Associate Professor Surapong Auwatanamongkol

School of Applied Statistics,

National Institute of Development Administration (NIDA)

118 Serithai Road, Klongjan, Bangkapi,

Bangkok, Thailand 10240.

Education

Ph.D. (Computer Science), Southern Methodist University, U.S.A.

M.S. (Computer Science), Georgia Institute of Technology, U.S.A.

B.Eng. (Electrical Engineering), Chulalongkorn University, Thailand.

Working Experiences

Dean, School of Applied Statistics, NIDA, 2007-2010

Associate Dean for Planning and Development, School of Applied Statistics, NIDA, 2006 – 2007

Associate Dean for Academic Affairs, School of Applied Statistics, NIDA, 1999 – 2005

Director of Computer Center, School of Applied Statistics, NIDA, 1995 - 1999, 2006 - 2007

Faculty member of Department of Computer Science, School of Applied Statistics, NIDA, 1992 – present

Director of Ph.D. Program in Computer Science and Information Systems, School of Applied Statistics, NIDA, 2011– 2016, 2017 - present

Visiting Faculty at Department of Computer Science, Asian Institute of Technology (AIT), 1991

Research Areas

Evolutionary Computation

Machine Learning

Pattern Recognition

Data Mining

Image Processing

Computer Archtecture and Parallel Processing

Selected Publications

1. Vipa, Thananant, and Surapong Auwatanamongkol, Supervised Clustering based on a Multi-objective Genetic Algorithm, Pertanika Journal of Science and Technology, Vol. 27, No. 1, pp. 81-121, January, 2019.
2. Ferdin, Joe John Joseph, and Surapong Auwatanamongkol, A crowding multi-objective genetic algorithm for image parsing, Neural Computing and Applications, Vol. 27, Issue 8, pp. 2217-2227, November, 2016.
3. Ferdin, Joe John Joseph, and Surapong Auwatanamongkol, Image Parsing using Genetic Algorithm and Local Features Derived from 2-Grams of Visual Words of Clockwise Neighboring Superpixels, International Journal of Advancements in Computing Technology, Vol. 7, No. 1, pp. 41-49, 2015.

4. Mohammad Shahidul, and Surapong Auwatanamongkol, Facial Expression Recognition Using Local Arc Pattern, Trends in Applied Sciences Research, Vol. 9, Issue. 2, pp. 113-120, January, 2014
5. Mohammad Shahidul, and Surapong Auwatanamongkol, Gradient Direction Pattern : A Gray Scale Invariant Uniform Local Feature Representation for Facial Expression Recognition, Journal of Applied Science, Vol. 13, No.6, pp. 837-845, 2013.
6. Mohammad Shahidul Islam, and Surapong Auwatanamongkol, A Novel Feature Extraction Technique for Facial Expression Recognition, International Journal of Computer Science Issues, Vol. 10, Issue. 1, Num. 3, January, 2013.
7. Kannapha Amaruchkul, and Surapong Auwatanamongkol, Computing Nonstationary (s, S) Inventory Policies via Genetic Algorithm, Songklanakarin Journal of Science and Technology, 35(1), 115-211, January-February, 2013.
8. Pornpimol Bungkomkhun, and Surapong Auwatanamongkol, Grid-based Supervised Clustering Algorithm using Greedy and Gradient Descent Methods to Build Clusters, International Journal of Computer Science Issues, Vol. 9. Issue. 3, Num. 2, May, 2012.
9. Fuangfar Pensiri, and Surapong Auwatanamongkol, A Lossless Image Compression Algorithm using Predictive Coding Based on Quantized Colors, WSEAS Transactions on Signal Processing, Vol. 8, Issue. 2, April, 2012.
10. Surapong Auwatanamongkol, A Fitness-Based Multi-Parent Crossover Operator with Probabilistic Selection, International Journal on Artificial Intelligence Tools, Vol. 21. Issue. 1, January, 2012.
11. Somkid Soottitanwat and Surapong Auwatanamongkol, Texture Classification using an Invariant Texture Representation and a Tree

Matching Kernel, Internation Journal of Computer Science Issues, Vol. 8, Issue 1, January, 2011.

12. Tawee Chimsuk, and Surapong Auwatanamongkol , An Incremental Framework for Thai-English Machine Translation Systems using a LFG Tree Structure as an Interlingua, International Journal of Computer Science and Engineering, Vol. 2, No. 2, January, 2010.
13. Tawee Chimsuk, and Surapong Auwatanamongkol, A Thai to English Machine Translation using Thai LFG Tree structure as Interlingua, World Academy of Science, Engineering and Technology Conference, December, 2009
14. Pornpimol Bungkomkhun, and Surapong Auwatanamongkol, Grid-based Supervised Clustering – GBSC, World Academy of Science, Engineering and Technology Conference, December, 2009.
15. S. Deelers and S. Auwatanamongkol, Enhancing K-Means Algorithm with Initial Cluster Centers Derived from Data Partitioning along the Data Axis with the Highest Variance, International Journal in Computer Science, Volume 2, Number 4, Fall 2007, page 247-252.
16. Apirak Jirayusakul and Surapong Auwatanamongkol, A Supervised Growing Neural Gas Algorithm for Cluster Analysis, International Journal of Hybrid Intelligent Systems, Vol. 4, No.2, 2007.
17. Surapong Auwatanamongkol, Inexact Graph Matching using a Genetic Algorithm for Image Recognition, Pattern Recognition letter, Vol. 28, issue 12, 2007.
18. Nalerk Sriwachirawat and Surapong Auwatanamongkol, On Approximating K-MPE of Bayesian Networks using Genetic Algorithm, IEEE International Conference on Cybernetics and Intelligent Systems, 2006.
19. Surapong Auwatanamongkol, Inexact Pattern Matching using Genetic Algorithm, Genetic and Evolutionary Computation Conference, 2005.

20. Apirak Jirayusakul, Surapong Auwatanamongkol, Pipat Hiranvanichakorn, A Modified Forward-only Counter propagation Network with Fast Learning Algorithm, 1st Thailand Computer Science Conference, December, 2004.
21. Jitwadee Chaiyakarn, Ohm Sornil and Surapong Auwatanamongkol, Image Segmentation using Bayesian Network and Gaussian Mixture Model, National Conference on Applied Statistics, 2004.
22. Y. Sirisathitkul, S. Auwatanamongkol, B. Uyyanonvara, Fast color Image Quantization using Squared Euclidean Distance of Adjacent Color Points Along the Highest Color Variance Axis, 17th International Conference on Pattern Recognition (ICPR'04), 2004, Volume I.
23. Y. Sirisathitkul, S. Auwatanamongkol, B. Uyyanonvara, Color Image Quantization using Distances between Adjacent Colors along the Color Axis with Highest Color Variance, Pattern Recognition letter, Vol. 25 (2004), pp. 1025-1043.
24. Somnuk Sinthupuan and Surapong Auwatanamongkol, Thai Sentence Parsing using Genetic Programming, International Conference on Intelligent Technologies, 2003.
25. Surapong Auwatanamongkol, A Distributed Expert System in Computer Network Environments, Thai Journal of Development Administration, Vol.38, No.1, January-March 1998.
26. Surapong Auwatanamongkol, Andrezj Ciepielewski, and Prasenjit Biswas, Cut and Side-Effects in a Data-Driven Implementation of Prolog, New Generation Computing, 12 (1994), pp. 223-250.
27. Surapong Auwatanamongkol, and Prasenjit Biswas, A hybrid Architecture and Adaptive Scheduling for Parallel Execution of Logic Programs, Proceedings of the 1991 International Conference on Parallel Processing, pp. I-17 - I-20.

Books

Data Mining, Surapong Auwatanamongkol, National Institute of Development Administration Printing Office, 2016, First Edition