CURRICULUM VITAE

Dr. Sharifah Mumtazah bt Syed Ahmad Abdul Rahman
Department Computer & Communication Systems Engineering.
Faculty Of Engineering, Universiti Putra Malaysia
43400 UPM-Serdang, MALAYSIA

T : 03 . 8946 6436
F : 03 . 8656 7127
M : s_mumtazah@eng.upm.edu.my

Nationality

Malaysian

Educations

1. Taiping Mara Junior Science College, Malaysia
2. Multimedia University, Malaysia
3. University of Kent, UK

Academic Qualifications

Certificate / Qualification obtained	Name of School / Institution	Year	Area of Specialization
Degree in Philosophical Doctorate (PhD)	University of Kent, UK	2004	Biometrics, Electronics
Master in Science (MSc)	University of Kent, UK	2000	Communications Systems Engineering
Bachelor in Engineering (BEng)	University of Kent, UK	1999	Computer Systems Engineering

Professional Qualification/Members

- Member, Institute of Electrical and Electronics Engineers (IEEE), USA

- Member, ISO / IEC JTC 1 / CS37 on Biometrics, USA

Experience : Full-Time

Employer	Designation	Department	Start Date	Date Ended
Universiti Tun Abdul Razak (UNITAR)	Lecturer	Faculty of Information Technology	August 2004	October 2006
UniversitiTenagaNasional (UNITEN)	Senior Lecturer / Head of Department	Department of Systems & Networking, College of IF	Nov 2006	March 2011
Universiti Putra Malaysia (UPM)	Senior Lecturer	Department of Computer & Communication Systems, Faculty of Engineering	April 2011	Ongoing

Experience : Full-Time

- Biometrics
- Security
- Image Processing
- Signal Processing
- Machine Learning
- Steganography

Research Grants

Project No.	Project Title	Role	Year	Source of fund	Status
ERGS Fund (ERGS/1/11/PK/UPM/02/5)	A Novel Online & Offline Human Handwritten Signature based Steganography System	Project leader	Sept, 2011	MOHE	Ongoing
FRGS Fund (01090011 FRGS)	Analysis of Static & Dynamic Features Belonging To Genuine and Forged Signature Samples	Project Leader	Sept, 2009	MOHE	Completed
TNB- Internal Work Plan (Flagship Project)	Offline Lexical Handwriting Recognition and Their Semantic Interpretation	Project Leader	April, 2009	TNB	Completed
E Science Fund (01-02-03-SF0073)	Design and Development of an Intelligent Automatic Signature Verification System	Project leader	Jan, 2007	MOSTI	Completed

Consultancy Projects

Project No.	Project Title	Role	Year	Source of fund	Status
TNB Research	District Power Distribution Automation System	Co Researcher	April, 2008	TNBR	Completed

Student Supervisions

- 2 PhD students (1 Principal, 1 Committee) . 2 on-going
- 6 MSc by Research students (6 Principal and 2 Committee) . 4 completed and 4 on-going

Publications

Journal

1. Sorayya Malek, Aishah Salleh, Pozi Milow, Mohd Sapiyan Baba, **S. A. Sharifah,** "Applying Artificial Neural Network Theory to Exploring Abundance at Tropical Lake", to be published in Journal of Freshwater Ecology, 2012.
   DOI: 10.1080/02705060.2011.635883

2. Sorayya Malek, **Sharifah M Syed Ahmad**, Sarinder Kaur K Singh, Pozi Milow, Aishah Salleh, "Assessment of Predictive Models for Chlorophyll-a Concentration of a Tropical Lake", BMC Bioinformatics, Vol. 12(Suppl 13), 2011.

3. M. Sorayya, S. Aishah, B. Mohd. Sapiyan, **S.A. Sharifah Mumtazah**, "A Self Organising Map (SOM) Guided Rule Based System for Freshwater Tropical Algal Analysis and Prediction", Scientific Research and Essays, Vol. 6(25), pp. 5279-5284, October, 2011.

4. Omar Noori, **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, "An Adaptive Approach for Malay Cheque Words Recognition using Support Vector Machine", Scientific Research and Essays Vol. 6(6), pp. 1328. 1336, March, 2011.

5. Omar Noori, **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, "Offline Malay Handwritten Cheque Words Recognition using Artificial Neural Network", Journal of Applied Science, Vol. 11, No. 1, 2010.

6. Yousra Abdulaziz, **Sharifah Mumtazah Syed Ahmad**, "Comparative Study of Continuous Density Hidden Markov Models (CDHMM) and Artificial Neural Network (ANN) in Infants Cry Classification System", International Journal of Computer and Network Security (IJCNS), Vol. 2 No.6, 2010.

7. Noraini Seman, Zainab Abu Bakar, Haslizatul Fairuz Mohamed, NurAtiqah Sia Abdullah, **Sharifah Mumtazah Syed Ahmad**, "The Optimal Performance of Multi Layer Neural Network for Speaker Independent Isolated Spoken Malay Parlimentary Speech", Malaysian Journal of Computing, Vol. 1, No. 1 , 2010.

8. **Sharifah Mumtazah Syed Ahmad**, Mohammed Balkit Turki, Sorayya Malek, "Intelligent Computational Modeling and Prediction of Coliform Growth in Tropical Lakes based on Hybrid Self Organizing Maps (SOM) and Fuzzy Logic Approaches", e-Journal of Computer Science and Information Technology (eJCSIT), Issue 1, 2009.

Proceedings	1. Hamid Shojanazeri, Wan Azizun Wan Adnan, **Sharifah Mumtazah Syed Ahmad,** M. Iqbal Saripan, "Analysis of Watermarking Techniques in Video", Proceedings of International Conference on Hybrid Intelligent System, Dec 2011, Melacca, Malaysia.

2. Hui Cham, Sorayya Bibi Malek, **Sharifah Mumtazah Syed Ahmad**, Aishah Salleh, "Framework for Tropical Ecological Data Warehouse (TEDW) For Governance and Maintenance of Tropical Lakes", Proceedings of the International Conference on Environmental and Computer Science, September 2011, Singapore.

3. Yousra Abdulaziz, **Sharifah Mumtazah Syed Ahmad**, "An Accurate Infant Cry Classification System based on Continuous Hidden Markov Model", Proceedings of International Symposium on Information Technology 2010 (ITSIM'10) , June, 2010, Kuala Lumpur, Malaysia

4. **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, Masyura Ahmad Faudzi, Rina Md. Anwar, "Analysis Of 'Goat' Within User Population of an Offline Signature Biometrics", Proceedings of International Conference on Information Science, Signal Processing and Applications (ISSPA2010), May 2010, Malaysia.

5. Nurhaniza Bakri, Asma Shakil, **Sharifah Mumtazah Syed Ahmad**, Rina Md Anwar, Masyura Ahmad Faudzi, "Study of the Statistical Properties of Dynamic Features for Genuine and Forged Online Signature Samples", Proceedings of International Conference on Computer & Communication Engineering IIUM (ICCCE2010), May, 2010, Malaysia.

6. Jin Heng Oh, Sorayya Malek, **Sharifah Mumtazah Syed Ahmad**, Aishah Salleh, "A Comparison of ANN Architecture Towards Predicting Cyanobacteria Abundance at Tropical Putrajaya Lake and Wetlands", Proceedings of International Conference on Environmental Science and Technology (ICEST) 2010, April 23-25, 2010, Bangkok, May, 2010, Thailand.

7. Noraini Seman, Zainab Abu Bakar, Nordin Abu Bakar, Haslizatul Fairuz Mohamed, Nur Atiqah Sia Abdullah, Prasanna Ramakrisnan, **Sharifah Mumtazah Syed Ahmad**, "Evaluating Endpoint Detection Algorithms for Isolated Word from Malay Parliamentary Speech", Proceedings of International Conference on Information Retreival & Knowledge Management (CAMP2010), March, 2010, Malaysia.

8. Sorayya Malik, Aishah Salleh, **Sharifah Mumtazah Syed Ahmad**, "A Comparison Between Neural Network Based and Fuzzy Logic

Models for Chlorophyll-a Estimation", Proceedings of International Conference on Knowledge Discovery (ICKD2010), March, 2010, Indonesia.

9. Yousra Abdulaziz Mohammed, **Sharifah Mumtazah Syed Ahmad**, "Infant Cry Recognition System: A Comparison of System performance based on Mel Frequency and Linear Prediction Cepstral Coefficients", Proceedings of International Conference on Information Retreival & Knowledge Management (CAMP2010), March, 2010, Shah Alam, Selangor, Malaysia

10. Hasanah Zulcefli Muhammad, **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, "Synonym Based Malay Linguistic Text Steganography", Proceedings of Conference on Innovative Technologies in Intelligent Systems and Industrial Applications (CITISIA2009), 2009, Kuala Lumpur, Malaysia.

11. Mustafa Agil Muhammad Balbed, **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, "ANNOVA Based Feature Analysis and Selection in HMM-Based Offline Signature Verification System", Proceedings of Conference on Innovative Technologies in Intelligent Systems and Industrial Applications (CITISIA2009), 2009, Kuala Lumpur, Malaysia.

12. Sorayya Malek, Aishah Salleh, **Sharifah Mumtazah Syed Ahmad**, "Analysis of Algal Growth using Kohonen Self Organizing Maps (SOM) and its prediction using Rule-Based Expert System", Proceedings of IEEE International Conference on Information Management and Engineering (ICIME2009), 2009, Kuala Lumpur, Malaysia.

13. Nurhaniza Bakri, **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, "Offline Signature Verification System using Hidden Markov Model (HMM): Analysis of Varying Number of States and States Transition Topology", Proceedings of the IEEE International Conference on Computational Science and Engineering (ICCSE2009), 2009, Penang, Malaysia.

14. Omar Noori, **Sharifah Mumtazah Syed Ahmad**, "Reviews on Pre-Processing Techniques for Offline Handwritting Recognition System", Proceedings of Malaysia Science & Technology Congress (MSTC2008), 2008, Kuala Lumpur, Malaysia.

15. Abdul Rahman Khalid, **Sharifah Mumtazah Syed Ahmad**, AsmaShakil, Nawwar Che Pa, "A Comprehensive Power Restoration Approach Using Rule-Based Method for an 11kV Distribution Network", Proceedings of the 2nd IEEE International Power & Energy Conference (PECon2008), 2008, Johor Bahru, Malaysia.

16. AsmaShakil, **Sharifah Mumtazah Syed Ahmad**, Rina Md Anwar, Mustafa Agil Muhamad Balbed, "Analysis of the Effect of Different Features Performance on Hidden Markov Modeling based Online and Offline Signature Verification Systems", Proceedings of the IEEE International Conference on Digital Image Computing: Techniques and Applications (DICTA2008), 2008, Canberra,

Australia.

17. Hasanah Zulcefli Muhammad, **Sharifah Mumtazah Syed Ahmad**, AsmaShakil, "Recent Advancements in Linguistic Steganography Techniques", Proceedings of the International Conference on IT and Multimedia (ICIMu2008), 2008, Kuala Lumpur, Malaysia.

18. **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, Mustafa Agil Muhamad Balbed, "Study on the Effects on the Number of Training Samples on HMM based Online and Offline Signature Verification System", IEEE Proceedings of International Symposium on Information Technology (ITSIM2008), 2008, Kuala Lumpur, Malaysia.

19. **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, Rina Md Anwar, "Stability and Repeatability of HMM based Probability Outputs across Dynamic Handwritten Signature Features", IEEE Proceedings of International Symposium on Information Technology (ITSIM2008), 2008, Kuala Lumpur, Malaysia.

20. **Sharifah Mumtazah Syed Ahmad**, Asma Shakil, Mustafa Agil Muhamad Balbed, "Offline Signature Verification System Using Hidden Markov Model using MATLAB Environment", IEE Proceedeings of the International Conference on Applied Computer and Applied Computational Science (WSEAS-ACACOS2008), 2008, Hangzhou, China.

21. **Sharifah Mumtazah Syed Ahmad**, AsmaShakil, Abdul Rahim Ahmad, Mustafa Agil Muhamad Balbed, Rina Md Anwar, "SIGMA- A Malaysian Signature's Database", IEEE Proceedings of ACS International Conference on Computer Systems and Applications (AICCSA2008), 2008, Doha, Qatar.

22. **Sharifah Mumtazah Syed Ahmad**, "Defining and Managing Instabilities in the Signing Patterns of Signature Biometrics User Population", International Conference on Robotics, Vision, Information and Signal Processing, November (ROVISP 2007), 2007, Penang, Malaysia.

23. **Sharifah Mumtazah Syed Ahmad**, "A Hybrid Feature Weighting and Feature Selection Approach in an Attempt to Increase Signature Biometrics Accuracy", IEEE Proceedings of the International Conference on Electrical Engineering and Informatics, June (ICEEI2007), Bandung, Indonesia.

24. **Sharifah Mumtazah Syed Ahmad**, Abdul Rahim Ahmad, AsmaShakil, Rina Md Anwar, Shaheeda Begum, "Hybrid Online and Offline Malaysian Signature and Malay Handwriting Data Collection", Proceedings of Conference on IT Research & Application (CITRA2007), April, 2007, Kuala Lumpur, Malaysia.

25. **Sharifah Mumtazah Syed Ahmad**, "Multiple Classifiers Error Rate Optimization Approaches of an Automatic Signature Verification System", Proceedings of International Conference on Computer Vision Theory and Applications (VISAPP2007), March, 2007, Barcelona, Spain.

26. **Sharifah Mumtazah Syed Ahmad**, "Empirical Tuning Approach of

an Automatic Signature Verification System,q Proceedings of International Conference of Malaysian Research Group (MRG-IC06), June, 2006, Salford, United Kingdom.

27. **Sharifah Mumtazah Syed Ahmad**, Ethical, Legal and Technical Issues of Biometrics,q IEEE Proceedings of International Conference on Communication and Computer Engineering (ICCCE2006), May, 2006, Kuala Lumpur, Malaysia.

28. **Sharifah Mumtazah Syed Ahmad**, Mike Fairhurst, Feature Level Optimization of an Automatic Signature Verification System,q IEEE Proceedings of International Conference Robotics, Vision, Information and Signal Processing (ROVISP2005), July, 2005, Penang, Malaysia.

29. **Sharifah Mumtazah Syed Ahmad**, Automatic Signature Verification (ASV) In E-Commerce,q Proceedings of International Conference on E-Commerce, January, 2005, Kuala Lumpur, Malaysia.

Other publications

1. **Sharifah Mumtazah Syed Ahmad**, %Biometric ID versus User Privacy+, Computimes, 27th September 2004.

Awards & Recognitions

Name of awards	Title	Award Authority	Award Type	Year
Academic Awards	Rotary Prize Award	University of Kent	University level	1999
Academic Awards	Excellence Bursaries	University of Kent	University level	1997
Non-Academic Awards	Gold Medal (District Power Distributed Automation System)	Malaysia Technology Expo	National level	2009
Non-Academic Awards	Silver Medal (My StegaLink)	Malaysia Technology Expo	National level	2009
Non-Academic Awards	Silver Medal (Automatic Signature Verification System)	Malaysia Technology Expo	National level	2008
Awards of Merit	Best Researcher Award	Universiti Tenaga Nasional (UNITEN)	University level	2007