paolo, "Fire protection in the operational safety of nuclear installations Current trends and issues", DG JRC Institute for Energy, December 2006
- [44] K. McGrattan, K. Bryan, S. Hostikka and J. Floyd "Fire dynamics simulator (version 5) Technical guide", NIST Special Publication 1019-5, 2008.
- [45] G. Forney, "User's Guide for Smoke view Version 5" "A Tool for Visualizing Fire Dynamics Simulation Data", NIST Special Publication 1017-1, 2007.
- [46] American Society for Testing and Materials, West Conshohocken, Pennsylvania. "ASTM E 1355-04, Standard Guide for Evaluating the Predictive Capabilities of Deterministic Fire Models", 2004.
- [47] NFPA 92B, "Guide for Smoke and Heat Venting, National Fire Protection Association", Quincy, MA.
- [48]R.Peacock, G. Forney, P. Reneke, R. Portier & W. Jones, "CFAST, the Consolidated Model of Fire Growth and Smoke Transport. Gaithersburg, National Institute of Standards and Technology", NIST Technical Note 1299. 118 pp. + App. 116 pp,1993.
- [49] T. Korhonen, S.Hostikka, "Fire dynamics simulator with evacuation, version 5", VTT Research notes, Espo (Finland), 2008.
- [50]. B Allan, D. Dougal, H. Paul, & B. Steven, "A Model of Instability and Flashover, Journal of Applied Fire Science", Volume 4, Number 1, 1994-95.
- [51]. A. Mehmet & H. Abraham, "Modeling the Spread of Fire Using Non-Stationary Stochastic Processes, Integrated Risk Assessment", pp. 215-222, 2005.
- [52]. D. Yung & V. Beck, "Building Fire Safety Risk Analysis, Society of Fire Protection Engineers Handbook of Fire Protection Engineering", 2nd Edition, National Fire Protection Association, Quincy, MA, pp. 5-95 to 5-101, 2006
- [53]. L. Breiman& J. Fridman, "Estimating Optimal Transformations for Multiple Regression and Correlation", Journal of the American Statistical Association", Vol. 80, No. 391, Theory and Methods, pp. 580 619, September 1985,
- [54] J. Mangs, O. Keski-Rahkonen, "Acute Effects of Smoke from Fires on Performance of Control Electronics in NPPs", Transactions NRC Bulletin BL-75-04, Washington DC, August 2001.
- [55] (NUREG/CR-2497), "Precursors to Potential Severe Core Damage Accidents: 1969–1979, A Status Report," Volume 1 and 2, 2010.
- [56] "Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications", Volume 4 Fire-Induced Vulnerability Evaluation (FIVE-Rev1) EPRI 1011999, Final Report, May 2007.

- [57] NUREG-1824 "CFAST Computer Code Application Guidance for Documented Safety Analysis Final Report", U.S. Department of Energy, Office of Environment, July 2004.
- [58] CHAPTER 7, "Mechanical Ventilation and Smoke Control Systems", the Singapore Civil Defence Force, Oct., 2010.
- [59] K. McGrattan, H. Baum, R. Rehm, A. Hamins, G. Forney, J. Floyd & S. Hostikka, "Fire Dynamics Simulator (Version 2) Technical Reference Guide" NISTIR 6783; 44 p. Nov. 501, 2009.
- [60] X. Zhou, K. Luo & J. Williams, "Numerical studies on vortex structures in the near-field of oscillating diffusion flames", Int. J. Heat and Mass Transfer, 501,2010.
- [61] J.X. Wen, K. Kang, T. Donchev and J.M. Karwatzki, "Validation of FDS for the prediction of medium-scale pool fires," Fire Safety Journal, In Press, 2006.
- [62] C. Meneveau, T. Lund & W. Cabot, "A Lagrangian dynamic subgrid-scale model of turbulence" J. Fluid Mech vol. 319, pp. 353-385, 1996.
- [63] y. Sinai, "Comments on the role of leakages in field modeling of under-ventilated compartment fires", Fire Safety Journal, 33(7), 11-20, 1991.
- [64] "Fire Service Manual", Volume 2, "Fire Service operations compartment fires and tactical ventilation", TSO 11/97, 1997.
- [65] BRE Digest 390 "Wind around tall buildings", Jan 1994
- [66] A. Penwarden W. Afe,. "Wind Environment around Buildings", Building Establishment Report Cl/SfB 9 (E7), HMSO ISBN 0 11 670533 7, 1975...
- [67] "Computer modeling of basement fires", Communities and Local Government report, 2007.
- [68] A. Atreya, "Convection Heat Transfer", Chapters 1-4, in "SFPE Handbook of Fire Protection Engineering", National Fire Protection Association, 1988,
- [69] R. Bilger, "The Structure of Turbulent Nonpremixed Flames", Proceedings of 22nd Int. Symp. On Combustion, the Combustion Institute, 1988,.
- [70] L.Cooper, "Fire-Plume-Generated Ceiling Jet Characteristics and Convective Heat Transfer to Ceiling and Wall Surfaces in a Two-Layer Zone-Type Fire Environment", NISTIR 4705, 1991, NIST.
- [71] G. Cox, & S. Kumar, "Modeling Enclosure Fires Using CFD," Chapter 8, 3.194-3.218, SFPE Handbook for Fire Protection Engineering, 3rd Edition, 2002.
- [72] D. Drysdale, "An Introduction to Fire Dynamics", 2nd Edition, John Wiley and Sons, 1999.
- [73] O. Keski & Rahkonen et al., "Fire induced damage to electrical cables and fire growth on cables", Office of the Deputy Prime Minister, FRD Publication Number 1/2003.
- [74] W. Jones, G. Forney, R. Peacock & P. Reneke, "A Technical Reference for CFAST: Eng. Tools for Estimating Fire Growth and Smoke Transport", 2000, NIST.
- [75] K. McGrattan, H. Baum, G. Rehm, G. Forney & K. Prasad, "Fire Dynamics Simulator (Version 3) Technical Reference Guide", 2002, NIST.
- [76] EPRI/NRC-RES, "Fire PRA Methodology for Nuclear Power Facilities", Volume 1: Summary & Overview, EPRI 1011989 NUREG/CR-6850, Final Report, Electric Power Research Institute U.S. Nuclear Regulatory Commission,3420 Hill view Avenue Office of Nuclear Regulatory Research, Palo Alto, CA 94303 Washington, DC 20555-0001, 2010
- [77] M Custer, D. Bright, "Dynamics Model for Solving Room Airflow Problems", 2001, NIST.
- [78] NUREG-1521, M. Budnick, M. Azarm, R. Travis, G. Martinez-Guridi, & R. Levine, "Technical Review of Risk-Informed, Performance-Based Methods for Nuclear Power Plant Fire Protection Analyses", NRC Report Number:1521, Manuscript Completed: July 1998.
- [79] NFPA 72 Nationa Fire Alarm Code® 1999 Edition

- [80] Z. Liu1, A. Kashef, G. Lougheed, J. Z. Su and N. Benichou, "An Overview of the International Road Tunnel Fire Detection Research Project", Fire Research Program, Institute for Research in Construction, National Research Council of Canada, Ottawa, Canada, 2010
- [81] A. Alpert, Y. Hu, and Z. Chen, "A mathematical model on interaction of smoke layer with sprinkler spray", Fire Safety Journal 44(1): 96–105. 2009.
- [82] V. Novozhilov, "Computational Fluid Dynamics Modeling of Compartment Fires". Progress in Energy and Combustion Science, Elsevier Science Ltd, 2001.
- [83] NUREG-1934, M.H. Salley , R.P. Kassawara, "Nuclear Power Plant Fire Modeling Application Guide", EPRI 1019195, Draft Report for Comment, January 2010.
- [84] C. Caldwell, "Fire Engineering Performance Based Design Guidelines for Design Submittals and Reviews," Proceedings of the Second International Conference on Performance-Based Codes and Fire Safety Design Methods, Maui, Hawaii, Society of Fire Protection Engineers, Bethesda, Maryland, May, 1998.
- [85] NUREG-1805, "Fire Dynamics Tools (FDTs): Quantitative Fire Hazard Analysis Methods for the U.S. Nuclear Regulatory Commission Fire Protection Inspection Program," U.S. Nuclear Regulatory Commission, Washington, DC, December 2004.
- [86] D. Deal & D. Beyler, A. Yung, "Risk-Cost Assessment for Non-Residential Buildings," pp. 427-435 in Proceedings of Interflam 93, The Fourth International Fire Science and Engineering Conference, Interscience Communications Limited, London, 1993.
- [87] O.Budnick, Stephen M., and Carpenter, Douglas J., "An Updated International Survey of Computer Models for Fire and Smoke," SFPE Journal of Fire Protection Engineering, 2002.
- [88] S. Orszag, I. Staroselsky & V. Yakhot, "Some Basic Challenges for Large Eddy Simulation Research," Large Simulation of Complex Engineering and Geophysical Flows", Orszag, G. B. et al., 1993.
- [89] Ab. Moghadassi, F. Parvizian, S. Mohsen, "A New Approach Based on Artificial Neural Networks for Prediction of High Pressure Vapor-liquid Equilibrium", Australian Journal of Basic and Applied.
- [90] C. Luonan and K. Aihara, Chaotic simulated annealing by a neural network model with transient chaos, Neural Networks, 8(6): 915-930, 1995.
- [91] L. Ingberg, B. Rosen, "Genetic algorithms and very fast simulated re-annealing: a comparison", Journal of Mathe-matical and Computer Modeling, 16: 87-100, 1992.
- [92] K.P. Unnikrishnan, K.P. Venugopal, "A correlation-based learning algorithm for feedforward and recurrent neural networks", Neural Computations, 6: 469-490, 1994.
- [93] S. Thrun et al., The MONK's problems, "A performance comparison of different learning algorithms", Carnegi Mellon University, Technical Report CMU-CS-91-197, 1991.
- [94] M. Sonka, V. Hlavac, and R. Boyle, "Image Processing, Analysis and Machine Vision", <u>PWS</u> an Imprint of <u>Brooks and Cole</u>, 2002.
- [95] M. Binachini, S. Fanelli, M. Gori "Optimal algorithm for well-conditioned nonlinear systems of equation", www: http://www-dsi.ing.unifi.it/~marco
- [96] R. Neruda, "Hybrid Evolutionary Algorithm for Multilayer Perceptron Networks with Competitive Performance", IEEE Congress on Evolutionary Computation, 1620-1627, (CEC 2007).
- [97] J. Kennedy, R. Eberhart." Swarm Intelligence", Morgan Kaufmann Publishers, 2001.
- [98] M. SILVESTRE1, S. OIKAWA, "A Clustering Based Method to Stipulate the Number of Hidden Neurons of mlp Neural Networks: Applications in Pattern Recognition" TEMA Tend. Mat. Apl. Comput., 9, No. 2,2008.