Curriculum Vitae

Wg.Cdr.Dr. TOSSAPON BOONGOEN

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Education and Training

Oct 2014 – Sep 2015	Air Command and Staff College, Royal Thai Air Force, Thailand
Apr-Aug 2011	Squadron Leader School, Royal Thai Air Force, Thailand
Jun 2009 – Aug 2010	Research Fellow, at Aberystwyth University, UK
Jun 2007 – May 2009	Postdoctoral in Artificial Intelligence (Application of Artificial Intelligence to Anti-Terrorism), at Aberystwyth University
Oct 1998 – Oct 2003	PhD in Artificial Intelligence (Text Mining and Natural Language Processing), at Cranfield University, UK

Employment

Jun 2017 – Present	Lecturer, School of Information Technology, Mae Fah Luang University, Thailand
Oct 2016 – May 2017	Associate Professor, Department of Mathematics and Computer Science, Royal Thai Air Force Academy (RTAFA), Thailand
Oct 2013 – Sep 2016	Assistant Professor, Department of Mathematics and Computer Science, RTAFA
Sep 2010 – Sep 2013	Lecturer, Department of Mathematics and Computer Science, RTAFA
Jun 2009 – Aug 2010	Research Fellow, Department of Computer Science, Aberystwyth University, UK
Jun 2007 – Jun 2009	Postdoctoral Research Associate, Department of Computer Science, Aberystwyth University
Jan 2004 – May 2007	Lecturer, Department of Mathematics and Computer Science, RTAFA

Research Experiences

Research Projects and Grants:

- PI for research project on 'Behavior modeling for suspect car detection' (Research Grant of Defence Technology Institute, Sep 17 – Aug 18)

- Co-I for research project on 'Big data and machine learning for GOTO data handling' (Research Grant of STFC-NARIT Newton Fund, Feb 17 – Jan 18)

- Co-I for research project on 'Smart Airbase Security' (Research Grant of Royal Thai Air Force, Apr 17 – Mar 18)

- PI for research project on 'Constrained optimization for adaptive UAV (Unmanned Aerial Vehicle) design' (Research Grant of Royal Thai Air Force, Oct 15 – Sep 16)

- Senior Research Consultant for research project on 'Automatic Vehicle Recognition System' (Research Grant of Defence Technology Institute, Oct 14 – Sep 17)

- PI for project on 'Tactical CCTV Image Analysis & Interpretation for Security Awareness and Anti-Terrorism' (Research Grant by Ministry of Defense, Oct 12 – Sep 14)

- PI for research project on 'Decision Support System for Crime Investigation and Anti-Terrorism: Link Analysis and Evidence Ontology' (Research Grant by Thailand Toray Science Foundation, Apr 14 – Mar 16)

- Co-I for research project on 'Analysis of Student Academic Behavior using Data Mining Techniques' (Research Grant by Mae Fah Luang University, Oct 13 – Feb 14)

- Co-I for project on 'Advanced Ensemble Approach to Improved Face Clustering & Identity Recognition' (Research Grant by Ministry of Science and Technology, Oct 14 – Sep 15)

Academic Supervision of PhD Research Projects:

- `*Cluster-based approach to impute missing values in microarray data*', at Mahanakorn Technology University, Thailand

- `*Behavior modeling for suspect vehicle detection*', at Mahanakorn Technology University, Thailand

- `*A Noise-induced generation of cluster ensemble*', at Mae Fah Luang University, Thailand

- `*An enhanced discretization method*', at Mae Fah Luang University, Thailand

- `*Fuzzy compositional modeling*', at Aberystwyth University, UK

- `*Link-based cluster ensembles*', at Aberystwyth University, UK

Program Committee of Conferences:

- IEEE International Conference on System, Man and Cybernetics, 2012-17
- International Conference on Soft Computing and Intelligent Systems, 2012-14
- IAENG International Multi Conferences of Engineers and Computer Scientists, 2013-17
- World Conference on Information Systems and Technologies, 2013-17
- International Conference on Fuzzy Systems and Knowledge Discovery, 2014-17
- International Conference on Advanced Data and Information Engineering, 2015-17
- Portuguese Conference on Artificial Intelligence, 2015-17
- Asian Conference on Defence Technology, 2016-17
- International Conference on Computational Intelligence in Information Systems, 2016-17

Editor/Reviewer of Journal Publications:

- Associate editor, *Applied Microbiology and Biotechnology (AMB) Express*, Springer (from Jan 2011)

- Editor, American Journal of Intelligent Systems, Scientific and Academic Publishing (from Jun 2012)

- Editor, *International Journal of Collaborative Intelligence*, Inderscience (from Jan 2013)

- Editor, *International Journal of Information and Decision Sciences*, Inderscience (from Apr 2014)

- Editor, *International Journal of Intelligent Systems Technologies and Applications*, Inderscience (from Mar 2015)

- Reviewer of journal publication for *IEEE Transactions on Systems, Man and Cybernetics (Part B)*, *IEEE Transactions on Fuzzy Systems*, *Knowledge Based Systems, Expert Systems with Applications, International Journal of Machine Learning and Cybernetics,* and *Neural Computing and Applications*.

List of Selected Publications

T. Boongoen, Q. Shen and C. Price, "Disclosing false identity through hybrid link analysis," AI and Law, 18(1): 77-102, 2010.

T. Boongoen and Q. Shen, "Nearest-neighbor guided evaluation of data reliability and its applications," IEEE Transactions on Systems, Man and Cybernetics, Part B, 40(6): 1622 – 1633, 2010.

N. Iam-on, **T. Boongoen** and S. Garrett, "LCE: A link-based cluster ensemble method for improved gene expression data analysis," Bioinformatics, 26(12): 1513-1519, 2010.

X. Fu, **T. Boongoen** and Q. Shen, "Evidence directed generation of plausible crime scenarios with identity resolution," Applied Artificial Intelligence, 24(4): 253-276, 2010.

T. Boongoen, C. Shang, N. Iam-on and Q. Shen, "Extending Data Reliability Measure to a Filter Approach for Soft Subspace Clustering," IEEE Transactions on Systems, Man and Cybernetics, Part B, 41(6): 1705-1714, 2011.

T. Boongoen, Q. Shen and C. Price, "Fuzzy qualitative link analysis for academic performance evaluation," International Journal of Uncertainty, Fuzziness and Knowledge Based Systems, 19(3): 559-586, 2011.

N. Iam-on, **T. Boongoen**, S. Garrett and C. Price, "Link-based approach to the cluster ensemble problem," IEEE Transactions on Pattern Analysis and Machine Intelligence, 33(12): 2396-2409, 2011.

N. Iam-on, **T. Boongoen**, S. Garrett and C. Price, "A link-based approach to cluster ensemble approach for categorical data clustering," IEEE Transactions on Knowledge and Data Engineering, 24(3): 413-425, 2012.

Q. Shen and **T. Boongoen**, "Fuzzy Orders-of-Magnitude Based Link Analysis for Qualitative Alias Detection," IEEE Transactions on Knowledge and Data Engineering, 24(4): 649-664, 2012.

N. Iam-On and **T. Boongoen**, "A New Locally Weighted K-Means for Cancer-Aided Microarray Data Analysis", *Journal of Medical Systems*, 36(1-Suppl): 43-49, 2012.

Q. Shen and **T. Boongoen**, "Social Network Inspired Approach to Intelligent Monitoring of Intelligence Data", In *Social Network Mining, Analysis and Research Trends: Techniques and Applications*, edited by I. H. Ting, T. P. Hong and L. S. L. Wang, IGI Global Publisher, pp. 79-100, 2012.

N. Iam-On, **T. Boongoen**, S. Garrett and C. Price. "New Cluster Ensemble Approach to Integrative Biological Data Analysis", *International Journal of Data Mining and Bioinformatics*, 8(2): 150-168, 2013.

N. Iam-On and **T. Boongoen**, "Pairwise Similarity for Cluster Ensemble Problem: Link-Based and Approximate Approaches", *Springer Transactions on Large-Scale Data and Knowledge-Centered Systems*, 9: 95-122, 2013.

N. Iam-On, **T. Boongoen** and Nuttawut Kongkotchawan, "A New Link-Based Method to Ensemble Clustering and Cancer Microarray Data Analysis", *International Journal of Collaborative Intelligence*, 1(1): 45-67, 2014.

N. Iam-On and **T. Boongoen**, "Soft Subspace Clustering for Cancer Microarray Data Analysis: A Survey", In *Global Trends in Intelligent Computing Research and Development*, edited by B. K. Tripathy and D. P. Acharjya, IGI Global Publisher, pp. 131-145, 2014.

N. Iam-On and **T. Boongoen**, "Comparative Study of Matrix Refinement Approaches for Ensemble Clustering", *Machine Learning*, 98(1-2): 269-300, 2015.

N. Iam-On and **T. Boongoen**, "Diversity-Driven Generation of Link-Based Cluster Ensemble and Application to Data Classification", *Expert Systems with Applications*, 42(21): 8259-8273, 2015.

P. Keerin, W. Kurutach, **T. Boongoen**, S. Garrett and C. Price. "A cluster-directed framework for neighbour based imputation of missing value in microarray data", *International Journal of Data Mining and Bioinformatics*, 15(2): 165-193, 2016.

N. Iam-On and **T. Boongoen**, "Improved Student Dropout Prediction in Thai University using Ensemble of Mixed-Type Data Clusterings", *International Journal of Machine Learning and Cybernetics*, Springer (in press).