

Lee Chien Sing

Professor

E-mail: chiensingl@sunway.edu.my

ResearcherID: N-5930-2016

Favourite quote: *Standing on the shoulders of giants*



Education:

Ph.D Information Technology, Multimedia University, Malaysia

M. Education, Universiti Malaya, Malaysia

B. Education (TESL), Universiti Putra Malaysia, Malaysia

Fulbright Visiting Scholar (Georgia Tech, Lehigh University)

IEEE Senior Member (Member number: 41466049; since September 2007)

Teaching:

E-commerce, Information Systems Analysis and Design

Brief Employment History:

Universiti Tunku Abdul Rahman, Malaysia: Associate Professor (2013-2015)

National Central University, Taiwan: Associate Professor (2011-2013)

Multimedia University, Malaysia: Associate Professor (1997-2011)

Research Interests:

Problem-Based Learning; Design; Cognitive Systems; Human-Computer Interaction; Data Mining

Selected Publications

1. G. Y. Chan, F. F. Chua and **C. S. Lee**, "Intrusion Detection and Prevention of Web Service Attacks for Software as a Service: Fuzzy Association Rules vs Fuzzy Associative Patterns," *Journal of Intelligent and Fuzzy Systems*, 31, pp. 749–764 [**SCI 1.812**]
2. S. B. Y. Lau, **C. S. Lee** and Y. P. Singh, "A Folksonomy-based Lightweight Resource Annotation Metadata Schema for Personalized Hypermedia Learning Resource Delivery", *Interactive Learning Environments*, 2015 [**SSCI 1.302**] <http://dx.doi.org/10.1080/10494820.2012.745429>
3. G. Y. Chan, **C. S. Lee** and S. H. Heng, "Defending Against XML-related Attacks in E-commerce Applications with Predictive Fuzzy Associative Rules," *Applied Soft Computing*, 24, 2014, pp. 142-157 [**SCI 2.679**].
4. G. Y. Chan, **C. S. Lee** and S. H. Heng, "Discovering Patterns and Increasing Sensitivity Analysis of XML-related Attacks", *Journal of Networks and Computer Applications*, 36, 2013, pp. 829–842 [**SCI 1.772**].
5. G. Y. Chan, **C. S. Lee** and S. H. Heng, "Policy-enhanced ANFIS model to counter SOAP-related attacks", *Knowledge-based Systems*, 5, 2012, pp. 64–76. [**SCI IF: 3.058**]

6. A. H. L. Lim and **C. S. Lee**, "Hybrid genetic algorithm and association rules for mining workflow best practices", *Expert Systems with Applications*, 39(12), 2012 pp. 10544-10551 [**SCI IF:1.965**]
7. S. X. Y. Chong and **C. S. Lee**, "Storyworld: Developing a framework to improve creative writing", *Educational Technology Research & Development*, 60, 2012. pp. 639–657 [Special issue on personalized learning] [**SSCI IF: 0.919**] doi 10.1007/s11423-012-9242-9
8. S. C. Haw and **C. S. Lee**, "Data storage practices and query processing in XML databases: A survey", *Knowledge-based Systems*, 24 (8), 2011, pp. 1317-1340. [**SCI IF: 3.058**]
9. **C. S. Lee** and J. L. Kolodner, "Scaffolding students' development of creative design skills: A curriculum reference model", *Educational Technology & Society*, 14 (1), 2011, pp. 3-15. [**SSCI IF 1.34**].
10. A. H. L. Lim and **C. S. Lee**, "Processing online analytics with classification and association rule mining", *Knowledge-based Systems*, 23 (3), 2010, pp. 248-255. [**SCI IF: 3.058**].
11. S. C. Haw, **C. S. Lee** and N. Mustapha, "Bridging XML and relational databases: Mapping choices and performance evaluation", *IETE Technical Review*, 27 (4), 2010 pp. 308-317. [**SCI IF: 0.925**].
12. S. C. Haw and **C. S. Lee**, "Node labeling schemes in XML query optimization: A survey and trends", *IETE Technical Review*, 26 (2), 2009, pp. 89-101 [**SCI IF: 0.925**].
13. S. C. Haw and **C. S. Lee**, "Efficient pre-processes for fast storage and query retrieval in native XML database," *IETE Technical Review*, 26 (1), 2009, pp. 26-38. [**SCI IF: 0.925**].
14. S. C. Haw and **C. S. Lee**, "Extending path summary and region encoding for efficient structural query processing in native XML databases," *Journal of Systems and Software*, Elsevier, 82 (6), 2009, pp. 1025-1035. [**SCI IF: 1.245**].
15. F. F. Chua and **C. S. Lee**, "Collaborative learning using service-oriented architecture-A framework design," *Knowledge-based Systems*, Special issue on Artificial Intelligence in Blended Learning, 22 (4), 2009, pp. 271-274. [**SCI IF: 3.058**].
16. S. C. Haw and **C. S. Lee**, "Twig X-Guide: An efficient twig pattern matching system extending DataGuide indexing and region encoding labeling", *Journal of Information Science and Engineering*, Academia Sinica, Taiwan, 25(2), 2009, pp. 603-617 [**SCI IF: 0.333**].
17. **C. S. Lee**, "Diagnostic, predictive and compositional modeling with data mining in integrated learning environments," *Computers & Education*, Elsevier, 49 (3), 2007, pp. 562-580. [**SSCI/SCI Expanded IF: 2.630**]
18. C. C. Kiu and **C. S. Lee**, "Ontology mapping and merging through OntoDNA for learning object reusability", *Educational Technology & Society*, 9 (3), 2006, pp. 27-42 [**SSCI IF: 1.34**]
19. C. C. Kiu and **C. S. Lee**, "E-Commerce market trends: a case study in leveraging web2.0 technologies to gain and improve competitive advantage", *International Journal of Business Information Systems*. (in press)
20. S. P. P. Chin, E. Tsui, and **C. S. Lee**, "Enhancing learning effectiveness by adopting a knowledge-based usability guideline," *VINE: Journal of Information and Knowledge Management Systems*., 46 (1), 2016, pp. 123-152.
21. S. Chin and **C. S. Lee**, "Innovative hint-scaffolded KM e-learning framework to increase meaningful learning and multi-dimensional thinking," *Design and Technology Education: An International Journal*, 19(3), pp. 43-70.
22. S. B. Y. Lau and **C. S. Lee**, ""Methodology and System Design for Implementing Context-Adaptive Service-Oriented Web-based Learning," *International Journal of Mobile Learning and Organization (IJMLO)*, Inderscience, 3 (2), 2009, pp. 164-183.
23. C. C. Kiu and **C. S. Lee**, "Interoperating ontologies of organizational memory through hybrid unsupervised data mining," *VINE: Journal of Information and Knowledge Management Systems*, 2009, pp. 353-375.

24. S. C. Haw and **C. S. Lee**, "Structural query optimization in native XML databases: A hybrid approach", *Journal of Applied Sciences*, 7 (20), 2008, pp. 2934-2946.
25. A.H. L. Lim and C. S. Lee, "Integrated Model-Driven Business Evaluation Methodology for Strategic Planning," *International Journal on Business Information System*, 3 (4), 2008, pp. 333-355.
26. **C. S. Lee**, "Improving Learning Design practices through Strategic Integrated Evaluation," *International Journal of Continuing Engineering Education and Life-long Learning*, 18 (1), 2008, pp. 139-153.
27. S. C. Haw and **C. S. Lee**, "TwigX-Guide: Twig Query Pattern Matching for XML Trees", *American Journal of Applied Sciences*, 5 (9), 2008, pp. 1212-1218.
28. S. C. Haw and **C. S. Lee**, "TwigINLAB: A Decomposition-Matching-Merging Approach to Improving XML Query Processing", *American Journal of Applied Sciences*, 5 (9), 2008, pp. 1199-1205.
29. S. C. Haw and **C. S. Lee**, "INLAB: Improving XML Path Query Optimization," *Journal of Applied Computer Science*. Poland, 2007, 15, pp. 47-61.
30. **C. S. Lee** and A. H. L. Lim, "Layered and weighted methodology to workflow assessment," *International Journal of Electronic Business*, 5 (4), 2007, pp. 380-400.
31. S. C. Haw and **C. S. Lee**, "Stack-based pattern matching algorithm for XML Query Processing," *Journal of Digital Information Management*, 5 (3), 2007, pp. 167-175.
32. F. F. Chua and **C. S. Lee**, "The effect of learning goals and modelling on virtual collaborations: A case study on Merlin agent-assisted collaborative concept map", *International Journal of Web Based Communities*, 3 (2), 2007, pp. 229-248.