

Curriculum Vitae

Mei-Ling Shyu, Ph.D.
Professor and Associate Chair
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HIGHER EDUCATION

1. Institutional (institution; degree; date conferred):
Purdue University; Ph.D. Electrical and Computer Engineering; August 1999
Purdue University; Master of Science (MS) in Restaurant, Hotel, Institutional and Tourism; August 1997
Purdue University; Master of Science in Electrical Engineering (MSEE); May 1995
Purdue University; Master of Science (MS) in Computer Science; August 1992

EXPERIENCE

2. Academic (institutions; rank/status; dates):
 - University of Miami, Associate Chair, 10/2013-present
 - University of Miami, Professor, 06/2013-present
 - University of Miami, Associate Professor, 06/2005-05/2013
 - University of Miami, Tenure-track Assistant Professor, 01/2000-05/2005

PUBLICATIONS

3. Books and monographs published:
 - Volumes Edited:
 - 1) Co-Editor: *Proceedings of the 2005 IEEE International Conference on Information Reuse and Integration (IRI-2005)*, August 15-17, 2005, Las Vegas, Nevada, USA, IEEE ISBN: 0-7803-9093-8.
 - 2) Co-Editor: *Proceedings of the Second ACM International Workshop on Multimedia Databases (MMDB 2004)*, November 13, 2004, Washington, DC, USA, ACM ISBN: 1-58113-975-6.
 - 3) Co-Editor: *Proceedings of the First ACM International Workshop on Multimedia Databases (MMDB 2003)*, November 7, 2003, New Orleans, Louisiana, USA, ACM ISBN: 1-58113-726-5.
 - Books:
 - 1) Shu-Ching Chen and Mei-Ling Shyu, *Multimedia Data Engineering Applications and Processing*, IGI Global, ISBN13: 9781466629400, ISBN10: 1466629401, EISBN13: 9781466629417, February 2013, 350 pages.
 - 2) Shu-Ching Chen and Mei-Ling Shyu, *Methods and Innovations for Multimedia Database Content Management*, IGI Global, ISBN13: 9781466617919, ISBN10: 1466617918, EISBN13: 9781466617926, June 2012, 363 pages.
 - Book Chapters:
 - 1) Yilin Yan, Qiusha Zhu, Mei-Ling Shyu, and Shu-Ching Chen, "Classifier Fusion by Judgers on Spark Clusters for Multimedia Big Data Classification," Edited by Stuart H. Rubin and Thouraya Bouabana-Tebibel, *Advances in Intelligent Systems and Computing*, Vol. 561, pp. 91-108, Springer Verlag, 2018, ISBN: 978-3-319-56156-1.
 - 2) Chao Chen and Mei-Ling Shyu, "Integration of Semantics Information and Clustering in Binary-class Classification for Handling Imbalanced Multimedia Data," Edited by Tansel Ozyer, Keivan Kianmehr, Mehmet Tan, and Jia Zeng, *Information Reuse and Integration in Academia and Industry*, Chapter 19, Springer Verlag, 2013, ISBN: 978-3-7091-1537-4.
 - 3) Qiusha Zhu, Mei-Ling Shyu, and Shu-Ching Chen, "Discriminative Learning Assisted Video Semantic Concept Classification," *Multimedia Security and Steganography*, Edited by Frank Shih, Chapter 2, CRC Press, 2012.
 - 4) Zifang Huang and Mei-Ling Shyu, "Long-Term Time Series Prediction Using k-NN Based LS-SVM Framework with Multi-Value Integration," Edited by Tansel Ozyer, Keivan Kianmehr and Mehmet Tan, *Recent Trends in Information Reuse and Integration*, Chapter 9, pp. 191-209, Springer Verlag, 2012.
 - 5) Min Chen, Shu-Ching Chen, and Mei-Ling Shyu, "Content-based Retrieval of Video," Edited by P. Sheu, H. Yu, C.V. Ramamoorthy, A. Joshi, and L. Zadeh, *Semantic Computing*, Chapter 3, pp. 33-48, IEEE Press/Wiley, May 2010, ISBN: 978-0-470-46495-3.

- 6) Na Zhao, Min Chen, Shu-Ching Chen, and Mei-Ling Shyu, "User Adaptive Video Retrieval on Mobile Devices," Edited by Laurence T. Yang, Agustinus Borgy Waluyo, Jianhua Ma, Ling Tan and Bala Srinivasan, *Mobile Intelligence: When Computational Intelligence Meets Mobile Paradigm*, Chapter 21, pp. 488-509, John Wiley & Sons Inc, February 2010. ISBN: 978-0-470-19555-0.
 - 7) Mei-Ling Shyu, Zifang Huang, and Hongli Luo, "Efficient Mining and Detection of Sequential Intrusion Patterns for Network Intrusion Detection Systems," Edited by J.P. Tsai and P.S. Yu, *Machine Learning in Cyber Trust: Security, Reliability, Privacy*, pp. 133-154, Springer, 2009, ISBN 978-0-387-88734-0.
 - 8) Mei-Ling Shyu and Varsha Sainani, "A Multiagent-based Intrusion Detection System with the Support of Multi-Class Supervised Classification," Edited by Longbing Cao, *Data Mining and Multiagent Integration*, Chapter 8, pp. 127-142, Springer, 2009, ISBN: 978-1-4419-0521-5.
 - 9) S.P. Subasingha, J. Zhang, K. Premaratne, M.-L. Shyu, M. Kubat, and K.K.R.G.K. Hewawasam, "Using Association Rules for Classification from Databases Having Class Label Ambiguities: A Belief Theoretic Method," Edited by Tsau Young Lin, Ying Xie, Anita Wasilewska, and Churn-Jung Liao, *Data Mining: Foundations and Practice*, pp. 539-562, Springer-Verlag, 2008, ISBN 978-3-540-78487-6.
 - 10) Min Chen, Shu-Ching Chen, Mei-Ling Shyu, and Chengcui Zhang, "Video Event Mining via Multimodal Content Analysis and Classification," Edited by Valery A. Petrushin and Latifur Khan, *Multimedia Data Mining and Knowledge Discovery*, Springer-Verlag, 2007, ISBN: 978-1-84628-436-6.
 - 11) Mei-Ling Shyu, Shu-Ching Chen, Kanoksri Sarinapakorn, and LiWu Chang, "Principal Component-based Anomaly Detection Scheme," Edited by T.Y. Lin, S. Ohsuga, C.J. Liao, and X. Hu, *Foundations and Novel Approaches in Data Mining*, pp. 311-329, Springer-Verlag, Vol. 9, 2006, ISBN: 3-540-28315-3.
 - 12) James B.D. Joshi, Mei-Ling Shyu, Shu-Ching Chen, Walid Aref, and Arif Ghaffoor, "A Multimedia-Based Threat Management and Information Security Framework," Edited by Elena Ferrari and Bhavani Thuraisingham, *Web and Information Security*, pp. 215-240, Idea Group Publishing, 2006, ISBN: 159140589-0.
 - 13) Shu-Ching Chen, Mei-Ling Shyu, and Chengcui Zhang, "Innovative Shot Boundary Detection for Video Indexing," Edited by Sagarmay Deb, *Video Data Management and Information Retrieval*, pp. 217-236, Idea Group Publishing, 2005, ISBN: 1-59140546-7.
 - 14) Mei-Ling Shyu, Shu-Ching Chen, and Chengcui Zhang, "A Stochastic Content-Based Image Retrieval Mechanism," *Multimedia Systems and Content-based Image Retrieval*, Edited by Sagarmay Deb, Idea Group Inc., publisher of the Idea Group Publishing, Information Science Publishing and IRM Press imprints, 2004, ISBN: 1-59140-265-4.
 - 15) Xin Huang, Shu-Ching Chen, Mei-Ling Shyu and Chengcui Zhang, "Mining High-Level User Concepts with Multiple Instance Learning and Relevance Feedback for Content-Based Image Retrieval," Edited by Osmar R. Zaiane, Simeon J. Simoff, Chabane Djeraba, *Data Mining from Multimedia and Complex Data*, pp. 50-67, Springer Verlag, Lecture Notes in Artificial Intelligence Volume 2797, 2003, ISBN: 3-540-20305-2.
4. Juried or refereed journal articles and exhibitions:
- 1) Samira Pouyanfar, Yudong Tao, Haiman Tian, Shu-Ching Chen, Mei-Ling Shyu, "Multimodal Deep Learning based on Multiple Correspondence Analysis for Disaster Management," *World Wide Web*, 2018, in press.
 - 2) Xue Yang, Mei-Ling Shyu, Han-Qi Yu, Shi-Ming Sun, Nian-Sheng Yin, Wei Chen, "Integrating Image and Textual Information in Human-Robot Interactions for Children with Autism Spectrum Disorder (ASD)," *IEEE Transactions on Multimedia*, in press.
 - 3) Samira Pouyanfar, Saad Sadiq, Yilin Yan, Haiman Tian, Yudong Tao, Maria Presa, Reyes, Mei-Ling Shyu, Shu-Ching Chen, S.S. Iyengar, "A Survey on Deep Learning: Algorithms, Techniques, and Applications," *ACM Computing Surveys*, in press.
 - 4) Haiman Tian, Yudong Tao, Samira Pouyanfar, Shu-Ching Chen, Mei-Ling Shyu, "Multimodal Deep Representation Learning for Video Classification," *World Wide Web*, 2018.
 - 5) Yimin Yang, Samira Pouyanfar, Haiman Tian, Min Chen, Shu-Ching Chen, and Mei-Ling Shyu, "IF-MCA: Importance Factor-based Multiple Correspondence Analysis for Multimedia Data Analytics," *IEEE Transactions on Multimedia*, Volume 20, Issue 4, pp. 1024-1032, April 2018.
 - 6) Samira Pouyanfar, Yimin Yang, Shu-Ching Chen, Mei-Ling Shyu, and S. S. Iyengar, "Multimedia Big Data Analytics: A Survey," *ACM Computing Surveys*, Vol. 51, Issue 1, Article No. 10, January 2018.
 - 7) Yilin Yan and Mei-Ling Shyu, "Correlation-Assisted Imbalance Multimedia Concept Mining and Retrieval," *International Journal of Semantic Computing*, Special Issue of the IEEE International Symposium on Multimedia, Vol. 11, No. 2, pp. 209-227, June 2017.

- 8) Yilin Yan, Min Chen, Muhammad Saad Sadiq, and Mei-Ling Shyu, "Efficient Imbalanced Multimedia Concept Retrieval by Deep Learning on Spark Clusters," *International Journal of Multimedia Data Engineering and Management*, Vol. 8, No. 1, pp. 1-20, January-March 2017.
- 9) Mei-Li You, Chi-Min Shu, Wei-Ting Chen, and Mei-Ling Shyu, "Analysis of Cardinal Grey Relational Grade and Grey Entropy on Achievement of Air Pollution Reduction by Evaluating Air Quality Trend in Japan," *Journal of Cleaner Production*, Vol. 142, Part 4, pp. 3883-3889, January 2017.
- 10) Chao Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Weighted Subspace Modeling for Semantic Concept Retrieval using Gaussian Mixture Models," *Information Systems Frontiers*, Special Issue of the 16th IEEE International Conference on Information Reuse and Integration (IRI 2015), Vol. 18, Issue 5, pp. 877-889, October 2016.
- 11) Yilin Yan, Mei-Ling Shyu, and Qiusha Zhu, "Supporting Semantic Concept Retrieval with Negative Correlations in a Multimedia Big Data Mining System," *International Journal of Semantic Computing*, Special Issue of the 2016 IEEE International Conference on Semantic Computing (ICSC 2016), 2016 (in press).
- 12) Chengde Zhang, Dianting Liu, Xiao Wu, Guiru Zhao, Mei-Ling Shyu, and Qiang Peng, "Near-Duplicate Segments Based News Web Video Event Mining," *Signal Processing: An International Journal*, Volume 120, pp. 26-35, March 2016.
- 13) Chengde Zhang, Xiao Wu, Mei-Ling Shyu, and Qiang Peng, "Integration of Visual Temporal Information and Textual Distribution Information for News Web Video Event Mining," *IEEE Transactions on Human-Machine Systems*, Vol. 46, No. 1, pp. 124-135, February 2016.
- 14) Mei-Ling Shyu and Shu-Ching Chen, "Guest Editors' Introduction: Emerging Multimedia Research and Applications," *IEEE MultiMedia*, Fast Track Special Issue of the 2014 IEEE International Symposium on Multimedia (ISM2014), Vol. 22, No. 4, pp. 11-13, October-December 2015.
- 15) Yonghong Tian, Shu-Ching Chen, Mei-Ling Shyu, Tiejun Huang, Phillip Sheu, Alberto Del Bimbo, "Multimedia Big Data," *IEEE MultiMedia*, Vol. 22, No. 3, pp. 93-95, July-Sept. 2015.
- 16) Ahmed T. Soliman, Tao Meng, Shu-Ching Chen, S.S. Iyengar, Puneeth Iyengar, John Yordy, Mei-Ling Shyu, "Driver Missense Mutation Identification Using Feature Selection and Model Fusion," *Journal of Computational Biology*, Vol. 22, No. 12, pp. 1075-1085, December 2015.
- 17) Qiusha Zhu and Mei-Ling Shyu, "Sparse Linear Integration of Content and Context Modalities for Semantic Concept Retrieval," *IEEE Transactions on Emerging Topics in Computing*, Vol. 3, No. 2, pp. 152-160, June 2015.
- 18) Tao Li and Mei-Ling Shyu, "Guest Editors' Introduction," *International Journal of Semantic Computing*, Special Issue of the Ninth IEEE International Conference on Semantic Computing (ICSC2015), Vol. 9, No. 3, pp. 281-282, 2015.
- 19) Mei-Ling Shyu, James Joshi, and Qiong Liu, "Guest Editors' Introduction," *International Journal of Semantic Computing*, Special Issue of the 2014 IEEE International Symposium on Multimedia (ISM2014), Vol. 9, No. 2, pp. 139-142, 2015.
- 20) Young-Sik Jeong, Mei-Ling Shyu, Guandong Xu, and Roland R. Wagner, "Guest Editorial: Advanced Technologies and Services for Multimedia Big Data Processing," *Multimedia Tools and Applications*, April 2015.
- 21) Felipe Mejia, Mei-Ling Shyu, and Antonio Nanni, "Data Quality Enhancement and Knowledge Discovery from Relevant Signals in Acoustic Emission," *Mechanical Systems and Signal Processing Journal*, Vol. 62-63, pp. 381-394, October 2015.
- 22) Dianting Liu, Yilin Yan, Mei-Ling Shyu, Guiru Zhao, and Min Chen, "Spatio-temporal Analysis for Human Action Detection and Recognition in Uncontrolled Environments" *International Journal of Multimedia Data Engineering and Management*, Vol. 6, No. 1, pp. 1-18, January-March 2015. **(Received "IGI Global's Eighth Annual Excellence in Research Journal Award - outstanding Media and Communications article for 2015")**
- 23) Mei-Ling Shyu, Giovanni Pilato, Robert Mertens, and Nadine Steinmetz, "Guest Editors' Introduction," *International Journal of Semantic Computing*, Special Issue of the Eighth IEEE International Conference on Semantic Computing (ICSC2014), Vol. 8, No. 4, pp. 385-388, 2014.
- 24) Qiusha Zhu, Mei-Ling Shyu, and Haohong Wang, "VideoTopic: Modeling User Interests for Content-based Video Recommendation," *International Journal of Multimedia Data Engineering and Management*, Vol. 5, No. 4, pp. 1-21, October-December 2014.
- 25) Tao Meng and Mei-Ling Shyu, "Multi-layer Model Collaboration for Bioimage Temporal Stage Classification," *International Journal of Semantic Computing (IJSC)*, Special Issue of the IEEE International Symposium on Multimedia (ISM2013), Vol. 8, No. 2, pp. 123-144, 2014.
- 26) Heyong Wang, Ming Hong, and Mei-Ling Shyu, "Study on the Use of Equidistant Binning on Residential Hedonic Price Discretization," *Information Technology Journal*, Vol. 13, Issue 13, pp. 2121-2128, 2014.

- 27) Zifang Huang, Mei-Ling Shyu, James M. Tien, Michael M. Vigoda, and David J. Birnbach, "Knowledge-Assisted Sequential Pattern Analysis with Heuristic Parameter Tuning for Labor Contraction Prediction," *IEEE Journal of Biomedical and Health Informatics*, Vol. 18, No. 2, pp. 492-499, March 2014.
- 28) Tao Meng and Mei-Ling Shyu, "Concept-concept Association Information Integration and Multi-model Collaboration for Multimedia Semantic Concept Detection," *Information System Frontier*, Vol. 16, Issue 5, pp. 787-799, 2014.
- 29) Tao Meng, Ahmed T. Soliman, Mei-Ling Shyu, Yimin Yang, Shu-Ching Chen, S. S. Iyengar, John Yordy, and Puneeth Iyengar, "Wavelet Analysis in Current Cancer Genome Research: A Survey," *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, Vol. 10, Issue 6, pp. 1442-1459, November/December 2013.
- 30) Mei-Ling Shyu, Giovanni Pilato, Brian Harrington, and Shlomo Dubnov, "Guest Editors' Introduction," *International Journal of Semantic Computing*, Special Issue of the Seventh IEEE International Conference on Semantic Computing (ICSC2013), Vol. 7, No. 4, pp. 349-351, 2013.
- 31) Chao Chen, Qiusha Zhu, Lin Lin, and Mei-Ling Shyu, "Web Media Semantic Concept Retrieval via Tag Removal and Model Fusion," *ACM Transactions on Intelligent Systems and Technology*, Vol. 4, Issue 4, Article No. 61, September 2013.
- 32) Chengde Zhang, Xiao Wu, Mei-Ling Shyu, and Qiang Peng, "A Novel Web Video Event Mining Framework with the Integration of Correlation and Co-occurrence Information," *Journal of Computer Science and Technology*, Vol. 28, Issue 5, pp. 788-796, September 2013.
- 33) Dianting Liu and Mei-Ling Shyu, "Semantic Motion Concept Retrieval in Non-Static Background Utilizing Spatial and Temporal Visual Information," *International Journal of Semantic Computing (IJSC)*, Vol. 7, No. 1, pp. 43-67, 2013.
- 34) Zifang Huang, Mei-Ling Shyu, James M. Tien, Michael M. Vigoda, and David J. Birnbach, "Prediction of Uterine Contractions Using Knowledge-Assisted Sequential Pattern Analysis," *IEEE Transactions on Biomedical Engineering*, Vol. 60, No. 5, pp. 1290-1297, May 2013.
- 35) Chao Chen, Lin Lin, and Mei-Ling Shyu, "Re-Ranking Algorithm for Multimedia Retrieval via Utilization of Inclusive and Exclusive Relationships between Semantic Concepts," *International Journal of Semantic Computing*, Vol. 6, Issue 2, pp. 135-154, June 2012.
- 36) Qiusha Zhu, Lin Lin, and Mei-Ling Shyu, "Correlation Maximization-based Discretization for Supervised Classification," *International Journal of Business Intelligence and Data Mining*, Inderscience Publishers, pp. 40-59, Vol. 7, Nos. 1/2, 2012.
- 37) Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Association Rule Mining with a Correlation-based Interestingness Measure for Video Semantic Concept Detection," *International Journal of Information and Decision Sciences*, Vol. 4, Nos. 2/3, pp. 199-216, 2012.
- 38) Lin Lin, Chao Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Weighted Subspace Filtering and Ranking Algorithms for Video Concept Retrieval," *IEEE Multimedia*, Vol. 18, No. 3, pp. 32-43, July-September 2011.
- 39) Hongli Luo and Mei-Ling Shyu, "Quality of Service Provision in Mobile Multimedia - A Survey," *Human-centric Computing and Information Sciences (HCIS) Journal* 2011, 1:5.
- 40) Qiusha Zhu, Lin Lin, Mei-Ling Shyu, and Dianting Liu, "Utilizing Context Information to Enhance Content-Based Image Classification," *International Journal of Multimedia Data Engineering and Management*, Vol. 2, No. 3, pp. 34-51, July-September 2011.
- 41) Tao Meng, Mei-Ling Shyu, and Lin Lin, "Multimodal Information Integration and Fusion for Histology Image Classification," *International Journal of Multimedia Data Engineering and Management*, Vol. 2, No. 2, pp. 54-70, April-June 2011.
- 42) Dianting Liu, Mei-Ling Shyu, Chao Chen, and Shu-Ching Chen, "Within and Between Shot Information Utilization in Video Key Frame Extraction," *Journal of Information and Knowledge Management*, Vol. 10, No. 3, pp. 247-259, 2011.
- 43) Mei-Ling Shyu, Chao Chen, and Shu-Ching Chen, "Multi-Class Classification via Subspace Modeling," *International Journal of Semantic Computing*, Vol. 5, No. 1, pp. 55-78, 2011.
- 44) Mei-Ling Shyu, "Guest Editor's Introduction," *International Journal of Semantic Computing*, Special Issue of the Fourth IEEE International Conference on Semantic Computing (ICSC2010), Vol. 4, No. 4, pp. 419-421, 2010.
- 45) Lin Lin and Mei-Ling Shyu, "Correlation-based Ranking for Large-scale Video Concept Retrieval," *International Journal of Multimedia Data Engineering and Management (IJMDEM)*, Vol. 1, No. 4, pp. 60-74, October-December 2010. **(Received "The Best Published Journal Article in IJMDEM for 2010" Award)**
- 46) Gerald Friedland and Mei-Ling Shyu, "Guest Editors' Introduction," *International Journal of Semantic Computing (IJSC)*, Special Issue of the IEEE International Symposium on Multimedia (ISM2009), Vol. 4, No. 2, pp. 153-154, 2010.

- 47) Mei-Ling Shyu, Yu Cao, Ming Li, Jun Kong, and Jie Bao, "Guest Editorial," *Journal of Multimedia*, Special Issue on Data Semantics and Multimedia Information Management, Vol. 5, No. 4, pp. 299-301, August 2010.
- 48) Guy Ravitz, Mei-Ling Shyu and Mark D. Powell, "Integrating Multimedia Semantic Content Analysis of YouTube Videos with Hurricane Wind Analysis for Public Situation Awareness and Outreach," *International Journal of Software Engineering and Knowledge Engineering*, Special Issue on Information and Knowledge Reuse, Featured Topic: From Information to Knowledge, Volume 20, Issue 2, pp. 155-172, March 2010.
- 49) Lin Lin and Mei-Ling Shyu, "Weighted Association Rule Mining for Video Semantic Detection," *International Journal of Multimedia Data Engineering and Management (IJMDEM)*, Vol. 1, No. 1, pp. 37-54, January-March 2010.
- 50) Mei-Ling Shyu, Yu Cao, Jun Kong, Ming Li, Mathias Lux and Jie Bao, "Introduction to the Special Issue on 'Data Semantics for Multimedia Systems'," *Multimedia Tools and Applications*, Volume 46, Numbers 2-3, pp. 147-154, January 2010.
- 51) Lin Lin and Mei-Ling Shyu, "Effective and Efficient Video High-Level Semantic Retrieval using Associations and Correlations," *International Journal of Semantic Computing (IJSC)*, Vol. 3, No. 4, pp. 421-444, 2009.
- 52) Sheng-Hung Wu, Mei-Ling Shyu, Yet-Pole I, Jen-Hao Chi, Chi-Min Shu, "Evaluation of Runaway Reaction for Dicumyl Peroxide in a Batch Reactor by DSC and VSP2," *Journal of Loss Prevention in the Process Industries (JLPI)*, Vol. 22, Issue 6, pp. 721-727, November 2009.
- 53) Alan Hanjalic, Ying Li, Mei-Ling Shyu, and Lei Zhang, "Editorial: On Emerging Techniques for Multimedia Content Sharing, Search and Understanding," *Journal of Visual Communication and Image Representation (JVCI)*, Vol. 20, No. 2, pp. 69-70, February 2009.
- 54) Hongli Luo, Mei-Ling Shyu, and Shu-Ching Chen, "Differentiated Service Protection via Anomalous Traffic Detection," *International Journal of Electronics and Computer Systems (IJECS)*, Vol. 10, No. 2, pp. 79-92, Winter 2008.
- 55) Mei-Ling Shyu and Shu-Ching Chen, "Guest Editorial: Introduction to the Special Issue on Multimedia Information Processing and Retrieval," *International Journal of Semantic Computing (IJSC)*, Vol. 2, No. 2, pp. 161-163, 2008.
- 56) Hongli Luo, Mei-Ling Shyu, and Shu-Ching Chen, "Video Streaming over the Internet with Optimal Bandwidth Resource Allocation," *Multimedia Tools and Applications*, Volume 40, Number 1, pp. 111-134, October 2008.
- 57) Mei-Ling Shyu, Zongxing Xie, Min Chen, and Shu-Ching Chen, "Video Semantic Event/Concept Detection Using a Subspace-based Multimedia Data Mining Framework," *IEEE Transactions on Multimedia*, Special Issue on Multimedia Data Mining, Volume 10, Number 2, pp. 252-259, February 2008.
- 58) K.K.R.G.K. Hewawasam, K. Premaratne, and Mei-Ling Shyu, "Rule Mining and Classification in a Situation Assessment Application: A Belief-Theoretic Approach for Handling Data Imperfections," *IEEE Transactions on Systems, Man and Cybernetics, Part B*, Vol. 37, No. 6, pp. 1446-1459, December 2007.
- 59) Mei-Ling Shyu, Thiago Quirino, Zongxing Xie, Shu-Ching Chen, and LiWu Chang, "Network Intrusion Detection through Adaptive Sub-Eigenspace Modeling in Multiagent Systems," *ACM Transactions on Autonomous and Adaptive Systems*, Volume 2, Issue 3, Article No. 9, pp. 9:1-9:37, September 2007.
- 60) Shu-Ching Chen, Na Zhao, and Mei-Ling Shyu, "Modeling Semantic Concepts and User Preferences in Content-Based Video Retrieval," *International Journal of Semantic Computing*, Vol. 1, Issue 3, pp. 377-402, September 2007.
- 61) Mei-Ling Shyu, Shu-Ching Chen, Qibin Sun, and Heather Yu, "Overview and Future Trends of Multimedia Research for Content Access and Distribution," *International Journal of Semantic Computing*, Vol. 1, Issue 1, pp. 29-66, March 2007.
- 62) Mei-Ling Shyu Shu-Ching Chen, Min Chen, Chengcui Zhang, and Kanoksri Sarinnapakorn, "Capturing High-Level Image Concepts via Affinity Relationships in Image Database Retrieval," *Journal of Multimedia Tools and Applications*, Volume 32, Number 1, pp. 73-92, January 2007.
- 63) Choochart Haruechaiyasak, Mei-Ling Shyu, and Shu-Ching Chen, "A Web-Page Recommender System via a Data Mining Framework and the Semantic Web Concept," *International Journal of Computer Applications in Technology*, Special Issue on Data Mining Applications, Vol. 27, No. 4, pp. 298-311, 2006.
- 64) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and Min Chen, "A Multimodal Data Mining Framework for Soccer Goal Detection Based on Decision Tree Logic," *International Journal of Computer Applications in Technology*, Special Issue on Data Mining Applications, Vol. 27, No. 4, pp. 312-323, 2006.
- 65) Mei-Ling Shyu, Choochart Haruechaiyasak, and Shu-Ching Chen, "Mining User Access Patterns with Traversal Constraint for Predicting Web Page Requests," *Knowledge and Information Systems (KAIS) Journal*, Volume 10, Number 4, pp. 515-528, November 2006.

- 66) Mei-Ling Shyu and Shu-Ching Chen, "Guest Editorial: Introduction to the Special Issue on Multimedia Databases," *Information Systems*, Volume 31, Issue 7, pp. 636-637, November 2006.
- 67) Shu-Ching Chen, Stuart H. Rubin, Mei-Ling Shyu, and Chengcui Zhang, "A Dynamic User Concept Pattern Learning Framework for Content-Based Image Retrieval," *IEEE Transactions on Systems, Man, and Cybernetics: Part C*, Volume 36, Issue 6, pp. 772-783, November 2006.
- 68) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, Chengcui Zhang, and Chi-Min Shu, "Probabilistic Semantic Network-based Image Retrieval Using MMM and Relevance Feedback," *Journal of Multimedia Tools and Applications*, Volume 30, Number 2, pp. 131-147, August 2006.
- 69) C.C. Liao, S.H. Wu, T.S. Su, M.L. Shyu, C.M. Shu, "Thermokinetics evaluation and simulations for the polymerization of styrene in the presence of various inhibitor concentrations," *Journal of Thermal Analysis and Calorimetry*, Volume 85, Issue 1, pp. 65-71, Jul 2006.
- 70) Hongli Luo, Mei-Ling Shyu, and Shu-Ching Chen, "An Optimal Resource Utilization Scheme with End-to-End Congestion Control for Continuous Media Stream Transmission," *Computer Networks*, Volume 50, Issue 7, pp. 921-937, May 2006.
- 71) Min Chen, Shu-Ching Chen, Mei-Ling Shyu, and Kasun Wickramaratna, "Semantic Event Detection via Temporal Analysis and Multimodal Data Mining," *IEEE Signal Processing Magazine*, Special Issue on Semantic Retrieval of Multimedia, Volume 23, Number 2, pp. 38-46, March 2006.
- 72) Mei-Ling Shyu and Shu-Ching Chen, "Guest Editorial: Introduction to the Special Issue," *Multimedia Tools and Applications*, Volume 26, Number 2, pp. 151-152, June 2005.
- 73) Shu-Ching Chen, Mei-Ling Shyu, Srinivas Peeta, and Chengcui Zhang, "Spatio-Temporal Vehicle Tracking: The Use of Unsupervised Learning-Based Segmentation and Object Tracking," *IEEE Robotics and Automation Magazine*, special issue on Robotic Technologies applied to Intelligent Transportation Systems, Vol. 12, No. 1, pp. 50-58, March 2005, ISSN 1070-9932.
- 74) Shu-Ching Chen, Mei-Ling Shyu, Irina Gray, and Hongli Luo, "An Adaptive Rate-Control Streaming Mechanism with Optimal Buffer Utilization," *Journal of Systems and Software*, Special Issue on Adaptive Multimedia Computing, pp. 271-282, Vol. 75, Issue 3, March 2005.
- 75) Mei-Ling Shyu, Shu-Ching Chen, and Stuart H. Rubin, "Stochastic Clustering for Organizing Distributed Information Source," *IEEE Transactions on Systems, Man and Cybernetics, Part B*, vol. 34, no. 5, pp. 2035-2047, October 2004.
- 76) E.C. Kulasekere, K. Premaratne, D.A. Dewasurendra, Mei-Ling Shyu, and P.H. Bauer, "Conditioning and Updating Evidence," *International Journal of Approximate Reasoning*, Elsevier Sciences, Vol. 36/1, pp. 75-108, 2004.
- 77) Shu-Ching Chen, Sheng-Tun Li, and Mei-Ling Shyu, "Model-Based System Development for Asynchronous Distance Learning," *International Journal of Distance Education Technologies*, vol. 1, no. 4, pp. 39-54, October-December 2003.
- 78) Mei-Ling Shyu, Choochart Haruechaiyasak, and Shu-Ching Chen, "Category Cluster Discovery from Distributed WWW Directories," *Journal of Information Sciences*, special issue on Knowledge Discovery from Distributed Information Sources, Volume 155, Issues 3-4, pp. 181-197, October 2003.
- 79) Shu-Ching Chen, Mei-Ling Shyu, Srinivas Peeta, and Chengcui Zhang, "Learning-Based Spatio-Temporal Vehicle Tracking and Indexing for Transaction Multimedia Database Systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 4, no. 3, pp. 154-167, September 2003.
- 80) Stuart H. Rubin, Mei-Ling Shyu, and Shu-Ching Chen, "Database Cluster Hierarchies and Semantic Relationship Discovery in Distributed Database Systems," *Naval Biennial Review*, pp. 73-77, 2003.
- 81) Keqi Zhang, Shu-Ching Chen, Dean Whitman, Mei-Ling Shyu, Jianhua Yan, and Chengcui Zhang, "A Progressive Morphological Filter for Removing Non-Ground Measurements from Airborne LIDAR Data," *IEEE Trans. on Geoscience and Remote Sensing*, vol. 41, issue 4, pp. 872-882, April 2003.
- 82) Choochart Haruechaiyasak, Mei-Ling Shyu, and Shu-Ching Chen, "Identifying Topics for Web Documents through Fuzzy Association Learning," *International Journal of Computational Intelligence and Applications (IJCIA)*, Special Issue on Internet-Based Intelligent Systems, vol. 2, no. 3, pp. 277-285, September 2002.
- 83) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and Jeff Strickrott, "A Multimedia Data Mining Framework: Mining Information from Traffic Video Sequences," *Journal of Intelligent Information System*, Special Issue on Multimedia Data Mining, vol. 19, no. 1, pp. 61-77, July 2002.
- 84) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and R. L. Kashyap, "Identifying Overlapped Objects for Video Indexing and Modeling in Multimedia Database Systems," *International Journal on Artificial Intelligence Tools*, vol. 10, no. 4, pp. 715-734, December 2001.

- 85) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "Generalized Affinity-Based Association Rule Mining for Multimedia Database Queries," *Knowledge and Information Systems (KAIS): An International Journal*, vol. 3, no. 3, pp. 319-337, August 2001.
 - 86) Sheng-Tun Li, Shu-Ching Chen, and Mei-Ling Shyu, "A Snapshot Browsing Model for a Distributed Surveillance System," *Journal of Applied Systems Studies*, Special Issue on Distributed Multimedia Systems with Applications, vol. 2, no. 3, 2001.
 - 87) Shu-Ching Chen, Mei-Ling Shyu, and R. L. Kashyap, "Augmented Transition Network as a Semantic Model for Video Data," *International Journal of Networking and Information Systems*, Special Issue on Video Data, vol. 3, no. 1, pp. 9-25, 2000.
5. Referred Conference/Symposium/Workshop Proceedings:
- 1) Saad Sadiq, Yilin Yan, Asia Taylor, Mei-Ling Shyu, Shu-Ching Chen, and Daniel Feaster, "AAFA: Associative Affinity Factor Analysis for Bot Detection and Stance Classification in Twitter," The *IEEE International Conference on Information Reuse and Integration*, pp. 356-365, San Diego, CA, USA, August 4-6, 2017.
 - 2) Kent Gauen, Ryan Dailey, John Laiman, Yuxiang Zi, Nirmal Asokan, Yung-Hsiang Lu, George K. Thiruvathukal, Mei-Ling Shyu, and Shu-Ching Chen, "Comparison of Visual Datasets for Machine Learning," The *IEEE International Conference on Information Reuse and Integration*, San Diego, CA, USA, pp. 346-355, August 4-6, 2017.
 - 3) Stuart H. Rubin, William K. Grefe, Thouraya Bouabana-Tebibel, Shu-Ching Chen, Mei-Ling Shyu, and Kenneth S. Simonsen, "Cyber-Secure UAV Communications using Heuristically Inferred Stochastic Grammars and Hard Real-Time Adaptive Waveform Synthesis and Evolution," The *IEEE International Conference on Information Reuse and Integration*, San Diego, CA, USA, pp. 9-15, August 4-6, 2017.
 - 4) Samira Pouyanfar, Shu-Ching Chen, and Mei-Ling Shyu, "An Efficient Deep Residual-Inception Network For Multimedia Classification," *IEEE International Conference on Multimedia and Expo*, pp. 373-378, Hong Kong, China, July 10-14, 2017.
 - 5) Saad Sadiq, Yudong Tao, Yilin Yan, and Mei-Ling Shyu, "Mining Anomalies in Medicare Big Data using Patient Rule Induction Method," *The Third IEEE International Conference on Multimedia Big Data*, pp. 185-192, Laguna Hills, CA, USA, April 19-21, 2017.
 - 6) Yilin Yan and Mei-Ling Shyu, "Enhancing Rare Class Mining in Multimedia Big Data by Concept Correlation," *IEEE International Symposium on Multimedia*, pp. 281-286, San Jose, CA, USA, December 11-13, 2016.
 - 7) Yilin Yan, Qiusha Zhu, Mei-Ling Shyu, and Shu-Ching Chen, "A Classifier Ensemble Framework for Multimedia Big Data Classification," *the 17th IEEE International Conference on Information Reuse and Integration*, pp. 615-622, Pittsburgh, PA, USA, July 28-30, 2016. **(Received "The Best Paper" Award)**
 - 8) Saad Sadiq, Yilin Yan, Mei-Ling Shyu, Shu-Ching Chen, and Hemant Ishwaran, "Enhancing Multimedia Imbalanced Concept Detection Using VIMP in Random Forests," *the 17th IEEE International Conference on Information Reuse and Integration*, pp. 601-608, Pittsburgh, PA, USA, July 28-30, 2016.
 - 9) Yilin Yan, Samira Pouyanfar, Haiman Tian, Sheng Guan, Hsin-Yu Ha, Shu-Ching Chen, Mei-Ling Shyu, and Shahid Hamid, "Domain Knowledge Assisted Data Processing for Florida Public Hurricane Loss Model," *the 17th IEEE International Conference on Information Reuse and Integration*, pp. 441-447, Pittsburgh, PA, USA, July 28-30, 2016.
 - 10) Haiman Tian, Hsin-Yu Ha, Samira Pouyanfar, Yilin Yan, Sheng Guan, Shu-Ching Chen, Mei-Ling Shyu, and Shahid Hamid, "A Scalable and Automatic Validation Process for Florida Public Hurricane Loss Model," *the 17th IEEE International Conference on Information Reuse and Integration*, pp. 324-331, Pittsburgh, PA, USA, July 28-30, 2016.
 - 11) Yilin Yan, Mei-Ling Shyu, and Qiusha Zhu, "Negative Correlation Discovery for Big Multimedia Data Semantic Concept Mining and Retrieval," *the 10th IEEE International Conference on Semantic Computing*, pp. 55-62, Laguna Hills, CA, USA, February 3-5, 2016.
 - 12) Yilin Yan, Min Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Deep Learning for Imbalanced Multimedia Data Classification," *the 2015 IEEE International Symposium on Multimedia*, pp. 483-488, Miami, FL, USA, December 14-16, 2015.
 - 13) Sheng Guan, Min Chen, Hsin-Yu Ha, Shu-Ching Chen, Mei-Ling Shyu, and Chengde Zhang, "Deep Learning with MCA-based Instance Selection and Bootstrapping for Imbalanced Data Classification," *the First IEEE Conference on Collaboration and Internet Computing*, pp.288-295, Hangzhou, China, October 27-30, 2015.
 - 14) Hsin-Yu Ha, Shu-Ching Chen, and Mei-Ling Shyu, "Negative-based Sampling for Multimedia Retrieval," *the 16th IEEE International Conference on Information Reuse and Integration*, pp. 64-71, San Francisco, CA, USA, August 13-15, 2015.

- 15) Chao Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Gaussian Mixture Model-based Subspace Modeling for Semantic Concept Retrieval," the *16th IEEE International Conference on Information Reuse and Integration*, pp. 258-265, San Francisco, CA, USA, August 13-15, 2015.
- 16) Hsin-Yu Ha, Shu-Ching Chen, and Mei-Ling Shyu, "Utilizing Indirect Associations in Multimedia Semantic Retrieval," the *IEEE International Conference on Multimedia Big Data*, pp. 72-79, Beijing, China, April 20-22, 2015.
- 17) Yimin Yang, Shu-Ching Chen, and Mei-Ling Shyu, "Temporal Multiple Correspondence Analysis for Big Data Mining in Soccer Videos," the *IEEE International Conference on Multimedia Big Data*, pp. 64-71, Beijing, China, April 20-22, 2015.
- 18) Wei-Ting Chen, Mei-Li Yu, Mei-Ling Shyu, and Chi-Min Shu, "Combination of Cardinal Grey Relational Grade and Data Mining on Process Safety by Evaluating Air Quality Trend in Japan," the *15th IUMRS-International Conference in Asia (IUMRS-ICA2014)*, Fukuoka, Japan, August 24-30, 2014.
- 19) Yilin Yan, Yang Liu, Mei-Ling Shyu, and Min Chen, "Utilizing Concept Correlations for Effective Imbalanced Data Classification," the *15th IEEE International Conference on Information Reuse and Integration*, pp. 561-568, San Francisco, CA, USA, August 13-15, 2014. **(Received "The Best Paper" Award)**
- 20) Tao Meng, Yang Liu, Mei-Ling Shyu, Yilin Yan, and Chi-Min Shu, "Enhancing Multimedia Semantic Concept Mining and Retrieval by Incorporating Negative Correlations," the *Eighth IEEE International Conference on Semantic Computing*, pp. 28-35, Newport Beach, CA, USA, June 16-18, 2014.
- 21) Tao Meng and Mei-Ling Shyu, "Biological Image Temporal Stage Classification via Multi-Layer Model Collaboration," *IEEE International Symposium on Multimedia*, pp. 30-37, Anaheim, California, USA, December 9-11, 2013. **(Received "The Best Paper" Award)**
- 22) Qiusha Zhu, Zhao Li, Haohong Wang, Yimin Yang, and Mei-Ling Shyu, "Multimodal Sparse Linear Integration for Content-based Item Recommendation," *IEEE International Symposium on Multimedia*, pp. 187-194, Anaheim, California, USA, December 9-11, 2013.
- 23) Qiusha Zhu, Mei-Ling Shyu, and Haohong Wang, "VideoTopic: Content-based Video Recommendation Using a Topic Model," *IEEE International Symposium on Multimedia*, pp. 219-222, Anaheim, California, USA, December 9-11, 2013.
- 24) Tao Meng, Mei-Ling Shyu, and Hua Zhang, "Automatic Discovery of Bioluminescent Proteins from Large Protein Databases," the *Seventh IEEE International Conference on Semantic Computing*, pp. 355-362, Irvine, California, USA, September 16-18, 2013.
- 25) Dianting Liu and Mei-Ling Shyu, "Semantic Retrieval for Videos in Non-Static Background Using Motion Saliency and Global Features," the *Seventh IEEE International Conference on Semantic Computing*, pp. 294-301, Irvine, California, USA, September 16-18, 2013.
- 26) Dianting Liu, Mei-Ling Shyu, and Guiru Zhao, "Spatial-temporal Motion Information Integration for Action Detection and Recognition in Non-static Background," *IEEE International Conference on Information Reuse and Integration*, pp. 626-633, San Francisco, California, USA, August 14-16, 2013.
- 27) Chengde Zhang, Xiao Wu, Mei-Ling Shyu, and Qiang Peng, "Adaptive Association Rule Mining for Web Video Event Classification," *IEEE International Conference on Information Reuse and Integration*, pp. 618-625, San Francisco, California, USA, August 14-16, 2013.
- 28) Dianting Liu and Mei-Ling Shyu, "Effective Moving Object Detection and Retrieval via Integrating Spatial-Temporal Multimedia Information," *IEEE Symposium on Multimedia*, pp. 364-371, Irvine, California, USA, December 10-12, 2012.
- 29) Zifang Huang, Mei-Ling Shyu, James M. Tien, David J. Birnbach, and Michael M. Vigoda, "Labor Contraction Prediction via Demographic and Obstetrical Information Analysis," *The 2012 IEEE International Conference on Bioinformatics and Biomedicine*, pp. 300-305, Philadelphia, PA, USA, October 4-7, 2012.
- 30) Tao Meng and Mei-Ling Shyu, "Model-driven Collaboration and Information Integration for Enhancing Video Semantic Concept Detection," *The 13th IEEE International Conference on Information Integration and Reuse (IRI 2012)*, pp. 144-151, Las Vegas, Nevada, USA, August 8-10, 2012. **(Received "The Best Paper" Award)**
- 31) Zifang Huang, Mei-Ling Shyu, and James M. Tien, "Multi-Model Integration for Long-Term Time Series Prediction," *The 13th IEEE International Conference on Information Integration and Reuse*, pp. 116-123, Las Vegas, Nevada, USA, August 8-10, 2012.
- 32) Tao Meng and Mei-Ling Shyu, "Leveraging Concept Association Network for Multimedia Rare Concept Mining and Retrieval," *The 2012 IEEE International Conference on Multimedia & Expo*, pp. 860-865, Melbourne, Australia, July 9-13, 2012.

- 33) Chao Chen, Lin Lin and Mei-Ling Shyu, "Utilization of Co-occurrence Relationships between Semantic Concepts in Re-ranking for Information Retrieval," *IEEE International Symposium on Multimedia*, pp. 53-60, Dana Point, California, USA, December 5-7, 2011.
- 34) Dianting Liu, Mei-Ling Shyu, Qiusha Zhu, and Shu-Ching Chen, "Moving Object Detection under Object Occlusion Situations in Video Sequences," *IEEE International Symposium on Multimedia*, pp. 271-278, Dana Point, California, USA, December 5-7, 2011.
- 35) Chao Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Data Management Support via Spectrum Perturbation-based Subspace Classification in Collaborative Environments," *The 7th International Conference on Collaborative Computing: Networking, Applications and Worksharing*, pp. 67-76, Orlando, Florida, USA, October 15-18, 2011 (Invited Paper).
- 36) Tao Meng and Mei-Ling Shyu, "Automatic Annotation of Drosophila Developmental Stages Using Association Classification and Information Integration," *The 12th IEEE International Conference on Information Reuse and Integration*, pp. 142-147, Las Vegas, Nevada, USA, August 3-5, 2011.
- 37) Chao Chen and Mei-Ling Shyu, "Clustering-based Binary-class Classification for Imbalanced Data Sets," *The 12th IEEE International Conference on Information Reuse and Integration*, pp. 384-389, Las Vegas, Nevada, USA, August 3-5, 2011.
- 38) Qiusha Zhu, Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Effective Supervised Discretization for Classification based on Correlation Maximization," *The 12th IEEE International Conference on Information Reuse and Integration*, pp. 390-395, Las Vegas, Nevada, USA, August 3-5, 2011.
- 39) Tao Meng, Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Histology Image Classification using Supervised Classification and Multimodal Fusion," *The IEEE International Symposium on Multimedia*, pp. 145-152, Taichung, Taiwan, R.O.C., December 13-15, 2010.
- 40) Qiusha Zhu, Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Feature Selection Using Correlation and Reliability Based Scoring Metric for Video Semantic Detection," *The fourth IEEE International Conference on Semantic Computing*, pp. 462-469, Carnegie Mellon University, Pittsburgh, PA, USA, September 22-24, 2010.
- 41) Zifang Huang and Mei-Ling Shyu, "k-NN Based LS-SVM Framework for Long-Term Time Series Prediction," *The 11th IEEE International Conference on Information Reuse and Integration*, pp. 69-74, Tuscany Suites & Casino, Las Vegas, Nevada, USA, August 4-6, 2010.
- 42) Dianting Liu, Mei-Ling Shyu, Chao Chen, and Shu-Ching Chen, "Integration of Global and Local Information in Videos for Key Frame Extraction," *The 11th IEEE International Conference on Information Reuse and Integration*, pp. 171-176, Tuscany Suites & Casino, Las Vegas, Nevada, USA, August 4-6, 2010.
- 43) Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Enhancing Concept Detection by Pruning Data with MCA-based Transaction Weights," *IEEE International Symposium on Multimedia*, pp. 304-311, San Diego, California, USA, December 14-16, 2009.
- 44) Hongli Luo and Mei-Ling Shyu, "An Optimized Scheduling Scheme to Provide Quality of Service in 802.11e Wireless LAN," *The Fifth IEEE International Workshop on Multimedia Information Processing and Retrieval*, in conjunction with IEEE International Symposium on Multimedia, pp. 651-656, San Diego, California, USA, December 14-16, 2009.
- 45) Luis I Rodriguez, Michael M Vigoda, Mei-Ling Shyu, Tao Meng, and Mitsunori Ogihara, "Dexamethasone and Ondansetron for PONV: Are We in a Rush To Administer?," *2009 American Society of Anesthesiologists Annual Meeting*, A1073, New Orleans, LA, USA, October 17-21, 2009 (Abstracts).
- 46) Luis I Rodriguez, Michael M Vigoda, Mei-Ling Shyu, Tao Meng, and Mitsunori Ogihara, "How Closely Do Attending Anesthesiologists Supervise PONV Prophylaxis Administration?," *2009 American Society of Anesthesiologists Annual Meeting*, A1076, New Orleans, LA, USA, October 17-21, 2009 (Abstracts).
- 47) Luis I Rodriguez, Michael M Vigoda, Mei-Ling Shyu, Tao Meng, and Mitsunori Ogihara, "Prophylactic Treatment for PONV. Are We Following the Guidelines?," *2009 American Society of Anesthesiologists Annual Meeting*, A1082, New Orleans, LA, USA, October 17-21, 2009 (Abstracts).
- 48) Lin Lin and Mei-Ling Shyu, "Mining High-Level Features from Video using Associations and Correlations," *The Third IEEE International Conference on Semantic Computing*, pp. 137-144, Berkeley, CA, USA, September 14-16, 2009. **(Received "The Best Student Paper" Award)**
- 49) Lin Lin, Mei-Ling Shyu, and Shu-Ching Chen, "Correlation-based Interestingness Measure for Video Semantic Concept Detection," *The 2009 IEEE International Conference on Information Reuse and Integration*, pp. 120-125, Tuscany Hotel, Las Vegas, Nevada, USA, August 10-12, 2009.
- 50) Guy Ravitz, Mei-Ling Shyu, and Mark D. Powell, "Integration of Hurricane Wind Analysis and Multimedia Semantic Content Analysis for Public Outreach," *The 2009 IEEE International Conference on Information Reuse and Integration*, pp. 342-347, Tuscany Hotel, Las Vegas, Nevada, USA, August 10-12, 2009.

- 51) Chao Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Supervised Multi-class Classification with Adaptive and Automatic Parameter Tuning," *The 2009 IEEE International Conference on Information Reuse and Integration*, pp. 433-434, Tuscany Hotel, Las Vegas, Nevada, USA, August 10-12, 2009.
- 52) Lin Lin, Mei-Ling Shyu, Guy Ravitz, and Shu-Ching Chen, "Video Semantic Concept Detection via Associative Classification," *The 10th IEEE International Conference on Multimedia and Expo*, pp. 418-421, New York, NY, USA, June 28-July 3, 2009.
- 53) Varsha Sainani and Mei-Ling Shyu, "A Hybrid Layered Multiagent Architecture with Low Cost and Low Response Time Communication Protocol for Network Intrusion Detection Systems," *The IEEE 23rd International Conference on Advanced Information Networking and Applications*, pp. 154-161, Bradford, UK, May 26-29, 2009.
- 54) Lin Lin, Guy Ravitz, Mei-Ling Shyu, and Shu-Ching Chen, "Correlation-based Video Semantic Concept Detection using Multiple Correspondence Analysis," *IEEE International Symposium on Multimedia*, pp. 316-321, Berkeley, California, USA, December 15-17, 2008.
- 55) Hongli Luo and Mei-Ling Shyu, "Provision of Quality of Service with Router Support," *The Fourth IEEE International Workshop on Multimedia Information Processing and Retrieval*, in conjunction with IEEE International Symposium on Multimedia, pp. 654-659, Berkeley, California, USA, December 15-17, 2008.
- 56) Shu-Ching Chen, Mei-Ling Shyu, and Min Chen, "An Effective Multi-Concept Classifier for Video Streams," *Proceedings of the Second IEEE International Conference on Semantic Computing*, pp. 80-87, Santa Clara, CA, USA, August 4-7, 2008.
- 57) Peerapon Vateekul and Mei-Ling Shyu, "A Conflict-Based Confidence Measure for Associative Classification," *Proceedings of the 2008 IEEE International Conference on Information Reuse and Integration*, pp. 256-261, Las Vegas, Nevada, USA, July 13-15, 2008.
- 58) Lin Lin, Guy Ravitz, Mei-Ling Shyu, and Shu-Ching Chen, "Effective Feature Space Reduction with Imbalanced Data for Semantic Concept Detection," *Proceedings of the IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing*, pp. 262-269, Taichung, Taiwan, June 11-13, 2008.
- 59) Na Zhao, Min Chen, Shu-Ching Chen, Mei-Ling Shyu, "MRBAC: Hierarchical Role Management and Security Access Control for Distributed Multimedia Systems," *Proceedings of the 11th IEEE Symposium on Object and Component-Oriented Real-Time Distributed Computing*, pp. 76-82, May 5-7, 2008, Orlando, Florida, USA.
- 60) Zongxing Xie, Thiago Quirino, Mei-Ling Shyu, and Shu-Ching Chen, "ASIC: Supervised Multi-class Classification using Adaptive Selection of Information Components," *First IEEE International Conference on Semantic Computing*, pp. 527-534, September 17-19, 2007, Irvine, California, USA.
- 61) Hongli Luo and Mei-Ling Shyu, "Defense against Bandwidth Attacks with Traffic Resource Management," *IEEE International Conference on Information Reuse and Integration*, pp. 190-195, Las Vegas, USA, August 13-15, 2007.
- 62) Lin Lin, Guy Ravitz, Mei-Ling Shyu, and Shu-Ching Chen, "Video Semantic Concept Discovery using Multimodal-based Association Classification," *IEEE International Conference on Multimedia & Expo*, pp. 859-862, Beijing, China, July 2-5, 2007.
- 63) Hongli Luo and Mei-Ling Shyu, "Differentiated Service Protection of Multimedia Transmission via Detection of Traffic Anomalies," *IEEE International Conference on Multimedia & Expo*, pp. 1539-1542, Beijing, China, July 2-5, 2007.
- 64) Zongxing Xie, Mei-Ling Shyu, and Shu-Ching Chen, "Video Event Detection with Combined Distance-Based and Rule-Based Data Mining Techniques," *IEEE International Conference on Multimedia & Expo*, pp. 2026-2029, Beijing, China, July 2-5, 2007.
- 65) Min Chen, Shu-Ching Chen, Mei-Ling Shyu, "Hierarchical Temporal Association Mining for Video Event Detection in Video Databases," *The Second IEEE International Workshop on Multimedia Databases and Data Management*, in conjunction with IEEE International Conference on Data Engineering, pp. 137-145, Istanbul, Turkey, April 15, 2007.
- 66) Shu-Ching Chen, Min Chen, Chengcui Zhang, and Mei-Ling Shyu, "Exciting Event Detection using Multi-level Multimodal Descriptors and Data Classification," *IEEE International Symposium on Multimedia*, pp. 193-200, December 11-13, 2006, San Diego, CA, USA.
- 67) Thiago Quirino, Zongxing Xie, Mei-Ling Shyu, Shu-Ching Chen, and LiWu Chang, "Collateral Representative Subspace Projection Modeling for Supervised Classification," *the 18th IEEE International Conference on Tools with Artificial Intelligence*, pp. 98-105, November 13-15, 2006, Washington D.C., USA.
- 68) Zongxing Xie, Thiago Quirino, Mei-Ling Shyu, Shu-Ching Chen and LiWu Chang, "UNPCC: A Novel Unsupervised Classification Scheme for Network Intrusion Detection," *the 18th IEEE International Conference on Tools with Artificial Intelligence*, pp. 743-750, November 13-15, 2006, Washington D.C., USA.

- 69) Na Zhao, Shu-Ching Chen, Mei-Ling Shyu, and Stuart H. Rubin, "An Integrated and Interactive Video Retrieval Framework with Hierarchical Learning Models and Semantic Clustering Strategy," *The 2006 IEEE International Conference on Information Reuse and Integration*, pp. 438-443, September 16-18, 2006, Hawaii, USA.
- 70) Zongxing Xie, Thiago Quirino, Mei-Ling Shyu, Shu-Ching Chen, and LiWu Chang, "A Distributed Agent-Based Approach To Intrusion Detection Using the Lightweight PCC Anomaly Detection Classifier," *IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing*, pp. 446-453, June 5-7, 2006, Taichung, Taiwan, R.O.C.
- 71) Na Zhao, Shu-Ching Chen, and Mei-Ling Shyu, "Video Database Modeling and Temporal Pattern Retrieval using Hierarchical Markov Model Mediator," *The First IEEE International Workshop on Multimedia Databases and Data Management*, in conjunction with IEEE International Conference on Data Engineering, April 8, 2006, Atlanta, Georgia, USA.
- 72) Guy Ravitz and Mei-Ling Shyu, "Unit Detection from American Football TV Broadcast using Multimodal Content Analysis," *IEEE International Symposium on Multimedia*, pp. 320-327, December 12-14, 2005, Irvine, California, USA.
- 73) Kasun Wickramaratna, Min Chen, Shu-Ching Chen, and Mei-Ling Shyu, "Neural Network Based Framework for Goal Event Detection in Soccer Videos," *IEEE International Symposium on Multimedia*, pp. 21-28, December 12-14, 2005, Irvine, California, USA.
- 74) Hongli Luo and Mei-Ling Shyu, "The Protection of QoS for Multimedia Transmission against Denial of Service Attacks," *The First IEEE International Workshop on Security and Pervasive Multimedia Environments*, in conjunction with the IEEE International Symposium on Multimedia, pp. 695-700, December 12-14, 2005, Irvine, California, USA.
- 75) Mei-Ling Shyu, Indika Priyantha Kuruppu-Appuhamilage, Shu-Ching Chen, and LiWu Chang, "Handling Missing Values via Decomposition of the Conditioned Set," *2005 IEEE International Conference on Information Reuse and Integration*, pp. 199-204, August 15-17, 2005, Las Vegas, Nevada, USA.
- 76) H. Nicholas Carrasco and Mei-Ling Shyu, "Automated Quality Control of Tropical Cyclone Winds Through Data Mining," *2005 IEEE International Conference on Information Reuse and Integration*, pp. 229-234, August 15-17, 2005, Las Vegas, Nevada, USA.
- 77) Yimin Zhu, Mei-Ling Shyu, Shu-Ching Chen, "Data Integration for Capital Projects via Community-Specific Conceptual Representations," *2005 IEEE International Conference on Information Reuse and Integration*, pp. 144-148, August 15-17, 2005, Las Vegas, Nevada, USA.
- 78) KKR GK. Hewawasam, K. Premaratne, SP Subasingha, and Mei-Ling Shyu, "Rule Mining and Classification in Imperfect Databases," *The 2005 7th International Conference on Information Fusion*, Volume 1, pp. 661-668, July 25-28, 2005, Philadelphia, PA, USA.
- 79) Hongli Luo, Mei-Ling Shyu, and Shu-Ching Chen, "A Multi-Buffer Scheduling Scheme for Video Streaming," *IEEE International Conference on Multimedia & Expo*, July 6-8, 2005, Amsterdam, The Netherlands.
- 80) Chengcui Zhang, Xin Chen, Min Chen, Shu-Ching Chen, and Mei-Ling Shyu, "A Multiple Instance Learning Approach for Content Based Image Retrieval Using One-Class Support Vector Machine," *IEEE International Conference on Multimedia & Expo*, July 6-8, 2005, Amsterdam, The Netherlands.
- 81) Shu-Ching Chen, Mei-Ling Shyu, and Na Zhao, "An Enhanced Query Model for Soccer Video Retrieval Using Temporal Relationships," *the 21st International Conference on Data Engineering*, pp. 1133-1134, April 5-8, 2005, Tokyo, Japan.
- 82) Mei-Ling Shyu, Choochart Haruechaiyasak, Shu-Ching Chen, and Na Zhao, "Collaborative Filtering via Association Rule Mining from User Access Sequences," *International Workshop on Challenges in Web Information Retrieval and Integration*, in conjunction with The 21st International Conference on Data Engineering, pp. 128-133, April 8-9, 2005, Tokyo, Japan.
- 83) Mei-Ling Shyu, Kanoksri Sarinapakorn, Indika Kuruppu-Appuhamilage, Shu-Ching Chen, LiWu Chang, and Thomas Goldring, "Handling Nominal Features in Anomaly Intrusion Detection Problems," *15th International Workshop on Research Issues on Data Engineering*, in conjunction with The 21st International Conference on Data Engineering, pp. 55-62, April 3-4, 2005, National Center of Sciences, Tokyo, Japan.
- 84) KKR GK Hewawasam, K. Premaratne, Mei-Ling Shyu, and SP Subasingha, "Rule Mining and Classification in the Presence of Feature Level and Class Label Ambiguities," *Defense and Security Symposium 2005*, Proc. SPIE, Vol. 5803, pp. 98-107, Intelligent Computing: Theory and Applications III, March/April 2005, Orlando, FL, USA.
- 85) Mei-Ling Shyu, Guy Ravitz, and Shu-Ching Chen, "Unit Detection in American Football TV Broadcasts Using Average Energy of Audio Track," *the IEEE Sixth International Symposium on Multimedia Software Engineering*, pp. 193-200, December 13-15, 2004, Miami, FL, USA.

- 86) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, and Chengcui Zhang, "A Unified Framework for Image Database Clustering and Content-based Retrieval," *the Second ACM International Workshop on Multimedia Databases*, pp. 19-27, November 13, 2004, Arlington, VA, USA.
- 87) Choochart Haruechaiyasak, Mei-Ling Shyu, and Shu-Ching Chen, "A Data Mining Framework for Building A Web-Page Recommender System," *the 2004 IEEE International Conference on Information Reuse and Integration*, pp. 357-362, November 8-10, 2004, Las Vegas, Nevada, USA.
- 88) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, and Stuart H. Rubin, "Affinity-Based Similarity Measure for Web Document Clustering," *the 2004 IEEE International Conference on Information Reuse and Integration*, pp. 247-252, November 8-10, 2004, Las Vegas, Nevada, USA.
- 89) J. Zhang, S.P. Subasingha, K. Premaratne, Mei-Ling Shyu, M. Kubat, and KKRKGK Hewawasam, "A Novel Belief Theoretic Association Rule Mining Based Classifier for Handling Class Label Ambiguities," *the Third Workshop in Foundations of Data Mining*, in conjunction with the Fourth IEEE International Conference on Data Mining, November 1, 2004, Birghton, UK.
- 90) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, and Chengcui Zhang, "Affinity Relation Discovery in Image Database Clustering and Content-based Retrieval," *ACM Multimedia 2004 Conference*, pp. 372-375 (short paper), October 10-16, New York, USA.
- 91) Shu-Ching Chen, Mei-Ling Shyu, Na Zhao, "SMARXO: Towards Secured Multimedia Applications by Adopting RBAC, XML and Object-Relational Database," *ACM Multimedia 2004 Conference*, pp. 432-435 (short paper), October 10-16, New York, USA.
- 92) Shu-Ching Chen, Mei-Ling Shyu, Chengjun Zhan, and Srinivas Peeta, "A Novel Rate-Based Hop By Hop Congestion Control Algorithm," *IEEE International Conference on Multimedia and Expo*, June 27 - June 30, 2004, Taipei, Taiwan, R.O.C.
- 93) Shu-Ching Chen, Mei-Ling Shyu, Min Chen, and Chengcui Zhang, "A Decision Tree-based Multimodal Data Mining Framework for Soccer Goal Detection," *IEEE International Conference on Multimedia and Expo*, June 27 - June 30, 2004, Taipei, Taiwan, R.O.C.
- 94) Chengcui Zhang, Shu-Ching Chen, and Mei-Ling Shyu, "Multiple Object Retrieval for Image Databases Using Multiple Instance Learning and Relevance Feedback," *IEEE International Conference on Multimedia and Expo*, June 27 - June 30, 2004, Taipei, Taiwan, R.O.C.
- 95) Mei-Ling Shyu, Shu-Ching Chen, and Chamara Ranasingha, "Router Active Queue Management for Both Multimedia and Best-Effort Traffic Flows," *IEEE International Conference on Multimedia and Expo*, June 27 - June 30, 2004, Taipei, Taiwan, R.O.C.
- 96) Hongli Luo, Mei-Ling Shyu, and Shu-Ching Chen, "An End-to-End Video Transmission Framework with Efficient Bandwidth Utilization," *IEEE International Conference on Multimedia and Expo*, June 27 - June 30, 2004, Taipei, Taiwan, R.O.C.
- 97) Shu-Ching Chen and Mei-Ling Shyu, "Workshop Report: The First ACM International Workshop on Multimedia Databases (MMDB 2003) at ACM CIKM 2003," *ACM SIGIR Forum* (Invited), Vol. 38, No. 1, pp. 51-56, June 2004.
- 98) Chengcui Zhang, Shu-Ching Chen, and Mei-Ling Shyu, "PixSO: A System for Video Shot Detection," *the Fourth IEEE Pacific-Rim Conference On Multimedia*, pp. 1-5, December 15-18, 2003, Singapore.
- 99) Chengcui Zhang, Shu-Ching Chen, Mei-Ling Shyu, and Srinivas Peeta, "Adaptive Background Learning for Vehicle Detection and Spatio-Temporal Tracking," *the Fourth IEEE Pacific-Rim Conference On Multimedia*, pp. 1-5, December 15-18, 2003, Singapore.
- 100) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, Chengcui Zhang, and Chi-Min Shu, "MMM: A Stochastic Mechanism for Image Database Queries," *the IEEE Fifth International Symposium on Multimedia Software Engineering*, pp. 188-195, December 10-12, 2003, Taichung, Taiwan, ROC.
- 101) Mei-Ling Shyu, Shu-Ching Chen, Kanoksri Sarinnapakorn, and LiWu Chang, "A Novel Anomaly Detection Scheme Based on Principal Component Classifier," *the IEEE Foundations and New Directions of Data Mining Workshop*, in conjunction with the Third IEEE International Conference on Data Mining, pp. 172-179, November 19, 2003, Melbourne, Florida, USA.
- 102) Mei-Ling Shyu, Shu-Ching Chen, Min Chen, Chengcui Zhang, and Kanoksri Sarinnapakorn, "Image Database Retrieval Utilizing Affinity Relationships," *the First ACM International Workshop on Multimedia Databases*, pp. 78-85, November 7, 2003, New Orleans, Louisiana, USA.
- 103) Shu-Ching Chen, Mei-Ling Shyu, Na Zhao, and Chengcui Zhang, "An Affinity-Based Image Retrieval System for Multimedia Authoring and Presentation," *the 11th Annual ACM International Conference on Multimedia*, pp. 446-447, November 2-8, 2003 Berkeley, CA, USA.

- 104) Shu-Ching Chen, Mei-Ling Shyu, Na Zhao, and Chengcui Zhang, "Component-Based Design and Integration of a Distributed Multimedia Management System," *the 2003 IEEE International Conference on Information Reuse and Integration*, pp. 485-492, October 27-29, 2003, Las Vegas, Nevada, USA.
- 105) Sheng-Tun Li, Huang-Chih Hsieh, Shu-Ching Chen, and Mei-Ling Shyu, "Facilitating KMS Reusability by XML Binding Model," *the 2003 IEEE International Conference on Information Reuse and Integration*, pp. 478-484, October 27-29, 2003, Las Vegas, Nevada, USA.
- 106) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, Walter Z. Tang, and Keqi Zhang, "Damage Pattern Mining in Hurricane Image Databases," *the 2003 IEEE International Conference on Information Reuse and Integration*, pp. 227-234, October 27-29, 2003, Las Vegas, Nevada, USA.
- 107) Stuart H. Rubin, Shu-Ching Chen, and Mei-Ling Shyu, "Field-Effect Natural Language Semantic Mapping," *the 2003 IEEE International Conference on Systems, Man & Cybernetics*, pp. 2483-2487, October 5-8, 2003, Washington, D.C., USA.
- 108) Shu-Ching Chen, Mei-Ling Shyu, and Na Zhao, "MediaManager: A Distributed Multimedia Management System for Content-Based Retrieval, Authoring and Presentation," *the 9th International Conference on Distributed Multimedia Systems*, pp. 17-22, Miami, FL, USA, September 24-26, 2003.
- 109) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, Lin Luo, and Min Chen, "Detection of Soccer Goal Shots Using Joint Multimedia Features and Classification Rules," *the Fourth International Workshop on Multimedia Data Mining*, in conjunction with the ACM SIGKDD International Conference on Knowledge Discovery & Data Mining, pp. 36-44, August 24 - 27, 2003, Washington, DC, USA.
- 110) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "Ensuring Fairness In Multimedia Multicast Streaming With Optimal Rate Allocation And Client Buffer Utilization," *the IEEE International Conference on Multimedia & Expo*, vol III, pp. 353-356, July 6-9, 2003, Baltimore, MD, USA.
- 111) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "Per-Class Queue Management And Adaptive Packet Drop Mechanism For Multimedia Networking," *the IEEE International Conference on Multimedia & Expo*, vol. III, pp. 365-368, July 6-9, 2003, Baltimore, MD, USA.
- 112) Xin Hunag, Shu-Ching Chen, and Mei-Ling Shyu, "Incorporating Real-Valued Multiple Instance Learning Into Relevance Feedback For Image Retrieval," *the IEEE International Conference on Multimedia & Expo*, vol. I, pp. 321-324, July 6-9, 2003, Baltimore, MD, USA.
- 113) Shu-Ching Chen, Mei-Ling Shyu, Irina Gray, and Hongli Luo, "An Adaptive Multimedia Transmission Protocol for Distributed Multimedia Applications," *the 5th International Workshop on Multimedia Network Systems and Applications*, in conjunction with The 23rd International Conference on Distributed Computing Systems, pp. 537-542, May 19, 2003, Providence, Rhode Island, USA.
- 114) Xin Huang, Shu-Ching Chen, and Mei-Ling Shyu, "An Open Multiple Instance Learning Framework and Its Application in Drug Activity Prediction Problems," *the 3rd IEEE Symposium on Bioinformatics and Bioengineering*, pp. 53-59, March 10-12, 2003.
- 115) Mei-Ling Shyu, Shu-Ching Chen, Lin Luo, and Chi-Min Shu, "A Stochastic Model for Content-Based Image Retrieval," *the Third IEEE Pacific-Rim Conference on Multimedia 2002*, Lecture Notes in Computer Science: Springer-Verlag, pp. 229-236, December 16-18, Hsinchu, Taiwan.
- 116) Xiuqi Li, Shu-Ching Chen, Mei-Ling Shyu, and Sheng-Tun Li, "A Novel Hierarchical Approach to Image Retrieval Using Color and Spatial Information," *the Third IEEE Pacific-Rim Conference on Multimedia 2002*, Lecture Notes in Computer Science: Springer-Verlag, pp. 175-182, December 16-18, Hsinchu, Taiwan.
- 117) Shu-Ching Chen, Sheng-Tun Li, Mei-Ling Shyu, Chengjun Zhan, and Chengcui Zhang, "A Multimedia Semantic Model for RTSP-Based Multimedia Presentation Systems," *the IEEE Fourth International Symposium on Multimedia Software Engineering*, pp. 124-131, December 11-13, 2002, Newport Beach, California, USA.
- 118) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "End-to-End Congestion Control via Optimal Bandwidth Allocation for Multimedia Streams," *the 15th International Conference on Computer Applications in Industry and Engineering*, pp. 57-60, November 7-9, 2002, San Diego, California USA.
- 119) Xiuqi Li, Shu-Ching Chen, Mei-Ling Shyu, and Borko Furht, "Image Retrieval by Color, Texture, and Spatial Information," *the 8th International Conference on Distributed Multimedia Systems*, pp. 152-159, September 26-28, 2002, San Francisco Bay, California, USA.
- 120) Chin-Chuan Chen, Chi-Min Shu, Ron-Shin Chang, Mei-Ling Shyu, and Shu-Ching Chen, "Thermal Hazard Analysis of Styrene Monomer at Low Temperature Conditions during Storage and Transportation," *the 30th North American Thermal Analysis Society Conference*, pp. 433-439, September 23-25, 2002, Pittsburgh, Pennsylvania, USA.

- 121) Deng-Jr Peng, Chi-Min Shu, Jin-Zhi Wei, Mei-Ling Shyu, and Shu-Ching Chen, "Thermal Hazard Assessment on Hydroperoxides Examples on Cumene Hydroperoxide," *the 30th North American Thermal Analysis Society Conference*, pp. 440-447, September 23-25, 2002, Pittsburgh, Pennsylvania, USA.
- 122) Tsu-Kaung Miao, Chi-Min Shu, Deng-Jr Peng, Mei-Ling Shyu, and Shu-Ching Chen, "Thermal Hazard Analysis for Cumene Hydroperoxide by DSC and TAM," *the 30th North American Thermal Analysis Society Conference*, pp. 448-454, September 23-25, 2002, Pittsburgh, Pennsylvania, USA.
- 123) Deng-Jr Peng, Chi-Min Shu, Hwei-Jiun Chen, Mei-Ling Shyu, and Shu-Ching Chen, "Fire Prevention Study of Wet Bench Cleaning Stages in Semiconductor Manufacturing Processes Incompatibilities of Hydrogen Peroxide," *the 30th North American Thermal Analysis Society Conference*, pp. 455-462, September 23-25, 2002, Pittsburgh, Pennsylvania, USA.
- 124) Shu-Ching Chen, Mei-Ling Shyu, Wenhui Liao, and Chengcui Zhang, "Scene Change Detection by Audio and Video Clues," *the IEEE International Conference on Multimedia and Expo*, pp. 365-368, August 26-29, 2002, Lausanne, Switzerland.
- 125) Shu-Ching Chen, Mei-Ling Shyu, and Hongli Luo, "Optimal Bandwidth Allocation Scheme with Delay Awareness in Multimedia Transmission," *the IEEE International Conference on Multimedia and Expo*, pp. 537-540, August 26-29, 2002, Lausanne, Switzerland.
- 126) Xiuqi Li, Shu-Ching Chen, Mei-Ling Shyu, and Borko Furht, "An Effective Content-Based Visual Image Retrieval System," *the 26th IEEE Computer Society International Computer Software and Applications Conference*, pp. 914-919, August 26-29, 2002, Oxford, England.
- 127) Choochart Haruechaiyasak, Mei-Ling Shyu, and Shu-Ching Chen, "Web Document Classification Based on Fuzzy Association," *the 26th IEEE Computer Society International Computer Software and Applications Conference*, pp. 487-492, August 26-29, 2002, Oxford, England.
- 128) Xin Huang, Shu-Ching Chen, Mei-Ling Shyu, and Chengcui Zhang, "User Concept Pattern Discovery Using Relevance Feedback and Multiple Instance Learning for Content-Based Image Retrieval," *the Third International Workshop on Multimedia Data Mining*, in conjunction with the 8th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining, pp. 100-108, July 23, 2002, Edmonton, Alberta, Canada.
- 129) Xiuqi Li, Shu-Ching Chen, Mei-Ling Shyu, and Borko Furht, "An Efficient Multi-Filter Retrieval Framework for Large Image Databases," *the 2002 International Symposium on Information Systems and Engineering*, pp. 81-86, July 14 - 18, 2002, San Diego, California, USA.
- 130) Mei-Ling Shyu, Choochart Haruechaiyasak, Shu-Ching Chen, and Kamal Premaratne, "Mining Association Rules with Uncertain Item Relationships," *the 6th World Multi-Conference on Systemics, Cybernetics and Informatics*, pp. 435-440, July 14-18, 2002, Orlando, Florida, USA.
- 131) E.C. Kulasekera, K. Premaratne, Mei-Ling Shyu, and P.H. Bauer, "Association Rule Mining with Subjective Knowledge," *the 6th World Multi-Conference on Systemics, Cybernetics and Informatics*, pp. 417-422, July 14-18, 2002, Orlando, Florida, USA.
- 132) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "Self-Adjusted Network Transmission for Multimedia Data," *the Third IEEE Conference on Information Technology: Coding and Computing*, pp. 128-133, April 8-10, 2002, Las Vegas, Nevada, USA.
- 133) Shu-Ching Chen, Sheng-Tun Li, Hung-Chi Chen, Mei-Ling Shyu, and Chengcui Zhang, "Streaming SMIL Presentations via a Multimedia Semantic Model," *the Second International Workshop on Intelligent Multimedia Computing and Networking*, in conjunction with 6th Joint Conference on Information Sciences, pp. 919-922, March 8-12, 2002, Durham, North Carolina, USA.
- 134) Chengcui Zhang, Lin Luo, Shu-Ching Chen, and Mei-Ling Shyu, "Supporting Information Reuse for Video Data Indexing by Using Color Information," *the 3rd International Conference on Information Reuse and Integration*, pp. 92-96, November 27 - 29, 2001, Las Vegas, Nevada, USA.
- 135) Shu-Ching Chen, Mei-Ling Shyu, Xia Jin, Qiong Chen, Chengcui Zhang, and Jeff Strickrott, "A Flexible Image Retrieval and Multimedia Presentation Management System for Multimedia Databases," *the ACM Multimedia 2001 conference*, pp. 601-602, September 30 - October 5, 2001, Ottawa, CANADA.
- 136) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and Jeff Strickrott, "Multimedia Data Mining for Traffic Video Sequences," *the Second International Workshop on Multimedia Data Mining*, in conjunction with the Seventh ACM SIGKDD International Conference on Knowledge Discovery & Data Mining, pp. 78-85, August 26, 2001, San Francisco, CA, USA.
- 137) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "An Adaptive Optimal Multimedia Network Transmission Control Scheme," *the Second IEEE Pacific-Rim Conference on Multimedia 2001*, pp. 1042-1047, October 24-26, 2001, Beijing, China.

- 138) Mei-Ling Shyu, Shu-Ching Chen, and Choochart Haruechaiyasak, "Mining User Access Behavior on the WWW," *the IEEE International Conference on Systems, Man, and Cybernetics*, pp. 1717-1722, October 7-10, 2001, Tucson, Arizona, USA.
- 139) Shu-Ching Chen, Mei-Ling Shyu, and Chengcui Zhang, "An Unsupervised Segmentation Framework For Texture Image Queries," *the 25th IEEE Computer Society International Computer Software and Applications Conference*, pp. 569-573, October 8-12, 2001, Chicago, Illinois, USA.
- 140) Mei-Ling Shyu, Shu-Ching Chen, Choochart Haruechaiyasak, Chi-Min Shu, and Sheng-Tun Li, "Disjoint Web Document Clustering and Management in Electronic Commerce," *the Seventh International Conference on Distributed Multimedia Systems*, pp. 494-497, September 26-28, 2001, Tamkang University, Taipei, Taiwan.
- 141) Ron-Hsin Chang, Chi-Min Shu, Po-Yin Yeh, Mei-Ling Shyu, and Shu-Ching Chen, "Thermal Hazard Analysis of Methyl Ethyl Ketone Peroxide," *the 17th Asia Pacific Occupational Safety & Health Organization Conference*, pp. 244-258, September 24-29, 2001, Taipei, Taiwan.
- 142) Jer-Pei Fang, Chi-Min Shu, Yu-Ching Chen, Shu-Ching Chen, and Mei-Ling Shyu, "Leakage Evaluated and Controlled from Industrial Process Pipeline by Optimum Gasket Assembly Stress," *the 17th Asia Pacific Occupational Safety & Health Organization Conference*, pp. 294-312, September 24-29, 2001, Taipei, Taiwan.
- 143) Deng-Jr Peng, Chi-Min Shu, Jing-Heng Wang, Mei-Ling Shyu, and Shu-Ching Chen, "New Approaches for Calculating Safety Parameters and Estimating Hazard Severity for Cumene Hydroperoxide," *the 17th Asia Pacific Occupational Safety & Health Organization Conference*, pp. 267-278, September 24-29, 2001, Taipei, Taiwan.
- 144) Chin-Chuan Chen, Chi-Min Shu, Chan-An Yeh, Shu-Ching Chen, and Mei-Ling Shyu, "Autocatalytic Decomposition of Cumene Hydroperoxide at Low Temperature Conditions," *the 17th Asia Pacific Occupational Safety & Health Organization Conference*, pp. 259-266, September 24-29, 2001, Taipei, Taiwan.
- 145) Po-Jiun Wen, Chi-Min Shu, Zhi-Cheng Chang, Shu-Ching Chen, and Mei-Ling Shyu, "Effects of Initial Pressure on the Flammability Limit of OX-Air Mixture with 20-L-Appartus," *the 17th Asia Pacific Occupational Safety & Health Organization Conference*, pp. 443-465, September 24-29, 2001, Taipei, Taiwan.
- 146) Mei-Ling Shyu, Shu-Ching Chen, and Hongli Luo, "Optimal Resource Utilization in Multimedia Transmission," *the IEEE International Conference on Multimedia and Expo*, pp. 880-883, August 22-25, 2001, Waseda University, Tokyo, Japan.
- 147) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and R.L. Kashyap, "Video Scene Change Detection Method Using Unsupervised Segmentation and Object Tracking," *the IEEE International Conference on Multimedia and Expo*, pp. 57-60, August 22-25, 2001, Waseda University, Tokyo, Japan.
- 148) Shu-Ching Chen, Mei-Ling Shyu, and Chengcui Zhang, "An Intelligent Framework for Spatio-Temporal Vehicle Tracking," *the 4th International IEEE Conference on Intelligent Transportation Systems*, pp. 213-218, August 25-29, 2001, Oakland, California, USA.
- 149) Sheng-Tun Li, Shu-Ching Chen, and Mei-Ling Shyu, "A Live TV-Quality Distant learning Multimedia Presentation System for Education," *the 34th Hawaii International Conference on System Sciences*, CD-ROM, IEEE Press, 9 pages, January 3-6, 2001, Maui, Hawaii.
- 150) Mei-Ling Shyu, Shu-Ching Chen, and Sheng-Tun Li, "Incorporation of Data Mining and Domain Knowledge for Discovering Quasi-equivalence Database Relationships," *the Workshop on Artificial Intelligence, International Computer Symposium*, pp. 65-71, December 6-8, 2000, Chiayi, Taiwan.
- 151) Shu-Ching Chen, Mei-Ling Shyu, Chengcui Zhang, and R. L. Kashyap, "Object Tracking and Augmented Transition Network for Video Indexing and Modeling," *the 12th IEEE International Conference on Tools with Artificial Intelligence*, pp. 428-435, November 13-15, 2000, Vancouver, British Columbia, Canada.
- 152) Mei-Ling Shyu and Shu-Ching Chen, "Mining Database Semantic Relationships," *the ISCA 2nd International Conference On Information Reuse And Integration*, pp. 62-65, November 1-3, 2000, Honolulu, Hawaii, USA.
- 153) Sheng-Tun Li, Shu-Ching Chen, and Mei-Ling Shyu, "A Presentation Semantic Model for Asynchronous Distance Learning Paradigm," *the ACM Multimedia 2000 Conference*, pp. 404-406, October 30 - November 3, 2000, Los Angeles, California, USA.
- 154) Mei-Ling Shyu, Shu-Ching Chen, and Chi-Min Shu, "Affinity-Based Probabilistic Reasoning and Document Clustering on the WWW," *the 24th IEEE Computer Society International Computer Software and Applications Conference*, pp. 149-154, October 25-27, 2000, Taipei, Taiwan.
- 155) Mei-Ling Shyu and Shu-Ching Chen, "A Bayesian Network-Based Expert Query System for a Distributed Database System," *the IEEE International Conference on Systems, Man, and Cybernetics*, pp. 2074-2079, October 8-11, 2000, Nashville, Tennessee, USA.
- 156) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "Organizing a Network of Databases Using Probabilistic Reasoning," *the IEEE International Conference on Systems, Man, and Cybernetics*, pp. 1990-1995, October 8-11, 2000, Nashville, Tennessee, USA.

- 157) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "A Probabilistic-Based Mechanism For Video Database Management Systems," *the IEEE International Conference on Multimedia and Expo*, pp. 467-470, July 30-August 2, 2000, New York City, USA.
- 158) Shu-Ching Chen, Sheng-Tun Li, and Mei-Ling Shyu, "Modeling Snapshot Browsing for Web-based Integrated Surveillance Services," *the Second International Workshop on Software Engineering and Multimedia Applications*, pp. 31-35, August 1-2, Baden-Baden, Germany.
- 159) Shu-Ching Chen, Mei-Ling Shyu, and Naphtali Rishe, "Modeling Interactive Multimedia Presentation Systems Using Augmented Transition Networks," *the First International Workshop on Intelligent Multimedia Computing and Networking*, pp. 643-646, February 27-March 3, 2000, Atlantic City, NJ, USA.
- 160) Mei-Ling Shyu, Shu-Ching Chen, and Naphtali Rishe, "Markov Model Mediator Mechanism vs Object-Oriented Data Model As a Data Warehouse Schema," *the Fifth International Conference on Computer Science and Informatics*, pp. 496-499, February 27-March 3, 2000, Atlantic City, NJ, USA.
- 161) Shu-Ching Chen, Srinivas Sista, Mei-Ling Shyu, and R. L. Kashyap, "An Indexing and Searching Structure for Multimedia Database Systems," *the IS&T/SPIE conference on Storage and Retrieval for Media Databases 2000*, pp. 262-270, January 23-28, 2000, San Jose, CA, USA.
- 162) Shu-Ching Chen, Srinivas Sista, Mei-Ling Shyu, and R. L. Kashyap, "Augmented Transition Networks as Video Browsing Models for Multimedia Databases and Multimedia Information Systems," *the 11th IEEE International Conference on Tools with Artificial Intelligence*, pp. 175-182, November 9-11, 1999, Chicago, IL, USA.
- 163) Shu-Ching Chen, Mei-Ling Shyu, and R. L. Kashyap, "Multimedia Presentation Using Augmented Transition Networks and Multimedia Input Strings," *the ISCA 12th International Conference On Computer Applications In Industry And Engineering*, pp. 58-61, November 4-6, 1999, Atlanta, Georgia USA.
- 164) Shu-Ching Chen, Mei-Ling Shyu, and Chi-Min Shu, "Discovering Semantic Relationships Among Object Classes In Database Systems," *the ISCA 1st International Conference On Information Reuse And Integration*, pp. 100-103, November 4-6, 1999, Atlanta, Georgia USA.
- 165) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "Discovering Quasi-Equivalence Relationships From Database Systems," *the ACM Eighth International Conference on Information and Knowledge Management*, pp. 102-108, November 2-6, 1999, Kansas City, MO, USA.
- 166) Shu-Ching Chen, Mei-Ling Shyu, and Chi-Min Shu, "An Object-Oriented Approach For Managing a Network Of Databases," *the 3rd Annual IASTED International Conference on Software Engineering and Applications*, pp. 51-55, October 6-8, 1999, Scottsdale, Arizona, USA.
- 167) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "Information Retrieval Using Markov Model Mediators in Multimedia Database Systems," *the 1998 International Symposium on Multimedia Information Processing*, pp. 237-242, Dec. 14-16, 1998, Chung-Li, Taiwan.
- 168) Mei-Ling Shyu, Shu-Ching Chen, and R. L. Kashyap, "Database Clustering and Data Warehousing," *the 1998 ICS Workshop on Software Engineering and Database Systems*, pp. 30-37, Dec. 17-19, 1998, Tainan, Taiwan.
- 169) Shu-Ching Chen, Mei-Ling Shyu, Srinivas Peeta, and Chengcui Zhang, "Unsupervised Automated Learning-Based Spatio-Temporal Vehicle Tracking and Indexing for Transportation Multimedia Database Systems," *Transportation Research Board (TRB) 2002 Annual Meeting (Referred Presentation)*, January 13-17, 2002, Washington DC, USA.

PROFESSIONAL

6. Funded Research Performed:

- External:
 - 1) Florida Public Hurricane Loss Model. Florida International University/Florida Office of Insurance Regulation, 08/01/2017-06/30/2019, \$90,000, Subcontract.
 - 2) FPHL Model Operation and Maintenance, and Model Upgrades. Florida International University/Florida Office of Insurance Regulation, 12/09/2013-09/30/2017, \$115,000, Subcontract.
 - 3) Florida Public Hurricane Loss Model Project Enhancements to Estimate Losses from Storm Surge and Flooding. Florida International University/Florida Office of Insurance Regulation, 01/01/2014-12/31/2017, \$173,000, Subcontract.
 - 4) Data Mining Assisted Disaster Information Management for Effective Crisis Management and Disaster Recovery Planning and Management. Sayling Wen Cultural & Educational Foundation, Service Science Society of Taiwan, 01/01/2014-12/31/2014, \$3,400 (Total NT\$300,000, about \$10,000), Co-PI (Collaborator: Dr. Chi-Min Shu).
 - 5) System Support for the Development & Simulation of Tropical Cyclone Numerical Models in a Cluster System. NOAA, 08/01/2007-09/30/2015, \$154,535, PI.

- 6) Data Integration and Data Mining Support for Tropical Cyclone Integrated Observing System. NOAA, 08/01/2007-09/30/2015, \$154,535, PI.
 - 7) Public Hurricane Model. Florida International University/Florida Office of Insurance Regulation, 02/01/2010-06/30/2013, \$109,939, Subcontract.
 - 8) TCL Research America, gift funds, \$40,000.
 - 9) Data Analysis and Near-Real-time Quality Control in Support of the International Argo Project. NOAA, 03/01/2008-06/30/2012, \$102,500, PI.
 - 10) Research and Implementation of a Hydrographic Database in Support of the Operational and Research Community. NOAA, 08/15/2008-06/30/2012, \$81,013, PI.
 - 11) Huawei (FutureWei Technologies, Inc.), gift funds, \$15,840, 2008.
 - 12) Design and Development of the Caribbean-wide Reef Fish Visual Census Universal Database. NOAA, 02/04/2003-09/30/2010, \$154,114, PI.
 - 13) Research and Development of Oracle Content Management System and Web Tools for the NOAA Southeast Coral Reef Research Program. NOAA, 01/15/2004-06/30/2009, \$161,947, PI.
 - 14) Hurricane Loss Projection Model. Florida International University/Florida Office of Insurance Regulation, 01/09/2006-09/30/2009, \$154,038, Subcontract.
 - 15) ITR: Collaborative Research: Distributed Information Fusion Networks for Threat Detection and Assessment. NSF ITR (Medium) IIS-0325260, 08/15/2003-07/31/2007, \$399,647, Co-PI (PI: Kamal Premaratne).
 - 16) Research Experiences for Undergraduates. NSF, 05/03/04-07/31/04, \$6,000, Co-PI (PI: Kamal Premaratne).
 - 17) Design and Development of the Florida Keys Coral Reef Ecological Assessment Universal Database. University of North Carolina/NOAA, 06/01/2005-05/31/2006, \$20,000, Subcontract.
 - 18) Implementation of the NOAA Southeast Coral Reef Database System (SeCoRDS). NOAA, 02/10/2003-05/31/2004, \$46,979, PI.
 - 19) Hurricane Risk and Insured Loss Projection Model, Florida International University/Florida Department of Insurance, 08/15/2002-09/01/2005, Amount: \$ 81,531, Subcontract.
 - 20) Fishery Resource Habitat Use Modeling in Florida Bay: Development and Application to Everglades Restoration Implementation (Phase 1). National Park Service, 12/03/2003-06/03/2005, \$21,581, Collaborating Investigator (PI: Jerald Ault), Total amount: \$101,008.
 - 21) Distributed Intrusion Detection Systems Research Support. Florida International University/Naval Research Laboratory (NRL), 04/2004-12/28/2004, \$5,000, Subcontract.
 - 22) Resource Management and Quality of Service in Multimedia Wireless Networks, Telecommunications & Information Technology Institute/ Florida International University, 01/14/2002-12/31/2002, Amount: \$ 58,606, Co-PI (Collaborators: Dr. Shu-Ching Chen and Dr. Raimund Ege).
 - 23) Reduction of OSHA Recordable Injuries in a Large Utility Company. Florida Power and Light, 6/2001-12/2001, Amount: \$38,500, Senior Investigator (PI: Dr. S. Asfour).
 - Internal:
 - 1) Provost Research Award. University of Miami, 06/01/2012-05/31/2013, \$16,800, PI.
 - 2) Adaptive Network Transmission Control Mechanism for Optimal Resource Utilization, General Research Support Award, Research Council, University of Miami, 06/01/2002-05/31/2003, Amount: \$ 5,000, PI.
 - 3) Aerodynamic Design Optimization with Artificial Intelligence for Efficient Search of Global Optimum, College of Engineering (CoE) Research Council, University of Miami, 2/1/2002-12/31/2002, Amount: \$ 25,000, Co-PI (Collaborator: Dr. Gecheng Zha).
 - 4) Data Mining for Web Document Management. University of Miami, 05/16/2001-08/15/2001, Amount: \$9,300, PI.
7. Editorial responsibilities:
- Associate Editor and Editor Board:
 - IEEE Transactions on Services Computing (5/2017 - present)
 - IEEE Transactions on Human-Machine Systems (1/2013 – present).
 - IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews (9/2009 – 12/2012).
 - EAI Endorsed Transactions on Collaborative Computing (2/2014 – 5/2015).
 - International Journal of Multimedia Data Engineering and Management, IGI Global (9/2008 – present).
 - International Journal of Semantic Computing, World Scientific (1/2014 – present).
 - Journal of Big Data, a SpringerOpen Journal (2/2013 – present).
 - International Journal of Smart Home (4/2007 – present).
 - International Journal of Signal Processing, Image Processing and Pattern (IJSIP), SERSC Press.

- International Journal of u- and e- Service, Science and Technology (IJUNESST).
 - International Journal on Advances in Telecommunications, IARIA.
 - International Journal of Adaptive Multimedia Systems (IJAMS), Serials Publications (2008-2010).
 - Mobile and Ubiquitous Computing Journal.
 - Advances in Multimedia Journal, Hindawi Publishing Corporation (2009-11/2017).
 - Journal of Advances in Information Technology (JAIT), ACADEMY PUBLISHER.
 - The Journal of Information Processing Systems (JIPS), Korea Information Processing Society (KIPS) (2008-2012).
 - The Open Cybernetics & Systemics Journal (2007–2017).
 - Guest Editor:
 - Special Issue on “IEEE International Symposium on Multimedia (ISM2014),” *IEEE Multimedia Magazine*, 2015.
 - Special Issue on “The Ninth IEEE International Conference on Semantic Computing (ICSC2015),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2015
 - Special Issue on “IEEE International Symposium on Multimedia (ISM2014),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2015.
 - Special Issue on “Advanced Technologies and Services for Multimedia Big Data Processing,” *Multimedia Tools and Applications (MTAP, Springer)*, 2015.
 - Special Issue on “The Eighth IEEE International Conference on Semantic Computing (ICSC2014),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2014.
 - Special Issue on “The Seventh IEEE International Conference on Semantic Computing (ICSC2013),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2014.
 - Special Issue on Information Reuse and Integration of the *Journal of Information and Knowledge Management (World Scientific Publishing Company)*, 2011 (Selected papers from "The 11th IEEE International Conference on Information Reuse and Integration (IEEE IRI 2010)).
 - Special Issue on “The Fourth IEEE International Conference on Semantic Computing (ICSC2010),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2011.
 - Special Issue on “IEEE International Symposium on Multimedia (ISM2009),” *International Journal of Semantic Computing (IJSC, World Scientific Publishing Company)*, 2010.
 - Journal Special Issue on Data Semantics for Multimedia Systems, *Multimedia Tools and Applications (MTAP, Springer)*, 2009.
 - Journal Special Issue on Data Semantics and Multimedia Information Management, *Journal of Multimedia (JMM, Academy Publisher)*, 2009 (Selected papers from IEEE-MIPR2008 (Multimedia Information Processing and Retrieval) and DSMSA2008 (Data Semantics for Multimedia Systems and Applications) Workshops of International Symposium on Multimedia).
 - Journal Special Issue on "Emerging Techniques for Multimedia Content Sharing, Search and Understanding," *Journal of Visual Communication and Image Representation (JVCI)*, 2008.
 - Journal Special Issue on “Multimedia Information Processing and Retrieval,” *International Journal of Semantic Computing*, 2007.
 - Journal Special Issue on “Multimedia Databases,” *Information Systems (Elsevier)*, 2005.
 - Journal Special Issue on “Multimedia Databases,” *Multimedia Tools and Application Journal (MTAP, Kluwer)*, 2004.
8. Professional and Honorary Organizations
- Institute of Electrical and Electronics Engineers (IEEE), USA: Senior Member since June 2003; Member since 1995.
 - Association for Computing Machinery (ACM), USA: Distinguished Scientist since 2012; Senior Member since December 2010; Member since 1995.
 - American Association for the Advancement of Science (AAAS), USA: Member since February 2012.
 - Chair, Technical Committee on Multimedia Computing (TCMC), IEEE Computer Society, September 1, 2015 - present.
 - Vice Chair, Technical Committee on Multimedia Computing (TCMC), IEEE Computer Society, October 1, 2010 - August 31, 2015.
 - Member, IEEE Transactions on Multimedia (T-MM) Steering Committee, Representing Computer Society, January 1, 2014 – December 31, 2016.

- Member and Chair of the Board of Publications, Technical Committee on Human Centric Communications (HCCTC, IEEE COMSOC), 2008-2012.
 - Member, ICME Steering Committee, Representing Computer Society, January 1, 2011 - December 31, 2012.
 - Member, Technical Committee on Semantic Computing (TCSEM), IEEE Computer Society, since January 1, 2014.
 - Member, Multimedia Communications Technical Committee (IEEE MMTC), IEEE Communication Society, since November 2010.
 - Member, Technical Committee on Knowledge Acquisition in Intelligent Systems, IEEE SMC Society, since 2005.
9. Honors and Awards:
- AAAS Fellow, American Association for the Advancement of Science, 2017.
 - The Eighth Annual Excellence in Research Journal Award - outstanding Media and Communications article for 2015, IGI Global, August 2016.
 - Best Paper Award, The 17th IEEE International Conference on Information Integration and Reuse, August 2016.
 - Best Paper Award, The 15th IEEE International Conference on Information Integration and Reuse, August 2014.
 - SIRI Outstanding Service Award, for outstanding service to IEEE IRI Conferences, Society for Information Reuse and Integration, August 2014.
 - Outstanding Contribution Award, Program Co-Chair, The IEEE International Conference on Semantic Computing, 2014.
 - Best Paper Award, IEEE International Symposium on Multimedia, December 2013.
 - IEEE Computer Society Technical Achievement Award, 2012 ("For pioneering contributions to multimedia data mining, management and retrieval"). Only up to 5 recipients each year are awarded this award. Watch the Award Ceremony Video at http://www.youtube.com/watch?feature=player_embedded&v=KL-imsZApeU
 - ACM 2012 Distinguished Scientists Award ("For contributions to multimedia data mining and semantic-based multimedia retrieval").
 - 5-Year Service Award, Miami Chinese Language School, 2012.
 - Best Paper Award, The 13th IEEE International Conference on Information Integration and Reuse, August 2012.
 - SIRI Fellow, Society for Information Reuse and Integration, 2010.
 - The Best Published Journal Article in IJMDEM for 2010 Award, IGI Global, April 2011.
 - Best Student Paper Award, The Third IEEE International Conference on Semantic Computing, 2009.
 - Certificate of Appreciation, IEEE Computer Society, 2014, 2010, 2008.
 - Service Award, Program Vice-Chair, The 2008 IEEE International Conference on Information Reuse and Integration (IRI-2008), 2008.
 - The Johnson A. Edosomwan Scholarly Productivity Award, College of Engineering, University of Miami, 2007.
 - Citation: Marquis Who's Who in America, 2007, 2008, 2009, 2010.
 - Citation: Who's Who Among American Teachers & Educators, 2006-2007.
 - Service Award, Program Chair, The 2005 IEEE International Conference on Information Reuse and Integration (IRI-2005), 2005.
 - Research Paper Award Finalist for paper entitled "Learning-Based Spatio-Temporal Vehicle Tracking and Indexing for Transportation Multimedia Database Systems," (appeared in *IEEE Transactions on Intelligent Transportation Systems* in 2003), University of Miami, College of Engineering, 2004.
 - "Excellence in the Research and Application of Advanced Computing and Internet Technologies to Further NOAA's Service to the Nation" Metadata Management Award, NOAA TECH 2004.
 - Citation: International Who's Who of Information Technology, 1999.
10. Advising Activities:
- Current Ph.D. Students:
 - (1) Ahmed Talaat El-Sayed Soliman
 - (2) Muhammad Saad Sadiq
 - (3) Tarek Sayed

- (4) Yudong Tao
- (5) Yuexuan Tu

- Post Ph.D. Students:

- (1) Yilin Yan (August 2018)
- (2) Qiusha Zhu (May 2014)
- (3) Tao Meng (December 2013)
- (4) Chao Chen (August 2012)
- (5) Zifang Huang (May 2012)
- (6) Bassem Abdullah (May 2012)
- (7) Lin Lin (August 2010)
- (8) Hongli Luo (June 2006)
- (9) Choochart Haruechaiyasak (June 2003)

- Post MS Students (Thesis Option):

- (1) Michael Jankulak (August 2012)
- (2) Varsha Sainani (May 2009)
- (3) Nicholas Carrasco (June 2007)
- (4) Zongxing Xie (May 2007)
- (5) Shaminda Subasingha (December 2005)
- (6) Guy Ravitz (May 2005)
- (7) Indika Priyantha Kuruppu-Appuhamilage (May 2005)
- (8) Maththondage Chamara Sisirawansa Ranasingha (December 2004)

- Post MS Students (Non-Thesis Option):

- (1) Stephen Moody (May 2015)
- (2) Ashley E. Huff (December 2007)
- (3) Ilya Kozavchinsky (December 2007)
- (4) Miguel Puerto (May 2007)
- (5) Justin Tyler Archie (May 2006)
- (6) Thiago Quirino (May 2005)
- (7) Gbemi Anne Ogunrinde (May 2003)

- Post BS Students (Senior Projects):

- (1) Thomas Frazel (May 2016)
- (2) Ahmed Mohammed Gaziani (May 2016)
- (3) Nicholas Ryan Mendez (May 2016)
- (4) Lourdes Montero (May 2016)
- (5) Andrew Medhat Gabriel (May 2015)
- (6) Ming Ma (May 2015)
- (7) Elsa Maria Rodriguez Plaza (May 2015)
- (8) Menghao Lin (May 2015)
- (9) Ni Yang (May 2015)
- (10) Xianming Zhou (May 2015)
- (11) Yang Liu (May 2014)
- (12) Alexander Rodriguez (December 2012)
- (13) Thamer Abdulaziz Almutairi (December 2012)
- (14) Johnathan Robert Hunter (May 2011)
- (15) Ryan Amundsen (May 2008)
- (16) Evelyn Ruth Lawrence (May 2008)
- (17) Robert Justin Ascani (May 2006)
- (18) Aaron Christopher Metz (May 2006)
- (19) Jeremy Gerson (May 2005)
- (20) Patrice Mincey (May 2005)
- (21) Mike Waldron (May 2005)
- (22) Matti Waarna (May 2004)

- (23) Chris Dosen (May 2004)
- (24) Deepak Thani (December 2003)
- (25) Leon B. Xia (May 2003)
- (26) Manuella Okantey (May 2002)

11. Other Professional Activities:

- General Chair:
 - The First IEEE International Conference on Multimedia Information Processing and Retrieval, Miami, Florida, USA, April 10-12, 2018.
 - The IEEE International Symposium on Multimedia, San Jose, California, USA, December 11-13, 2016.
 - The Tenth IEEE International Conference on Semantic Computing, February 3-5, 2016.
 - The Ninth IEEE International Conference on Semantic Computing, February 7-9, 2015.
 - The 4th International Conference on Multimedia and Ubiquitous Engineering, August 11-13, 2010.
- Founder and Program Chair: ACM MMDB (2003-2004), IEEE MDDM (2006), IEEE MIPR (2005-2008, 2010-2016, 2018), MDDE (2012), IEEE DIM (2012-2017), IEEE SMM (2011-2016), IEEE MBDDL (2018).
- Program Chair, Vice Chair, Area Chair, International Chair: more than 50 conferences/workshops (mostly IEEE and ACM).
- Other Organizing Committee and Program Committee: more than 200 conferences/workshops/symposiums.