

REFERENCES

- Acevedo, J. and Leboreiro, J. Processes synthesis and design of distillation sequences using modular simulators: a genetic algorithm framework. Computer and Chemical Engineering 28 (2004): 1223-1236.
- Androulakis, I.P., and Venkatasubramanian, V. A genetic algorithmic framework for process design and optimization. Computer and Chemical Engineering 15 (1991): 217-228.
- Back, T., Fogel, D. B., and Michalewicz, Z. Evolutionary computation 1 basic algorithms and operators. United Kingdom: Institute of Physics Publishing, 2000.
- Back, T., Fogel, D. B., and Michalewicz, Z. Evolutionary computation 2 advanced algorithms and operators. United Kingdom: Institute of Physics Publishing, 2000.
- Bo, Z. W., Hua, L. Z., and Yu Z. G. Optimization of process route by genetic algorithms. Robotics and Computer-Integrated Manufacturing 22 (2006): 180-188.
- Chelouah, R. and Siarry, P. A continuous genetic algorithm designed for the global optimization of multimodal functions. Journal of Heuristics 6 (2000): 191-213.
- De Jong, K. A. An analysis of the behavior of a class of genetic adaptive systems. Doctoral dissertation Department of Computer Science University of Michigan, 1975.
- Denbigh, K. The principles of chemical equilibrium. 3 nd ed. Cambridge: Cambridge University Press, 1971.
- Doherty, M. F., and Malone, M.F. Conceptual design of distillation systems. Singapore: McGraw-Hill, 2001.
- Dowsland, K.A., Herbert, E.A., Kendall G., and Burke E. Using tree search bounds to enhance a genetic algorithm approach to two rectangle packing problems. European Journal of Operational Research 168 (2006): 390-402.
- Edgar, T.F., Himmelblau, D.M. and Lasdon, L.S. Optimization of chemical processes. 2

- nd ed. Singapore: McGraw-Hill, 2001.
- Engelien, H. K., Larsson, T., and Skogestad, S. Implementation of optimal operation for heat integrated distillation columns. Trans IChemE 81 , Part A, (2003).
- Faure, H. Discrepance de suites associees a un systeme de numeration (en dimension s). Acta Arithmetica 41 (1982): 337-351.
- Faure, H. Good permutations for extreme discrepancy. Journal of Number Theory 42 (1992): 47-56.
- Floudas, C. A. Nonlinear and mixed-integer optimization. US.: Oxford University Press, 1995.
- Garrard, A. and Fraga, E.S. Mass exchange network synthesis using genetic algorithms. Computers and Chemical Engineering 22 (1998): 1837-1850.
- Gen, M., and Cheng, R. Genetic algorithms and engineering optimization. USA: Wiley, 2000.
- Gentle, J. E. Random Number Generation and Monte Carlo Methods. 2 nd ed. USA: Springer, 1998.
- Gmehling, J. and Oken, U. Vapor-liquid equilibrium data collection, vol. 1/1, aqueous organic systems, of chemistry data series. Frankfurt: DECHEMA, 1977.
- Goldberg, D. E. Genetic algorithms in search, optimization and machine learning. 2 nd ed. USA: Addison-Wesley, 1989.
- Grossmann, I.E. and Biegler, L.T. Retrospective on optimization. Computer and Chemical Engineering 28 (2004): 1169-1192.
- Grossmann, I.E. and Biegler, L.T. Part II. Future perspective on optimization. Computer and Chemical Engineering 28 (2004): 1193-1218.
- Haldenbilen, S. and Ceylan, H. Genetic algorithm approach to estimate transport energy demand in Turkey. Energy Policy 33 (2005): 89-98.
- Halton, J. H. On the efficiency of certain quasi-random sequences of points in evaluating

- multi-dimensional integrals. Numerische Mathematik 2 (1960): 84-90.
- Hammersley, J. M. Monte Carlo methods for solving multivariable problems. Proceedings of the New York Academy of Science 86 (1960): 844-874.
- Haupt, R. and Haupt, S. Practical genetic algorithm. 2 nd ed. USA: John Wiley & Sons, 2004.
- Holland, J. H. Adaptation in natural and artificial systems. USA: The university of Michigan Press, 1975.
- Iman, R. L. and Conover, W. J. A distribution-free approach to inducing rank correlation among input variables. Communications in Statistics B11 (1982): 311-334.
- Joines, J. and Houck, C. On the use of non-stationary penalty functions to solve constrained optimization problems with genetic algorithms. In 1994 IEEE International Symposium Evolutionary Computation FI (1994): 579-584.
- Jung, J. H., Lee, C. H., and Lee, I. B. A genetic algorithm for scheduling of multiproduct batch processes. Computer and Chemical Engineering 22 (1998): 1725.
- Kalagnanam, J. R., Diwekar, U. M. An efficient sampling technique for off-line quality control. Technometrics 39 (1997): 308-319.
- Kordabadi, H. and Jahanmiri, A. Optimization of methanol synthesis reactor using genetic algorithms. Chemical Engineering Journal 108 (2005): 249-255.
- Lavric, V., Iancu, P., and Plesu, V. Genetic algorithm optimisation of water consumption and wastewater network topology. Journal of Cleaner Production 13 (2005): 1405-1415.
- Majumdar, S. and Mitra, K. Modeling of a reaction network and its optimization by genetic algorithm. Chemical Engineering Journal 100 (2004): 109-118.
- Michalewicz, Z. Genetic algorithms + data structure = evolution programs.USA: Springer-Verlag, 2004.
- McKay M.D., Conover W.J., and Beckman R.J. A comparison of three methods for

- selecting input variables in the analysis of output from a computer code. Technometrics 21 (1979): 239-245.
- Morokoff, W. J. and Caflisch, R. E. Quasi-Monte Carlo integration. Journal of Computational Physics 122 (1995): 218-230.
- Niederreiter, H. Random Number Generation and Quasi-Monte Carlo Methods. Philadelphia: SIAM, 1992.
- Paskov, S. H. and Traub, J.F. Faster valuation of financial derivatives: a promising alternative to Monte Carlo. The Journal of Portfolio Management 22 (1995): 113-120.
- Saliby, E. Descriptive Sampling: a Better Approach to Monte Carlo simulation. Journal of the Operational Research Society 41 (1990): 1133-1142.
- Seader, J.D. and Henley, E.J. Separation process principles. New Jersey: John Wiley & Sons, 1998.
- Sen, S., Narasimhan, S., and Deb, K. Sensor network design of linear processes using genetic algorithms. Computer and Chemical Engineering 22 (1998): 385.
- Shi, X.H., Liang, Y.C., Lee, H.P., Lu, C. and Wang, L.M. An improved GA and novel PSO-GA-based hybrid algorithm. Information Processing Letter 93 (2005): 255-261
- Shin, D.J., Kim, J.O., Kim, T.K., Choo, J.B. and Singh, C. Optimal service restoration and reconfiguration of network using Genetic-Tabu algorithm. Electric Power Systems Research 71 (2004): 145-152.
- Smith, J.M. and Van Ness H.C. Introduction to chemical engineering thermodynamics.. 5 nd ed. New York: McGraw-Hill, 2004.
- Smith, T. and De jong, K. A. Genetic algorithms applied to the calibration of information driven models of US migration patterns. Proceedings of the 12th Annual Pittsburgh Conference on Modelling and Simulation 1981: 955-959.

- Son, J. S., Lee, D. M., Kim, I. S., and Choi, S. K. A study on genetic algorithm to select architecture of a optimal neural network in the hot rolling process. Journal of Materials Processing Technology 153-154 (2004): 643-648.
- Tan, X. and Bhanu, B. Fingerprint matching by genetic algorithms. Pattern Recognition 39 (2006): 465-477.
- Tayal, M.C., Fu, Y., and Diwekar, U.M. Optimal design of heat exchangers: A genetic algorithm framework. Industrial and Engineering Chemistry Research 38 (1999): 456-467.
- Topcuoglu, H., Coruta, F., Ermisb, M. and Yilmaza, G. Solving the uncapacitated hub location problem using genetic algorithms. Computers & Operations Research 32 (2005): 967-984.
- Van Ness, H.C. and Abbott M.M. Classical thermodynamics of nonelectrolyte solutions. New York: McGraw-Hill, 1982.
- Wang, K., Qian, Y., Yuan, Y., and Yao, P. Synthesis and optimization of heat integrated distillation systems using an improved genetic algorithm. Computers and Chemical Engineering 23 (1998): 125-136.

ศูนย์วิทยบรังษยการ
จุฬาลงกรณ์มหาวิทยาลัย

VITA

Mr. Chirdpong Preechakul was born in Bangkok, Thailand, on October 29, 1982. He received a bachelor Degree in Science from Chulalongkorn University in 2004. He continued his education in Engineering at Chulalongkorn University. The degree of Master of Engineering in Chemical Engineering will be conferred in 2006.

