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EDUCATION

2011 - PhD in Computer Science, Universiti Sains Malaysia
2004 - Master of Multimedia Computing, Monash University, Australia
2000 - Bachelor of Science (Hons.) Information Technology, Uni. Technology MARA, Malaysia
1994 – Sijil Pelajaran Malaysia (Attended MARA Junior Science College, Terendak, Malacca)
1992 – Sijil Rendah Pelajaran (Attended Sekolah Menengah Bandar Baru Bangi, Selangor)

FIELDS OF INTEREST & AREAS OF EXPERTISE

- Computer vision and machine learning applications.
- Digital Image/Video processing applications.

EMPLOYMENT

1. **Senior Lecturer** at the Faculty of Computer Science & Information Technology, Universiti Putra Malaysia → 2011- present
2. **Tutor** at the Faculty of Computer Science & Information Technology, Universiti Putra Malaysia → 2001- 2011
3. **Information Technology Executive** at Matsushita Display Devices Corporation (Malaysia) Pty. Ltd., Shah Alam, Selangor → 1999 - 2001

PUBLICATIONS

Journal articles

1. Khalaf, A. D., Hamdan, H., **Halin A. A**., & Manshor, N., "LANET: A Deep Lightweight Attention Network for Skin Cancer Segmentation", Computer Modeling in Engineering & Sciences, vol. 147, no. 2, pp. 1-25, 2026. (**DOI**: 10.32604/cmes.2026.075537)

2. Idris, B. Abdullah L. N., **Halin A. A.**, & Selimun M. T. A., "Modified SIFT-Based Kirsch Edge Detection Approach for Copy-Move Forgery Detection", Journal of Applied Sciences, Engineering and Technology and Education, vol. 2, no. 2, 2025.

3. Khalaf, A. D., Hamdan, H., **Halin A. A**., & Manshor, N., "Segmentation and Classification of Skin Cancer Diseases Based on Deep Learning: Challenges and Future Directions", IEEE Access, vol. 13, pp. 90163-90184, 2025.

4. Almsaadi, J. R. M., Manshor, N., Affendey, L. S., **Halin A. A**., & Mirza, M. R. "HDN-Net: A Hybrid Deep Neural Network to Improve Iris Recognition in Unconstrained Environments with Eyeglasses", Journal of Advanced Research in Applied Sciences and Engineering Technology, vol. 54, no. 2, pp 238–251, 2024.

5. Jiang, C., **Halin A. A.**, Yang, B., Abdullah, L. N., Manshor, N., & Perumal, T., "Res-UNet Ensemble Learning for Semantic Segmentation of Mineral Optical Microscopy Images.", Minerals, vol. 14, no. 12, 2024: 1281.

6. Malkawi, A., Kamaruddin, A., **Halin A. A.**, & Admodisastro, N. "Listening to the Voice of People with Vision Impairment", International Journal of Advanced Computer Science and Applications, vol. 14, no. 4, 2023.

7. Razali, M. S., **Halin A. A.**, Chow, Y. W., Norowi, N. M., & Doraisamy, S. "Context-driven satire detection with deep learning.", IEEE Access Vol. 10, pp 78780-78787, 2022.

8. Seydi, S. T., Rastiveis, H., Kalantar, B., **Halin A. A.**, & Ueda, N. "BDD-Net: An end-to-end multiscale residual CNN for earthquake-induced building damage detection. Remote Sensing, vol. 14, no. 9, 2214, 2022.

9. Jifroudi, H. M., Mansor, S. B., Pradhan, B., **Halin A. A.**, Ahmad, N., & Abdullah, A. F. B. "A new approach to derive buildings footprint from light detection and ranging data using rule-based learning techniques and decision tree.", Measurement, vol. 192, 110781, 2022.

10. Seydi, S. T., Saeidi, V., Kalantar, B., Ueda, N., & **Halin, A. A.**, "Fire-Net: A Deep Learning Framework for Active Forest Fire Detection.", Journal of Sensors, vol. 1, 8044390, 2022.

11. Idris, B., Abdullah, L. N., **Halin A. A.**, & Selimun, M. T. A. "Comparison of Edge Detection Algorithms for Texture Analysis on Copy-Move Forgery Detection Images", International Journal of Advanced Computer Science and Applications, vol. 13, no. 10, pp 152-160, 2022.

12. Hasanpour Zaryabi, E., Moradi, L., Kalantar, B., Ueda, N., & **Halin A. A.** "Unboxing the black box of attention mechanisms in remote sensing big data using XAI.", Remote Sensing, vol. 14, no. 24, 6254, 2022.

13. Anuar, M. M., **Halin A. A.**, Perumal, T., & Kalantar, B. “Aerial imagery paddy seedlings inspection using deep learning.”, Remote Sensing, vol. 14, vo. 2, 274, 2022.

14. Jumaah, H. J., Kalantar, B., **Halin A. A.**, Mansor, S., Ueda, N., & Jumaah, S. J. “Development of UAV-based PM2. 5 monitoring system”, Drones, vol. 5, no. 3, 60, 2021.

15. Ameen, M. H., Jumaah, H. J., Kalantar, B., Ueda, N., **Halin A. A.**, Tais, A. S., & Jumaah, S. J. “Evaluation of PM2. 5 particulate matter and noise pollution in Tikrit University based on GIS and statistical modelling.”, Sustainability, no. 13, vol. 17, 9571, 2021.

16. Razali M. S., **Halin A. A.**, Ye L., Doraisamy S. C. and Norowi. N., “Sarcasm Detection using Deep Learning with Contextual Features”, IEEE Access, vol. 9, pp. 68609-68618, 2021.

17. Razali M. N., Manshor N., **Halin A. A.**, Mustapha N. and Yaakob R., “Extremal Region Selection for MSER Detection in Food Recognition”, Akademi Sains Malaysia Science Journal, vol. 15, pp. 1-11, 2021.

18. Razali M. N., Manshor N., **Halin A. A.**, Mustapha N. and Yaakob R., “Fuzzy Encoding with Hybrid Pooling for Visual Dictionary in Food Recognition”, Indonesian Journal of Electrical Engineering and Computer Science, vol. 21, no. 1, pp. 179-195, 2021.

19. Kalantar B., Ueda N., Saeidi V., Ahmadi K., **Halin A. A.** and Shabani F., “Landslide Susceptibility Mapping: Machine and Ensemble Learning Based on Remote Sensing Big Data”, Remote Sensing, vol. 12, no. 11, article #: 1737, 2020.

20. Kalantar B., Ueda N., Al-Najjar A. H., **Halin A. A.**, “Assessment of Convolutional Neural Network Architectures for Earthquake-Induced Building Damage Detection based on Pre-and Post-Event Orthophoto Images”, Remote Sensing, vol. 12, num. 12, article #: 3529, 2020.

21. Kalantar B., Al-Najjar A. H., Pradhan B., Saeidi V., **Halin A. A.**, Ueda N. and Naghibi A. A., "Optimized Conditioning Factors using Machine Learning Techniques for Groundwater Potential Mapping", Water, vol. 11, no. 9, article #: 1909, 2019

22. A. H. Al-Najjar, Kalantar B., Pradhan B., Saeidi V., **Halin A. A.**, Ueda N. and Mansor S., "Land Cover Classification from fused DSM and UAV Images Using Convolutional Neural Networks", Remote Sensing, vol. 11, no. 12, article #: 1461, 2019.

23. Nahar K. M. O., Al-Khatib R. M., Barhoush M. and **Halin A. A.**, "MPF-LEACH: modified probability function for cluster head election in LEACH protocol", International Journal of Computer Applications in Technology, vol. 60, no. 3, pp. 267-280, 2019.

24. Ashour M. W., Khalid F. and **Halin A. A.**, Abdullah L. N. and Darwish S. H., "Surface Defects Classification of Hot-Rolled Steel Strips Using Multi-directional Shearlet Features", Arabian Journal for Science and Engineering, 2018.

25. Wai Shiang, C., **Halin A. A.**, Keng Yap, Ng. et al., "Ontology reuse for multi-agent systems development through pattern classification", Software: Practice and Experience, vol. 48, no. 11, pp. 1923-1939, 2018.

26. Razali M. N., Manshor N., **Halin A. A.**, Yaakob R., and Mustapha N., "Recognition of Food with Monotonous Appearance using Speeded-Up Robust Feature (SURF)", International Journal of Engineering & Technology, vol. 7, no. 4.31, pp. 204-207.

27. Kalantar B., Mansor S. B., **Halin A. A.**, Shafri H. Z. M. and Zand M., "Multiple Moving Object Detection from UAV Videos using Regional Adjacency Graphs", IEEE Transactions on Geoscience and Remote Sensing, vol. 55, no. 9, pp. 5198-5213, 2017.

28. Shiang, C. W., Ahmad Puad, A. S., Hong, P. C., **Halin. A. A.**, "Agent-Oriented Requirement Engineering for Mobile Application Development", International Journal of Interactive Mobile Technologies, vol. 11, no. 6, pp. 32-48, 2017.

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33. Shiang C. W. and **Halin A. A.** "Long Lamai Community ICT4D E-Commerce System Modelling - An agent oriented role-based approach", The Electronic Journal of Information Systems in Developing Countries, vol. 75, no. 2, pp. 1-22, 2016.

34. Ashour M. W., Khalid F. and **Halin A. A.**, "Multi-class Support Vector Machines for Texture Classification using Gray-level Histogram and Edge Detection Features", International Journal of Advances in Electronics and Computer Science, vol. 3, no. 3, pp. 1-5, 2016.

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36. Shiang C. W., Mit E., **Halin A. A.**, "Shared Single Display Application: An Interactive Patterns Approach", International Journal of Software Engineering and Its Applications, vol. 9, no. 2, pp. 233-250, 2015.

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39. Law T. H., Ghanbari M., Hamid H., **Halin A. A.**, Ng C. P., "Examining the Effect of Visual Treatments on Truck Drivers' Time-to-arrival Judgments of Motorcycles at T-intersections", Transportation Research Part F: Traffic Psychology and Behaviour, vol. 33, pp. 66-74, (August) 2015.

40. Ashour M. W., Khalid F., Abdullah L. N., **Halin A. A.**, "Artificial Neural Network-Based Texture Classification Using Reduced Multidirectional Gabor Features", *International Review on Computers and Software*, Vol. 9, No. 6, pp. 1007-1016, 2014.

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42. **Halin A. A.**, and Rajeswari M., "Goal Event Detection in Soccer Videos via Collaborative Multimodal Analysis", *Pertanika Journal of Science and Technology*, vol. 21, no. 2, pp. 423-442, 2013.

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44. Sharef N.M., **Halin A. A.**, and Mustapha N., "Modelling Knowledge Summarization By Evolving Fuzzy Grammar", *American Journal of Applied Sciences*, vol. 10, no. 6, pp. 606-614, 2013.

45. Ping H. Y., Abdullah L. N., Sulaiman P. S., and **Halin A. A.**, "Computer Facial Animation: A Review", *International Journal of Computer Theory and Engineering* , vol. 5, no. 4, pp. 658-662, 2013.

46. Ping H. Y., Abdullah L. N., **Halin A. A.**, Sulaiman P. S., "A Study of Physiological Signals-based Emotion Recognition Systems",*International Journal of Computer and Technology* , vol. 11, no. 1, pp. 2189-2196, 2013.

47. Jantan A. H., **Halin A. A.**, and Mansor E. I., "Modeling Complex Processes, Navigations, and User Interface in Web Applications",*International Journal of Computer and Information Technology*, vol. 2, no. 5, pp. 924-933, 2013.

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49. Rahiman A. R., Manshor N., **Halin A. A.**, Sumari P., and Kamarulhaili H., "GR-FB Block Cleaning Scheme in Flash Memory" *ACEEE International Journal of Network Security*, vol. 2, no. 4, pp. 37-41, 2011.

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Conferences Proceedings

1. Razali, M. S., **Halin, A. A.**, Chow, Y. W., Norowi, N. M., & Doraisamy, S. “Sarcasm Relation to Time: Sarcasm Detection with Temporal Features and Deep Learning”, In Pacific Rim International Conference on Artificial Intelligence, pp. 287-297, 2023, (Singapore: Springer Nature Singapore).

2. Moradi, L., Kalantar, B., Zaryabi, E. H., **Halin, A. A.**, & Ueda, N. “On the use of XAI for CNN model interpretation: a remote sensing case study”, In 2022 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), pp. 1-5, 2022.

3. Zaryabi, E. H., Kalantar, B., Moradi, L., **Halin, A. A.**, & Ueda, N. “MSBDA-Net: multi-scale siamese building damage assessment network”, In 2022 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), pp. 1-6, 2022.

4. A. S. Humidan, L. N. Abdullah and **Halin A. A.**, "Detection of Compressed DeepFake Video Drawbacks and Technical Developments", In 2022 5th International Conference on Signal Processing and Information Security (ICSPIS), Dubai, United Arab Emirates, pp. 11-16, 2022.

5. Razali, M. S., **Halin, A. A.**, Chow, Y. W., Norowi, N. M., & Doraisamy, S. "Deep Learning Metaphor Detection with Emotion-Cognition Association", In 2022 International Conference on Digital Transformation and Intelligence (ICDI), pp. 8-14, 2022.

6. Idris, B., Abdullah, L. N., Selimun, M. T. A., & **Halin, A. A.** "Copy-Move Forgery Detection Using Canny Edge Detector and SIFT-Based Blob Analysis", In International Conference on Computational Science and Technology, pp. 595-614, 2022. (Singapore: Springer Nature Singapore).

7. B. Kalantar, S. S. Ojogbane, S. T. Seydi, **Halin A. A.**, S. Mansor and N. Ueda, "A Deep Learning Approach for Automated Building Outlines Extraction in Compact Urban Environments," IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium, Kuala Lumpur, Malaysia, pp. 7491-7494, 2022.

8. B. Kalantar, S. T. Seydi, N. Ueda, V. Saeidi, **Halin A. A.** and F. Shabani, "Deep Ensemble Learning for Land Cover Classification Based on Hyperspectral Prisma Image," IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium, Kuala Lumpur, Malaysia, pp. 3612-3615, 2022.

9. Mahmoud, A. S., Kalantar, B., Al-Najjar, H. A., Moayedi, H., **Halin A. A.**, & Mansor, S. "Object-oriented approach for urbanization growth by using remote sensing and GIS techniques: A case study in Hilla city, Babylon Governorate, Iraq", In Geospatial Technology and Smart Cities: ICT, Geoscience Modeling, GIS and Remote Sensing, pp. 39-57, 2021.

10. Ashour M. W., Khalid F., **Halin A. A.**, Darwish, S.H. and Abdulrazzaq M. M., "A Review on Steel Surface Image Features Extraction and Representation Methods", in proceedings of the International Conference for Emerging Technologies in Computing, pp. 239-250, 2020.

11. Kalantar B., Ameen M.H., Jumaah H.J., Jumaah S.J. and **Halin, A. A.**, "Zab River (Iraq) Sinuosity and Meandering Analysis based on Remote Sensing Data" in the The International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences, Vol. 43, pp. 91-95, 2020.

12. Kalantar B., Ueda, N., Al-Najjar HAH, **Halin A. A.**, Ahmadi P. and Gibril MBA, "A Comparison Between Three Conditioning Factors Dataset for Landslide Prediction in the Sajadrood Catchment of Iran" in XXIV International Society for Photogrammetry and Remote Sensing Congress, 2020 (Nice, France), Vol. 3, pp. 625-632, 2020.

13. Kalantar B., Ueda N., Lay U. S., A. H. Al-Najjar, **Halin A. A.**, "Conditioning Factors Determination for Landslide Susceptibility Mapping Using Support Vector Machine Learning", IGARSS 2019-2019 IEEE International Geoscience and Remote Sensing Symposium, pp. 9626-9629, 2019.

14. Kalantar B., Ueda N., A. H. Al-Najjar and **Halin A. A.**, Ahmadi P., Gibril M. B. A., "On the effects of different groundwater inventory scenarios for spring potential mapping in Haraz, northern Iran", Earth Resources and Environmental Remote Sensing/GIS Applications X, vol. 11156, article #: 115612, 2019.

15. Kalantar, B. , **Halin, A. A.**, Al-Najjar, H. A. H., Mansor, S., van Genderen, J. L., Shafri, H. Z. M. and Zand, M. "26 - A Framework for Multiple Moving Objects Detection in Aerial Videos", in Spatial Modeling in GIS and R for Earth and Environmental Sciences (Eds: Hamid Reza Pourghasemi, Candan Gokceoglu), pp. 573-588, 2019.

16. Kalantar, B., Ueda, N., Al-Najjar, H. A. H., Moayedi, H., Halin, A. A. and Mansor, S., "Uav and LIDAR Image Registration: a Surf-Based Approach for Ground Control Points Selection" in the International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences , XLII-2/W13, pp. 413-418, 2019. (ISPRS Geospatial Week 2019, 10–14 June 2019, Enschede, The Netherlands)

17. Saud Azeez, O., Kalantar, B., Al-Najjar, H. A. H., **Halin, A. A.**, Ueda, N., and Mansor, S, "Object Boundaries Regularization using the Dynamic Polyline Compression Algorithm" in the International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences , Vol. 42, No. 4, pp. 541-546, 2018. (ISPRS TC IV Mid-term Symposium "3D Spatial Information Science – The Engine of Change", 1–5 October 2018, Delft, The Netherlands)

18. Kalantar, B., Mansor, S., **Halin, A. A.**, Ueda, N., Shafri, H. Z. M. and Zand, M. "A graph-based approach for moving objects detection from UAV videos" in Proceedings of SPIE Remote Sensing: Image and Signal Processing for Remote Sensing XXIV, Vol. 107891Y, 2018 (10-13 September 2018, Berlin, Germany)

19. Kalantar B., Idrees, M. O., Mansor S. B. and **Halin A. A.**, "Smart Counting – Oil Palm tree inventory with UAV" in Coordinates Magazine, vol. 13, no. 5, pp. 17-22, May 2017.

20. Razali M. S., **Halin A. A.**, Norowi N. and Doraisamy S. C., "The Importance of Multimodality in Sarcasm Detection for Sentiment Analysis" 2017 15th IEEE Student Conference on Research and Development (SCOReD), pp. 56-60, 2017 (13-14 December 2017, Putrajaya, Malaysia).

21. Razali M.N., Manshor N., **Halin A.A.**, Yaakob R., Mustapha N., "Food Category Recognition Using SURF and MSER Local Feature Representation", In: Badioze Zaman, H., Robinson, P., Smeaton, A.F., Shih, T.K., Velastin, S., Terutoshi, T., Jaafar, A., Mohamad Ali, N. (Eds.), Advances in Visual Informatics - 5th International Conference on Advances in Visual Informatics 2017, pp. 212-223, vol. 10645, 2017. (Bangi, Malaysia).

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23. Kalantar B., Mansor S., Shafri H. Z. M. and **Halin A. A.**, "Integration Of Template Matching And Object-Based Image Analysis For Semi-Automatic Oil Palm Tree Counting In UAV Images", accepted for oral presentation at 37th Asian Conference on Remote Sensing, 17-21 October 2016, Colombo, Sri Lanka.

24. Aryanfar A., **Halin A. A.**, Yaakob R. and Sulaiman M. N., "A Bibliometric Analysis of Human Action Recognition" accepted for oral presentation at the SAI Intelligent Systems Conference, Sept. 21-22 2016, London, United Kingdom.

25. Zand M., Doraisamy S. C., **Halin A. A.**, Mustaffa M. R., "Automatic Object Segmentation Using Perceptual Grouping of Regions with Contextual Constraints", 5th. International Conference on Image Processing Theory, Tools and Applications, pp. 530-534, 2015. (10 - 13 November 2015 - Orléans, France).

26. Aryanfar A., Yaakob, R., **Halin A. A.**, Sulaiman M. N. and Kasmiran K. A., "Multi-View Human Action Recognition Using Wavelet Data Reduction and Multi-Class Classification", Procedia Computer Science, vol. 62, pp. 585-592, 2015.

27. Abad, R. B. K., **Halin A. A.** and Bahari, M., "Nonintrusive Eye Gaze Tracking using a Single Eye Image", in 2015 IEEE International Conference on Signal and Image Processing Applications, pp. 139-144, 2015. (19-21 October 2015 - Kuala Lumpur, Malaysia).
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29. **Halin A. A.**, Sharef N. M., Jantan A. H. and Abdullah L. N., "License Plate Localization using a Naïve Bayes Classifier" *in IEEE International* Conference on Signal and Image Processing Applications (ICSIPA 2013), 8-10 October 2013, Malacca, Malaysia, pp. 20-24.
30. Jantan A. H., **Halin A. A.**, Mansor E. I., "Web Interaction Design: From Navigating Objects to User Interface Elements Presentation" in *2nd International Conference on Digital Enterprise and Information Systems*, 4-6 March 2013, Kuala Lumpur, Malaysia, pp. 41-48.
31. Jamil N., AlMisreb A. and **Halin A. A.**, "Illumination-invariant Ear Authentication", Procedia Computer Science, vol. 42, pp. 271-278, 2014. *Special issue: Medical and Rehabilitation Robotics and Instrumentation 2013 (MRRI2013), Editor: Hanafiah Yussof.*
32. Yaakob, R., Aryanfar A., **Halin A. A.** and Sulaiman M. N., "A Comparison of Different Block Matching Algorithms for Motion Estimation", *Procedia Technology*, vol. 11, pp. 199-205, 2013.
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35. Manshor N., **Halin A. A.**, Rajeswari M., and Ramachandram D., "Feature Selection via Dimensionality Reduction for Object Class Recognition" in *2nd International Conference on Instrumentation, Communications, Information Technology and Biomedical Engineering*, 8-9 November 2011, Bandung, Indonesia, pp. 223-227.
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37. **Halin A. A.**, M. Rajeswari, and D. Ramachandram, "Automatic Overlaid Text Detection, Extraction and Recognition for High Level Event/Concept Identification in Soccer Videos" in *International Conference on Computer and Electrical Engineering, 2008*, Phuket, Thailand, 2008, pp. 587-592.
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Book Chapters

1. Kalantar, B., Al-Najjar, H. A. H., Mojaddai, H. R., Maruwan, S. A. B. A., Idrees, M. O., **Halin, A. A.** and Mansor, S. "Urban Planning Using a Geospatial Approach: A Case Study of Libya" IntechOpen, DOI: 10.5772/intechopen.86355, 2019.

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3. Shahcheraghi Z., See J., **Halin A. A.**, "Image Abstraction Using Anisotropic Diffusion Symmetric Nearest Neighbor Filter", in *Advances in Multimedia Information Processing – PCM 2014, Lecture Notes in Computer Science,* Vol. 8879, pp. 343-352, 2014.

4. Abdullah L. N., Mansor E. I., **Halin A. A.** and Jantan A. H., "From Hype to Happiness; From Barriers to Drivers" in The Instructor’s Manual For Case Study Development And Its Application: A Case Of Computer Science Application, pp. 48-54, 2015. (Penerbit Universiti Putra Malayisa Press)

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1. **Halin A. A.**, M. Rajeswari "Shot View Classification using HSV-Color and Object Size", in *Computer Science Postgraduate Colloquium 2009*, 16-17 June 09, Jerejak Resort and Spa, Penang, Malaysia.
2. **Halin A. A.**, Rajeswari. M, Ramachandram. D., "Multimodal Video Analysis: A Review", in *Computer Science Postgraduate Colloquium 2007*, 25-26 June 07, Universiti Sains Malaysia, Penang, Malaysia.
3. **Halin A. A.,** Amin A.H.M., Cheah W.S., "Study on Information Filtering: Collaborative and Spam Filtering", in proceedings of the*Multimedia Departmental Seminar Notes Series*, 2005.

Unpublished Works

1. **Halin A. A.**, "Why Dot-coms Failed", Research paper for *The Internet and Multimedia (MMS5030)* course at Monash University (Caulfield), Australia, 2003.
2. **Halin A. A.**, "Usability of WAP-enabled Mobile Phones", Research paper for *The Multimedia Industry (MMS5950)* course at Monash University (Caulfield), Australia, 2003.
3. Shiang C. W., Amin A. H. M., and **Halin A. A.**, "Information Filtering", Research paper for *Data Mining (CSE5320)* course at Monash University (Caulfield), Australia, 2003.

RESEARCH GRANTS & ACTIVITIES

1. **Fundamental Research Grant scheme** (MOE, Malaysia)
   - Research topic: Deep Transfer Learning-based Machine Vision Classification for Grading and Quality Categorization
   - Amount: RM99,800.00
   - Duration: 36-months (December 2019 – April 2024)
   - Researchers: **Alfian Abdul Halin (Principal Investigator)**.

2. **Putra IPS Grant Scheme** (Universiti Putra Malaysia)
   - Research topic: Sarcasm Detection Using Machine Learning to Enhance Sentiment Analysis
   - Amount: RM24,500.00
   - Duration: 24-months (2 May 2018 – 2 August2020)
   - Researchers: **Alfian Abdul Halin (Principal Investigator)**, Md. Saifullah Razali (PhD Student).

3. **Fundamental Research Grant scheme** (MOE, Malaysia)
   - Research topic: Aesthetics Energy of Image Color-based Point of Regard Estimation for Distance Independent Non-Intrusive Eye Gaze Tracking
   - Amount: RM93,500.00
   - Duration: 35-months (1 December 2014 – 31 May 2018)
   - Researchers: **Alfian Abdul Halin (Principal Investigator)**, M. Iqbal Saripan, Shyamala C. Doraisamy, Mas Rina Mustaffa, Noridayu Manshor and Nursuriati Jamil (UiTM).

4. **Fundamental Research Grant scheme** (MOE, Malaysia)
   - Research topic: An Ensemble of Classifiers For Improving Multi-View Human Action Recognition
   - Amount: RM72,500
   - Duration: 24-months (1 December 2013 – 31 December 2015)
   - Researchers: Alihossein Aryanfar, Razali Yaakob (Principal Investigator), **Alfian Abdul Halin**, Khairul Azhar Kasmiran and Md. Nasir Sulaiman.

5. **Fundamental Research Grant scheme** (MOE, Malaysia)
   - Research topic: Wavelet-Based Illumination-Invariant Ear Code Generator
   - Amount: RM88,700
   - Duration: 24-months (1 August 2013 – 31 July 2015)
   - Researchers: Nursuriati Jamil (Principal Investigator – UiTM Shah Alam), **Alfian Abdul Halin (Principal Investigator in UPM)** and Nor Azura Md Ghani @ Mamat.

6. **Fundamental Research Grant scheme** (MOE, Malaysia)
   - Research topic: Software behavioral-based Energy Consumption Model for Developing Energy Efficient Mobile Applications
   - Amount: RM84,000
   - Duration: 24-months (1 December 2013 – 30 November 2015)
   - Researchers: Koh Tieng Wei (Principal Investigator), **Alfian Abdul Halin**, Abdul Azim Abdul Ghani, Khaironi Yatim Sharif and Khairul Azhar Kasmiran.

7. **UPM Research University Grant scheme**
    - Research Topic: Semantic Concepts Extraction from Sports Video
    - Amount: RM24,000
    - Duration: 24-months (1 November 2012 – 31 October 2014)
    - Researchers: **Alfian Abdul Halin (Principal Investigator)**, Lili Nurliyana Abdullah, Nurfadhlina M. Sharef and Azrul Hazri Jantan

8. **UPM Research University Grant scheme**
    - Research topic: Emotion recognition from physiological signal using semi-supervised learning algorithm for data-driven facial expression modeling
    - Amount: RM15,000
    - Duration: 24-months (1 November 2012 – 31 October 2014)
    - Researchers: Heng Yu Ping, Lili Nurliyana Abdullah (Principal Investigator), **Alfian Abdul Halin** and Puteri Suhaiza Sulaiman.

9. **Agensi Inovasi Malaysia Grant** (***completed***)
    - Research topic: Innovative solutions to reduce crashes between motorcycles and trucks
    - Amount: RM105,820
    - Duration: 12-months (1 January 2013 – 31 December 2013)
    - Researchers: Law Teik Hua (Principal Investigator), **Alfian Abdul Halin** and Hussain Hamid.

10. **UPM Research University Grant scheme** (***completed***)
    - Research Topic: Classifier Fusion for Improving Classification of Object Class Recognition
    - Amount: RM28,000
    - Duration: 24-months (15 April 2011 – 14 March 2013)
    - Researchers: Noridayu Manshor (Principal Investigator), **Alfian Abdul Halin**, Raja Azlina Raja Mahmood and Lily Suriani Affendey

11. **UPM Research University Grant scheme** (***completed***)
    - Research Topic: Enhancing Video-on-demand Server using Solid State Disk (SSD)
    - Amount: RM30,000
    - Duration: 24-months (30 April 2011 – 31 March 2013)
    - Researchers: Amir Rizaan Rahiman (Principal Investigator), **Alfian Abdul Halin** and Noridayu Manshor

12. **USM Research University Postgraduate Research scheme** (***completed***)
    - Research Topic: Sports Video Abstraction via Multi Modal Analysis – Using Textual Cues for Concept/Event Inference
    - Amount: RM10,100
    - Duration: 24-months (30 January 2009 – 29 January 2011)
    - Researcher: **Alfian Abdul Halin (Principal Investigator)**, Mandava Rajeswari and Dhanesh Ramachandram

TALKS/SEMINARS PRESENTED (Non-Conference)

1. "**Career in Industry and/or Academia: A Multimedia Computing perspective**" – Career Talk at Universiti Teknologi MARA, Tapah (Perak), Malaysia, 28th February 2016.
2. "**Making Sense of Digital Media through Text, Audio and Image Analysis**" – Multimedia Departmental Series Seminar, Multimedia Department, Faculty of Computer Science & Information Technology, UPM, 20th May 2014.

TEACHING EXPERIENCE

Postgraduate

1. **Machine Learning**

Undergraduate

1. **Pattern Recognition**
2. **Problem Solving and Programming Concepts (JAVA)**
3. **Object-Oriented Programming (JAVA)**
4. **Data Structures**

ADMINISTRATIVE POSITIONS

- **Multimedia Department Internship Coordinator (Industrial Training & Career Unit, FSKTM, UPM) –** 2022 until present
- **Head, Vision Language & Sound Research Group (FSKTM, UPM) –** 2025-2026

EXTERNAL TRAININGS CONDUCTED

- **1Citizen Training of Trainers**
  - Training for 1Citizen certification for potential trainers. Modules covered relate to computer/internet ethics and safety. Training held at Politeknik Tuanku Sultanah Bahiyah, Kulim, Kedah (2012)

- **1Citizen Training**
  - Training for 1Citizen certification for students. Modules covered relate to computer/internet ethics and safety. Training held in Universiti Putra Malaysia (2011 - 2012)

- **Adobe Flash MX and Flash 8**
  - Beginner to Intermediate Level, National Museum Department Staff Training, Malaysian National Museum, Kuala Lumpur (2007)
  - Beginner to Intermediate Level, Government Staff Training, National Institute of Accountancy, Sabak Bernam, Selangor (2008)

- **Microsoft FrontPage**
  - Fundamental HTML and Webpage/Website Design, Government Staff Training, National Institute of Accountancy, Sabak Bernam, Selangor (2007)

EXTERNAL APPOINTMENTS/CONSULTATION/RESEARCH ATTACHMENTS

1. **Universiti Kebangsaan Malaysia Interactive Multimedia Club**
   - Activity: Digital d'Games Competition
   - Duration: 1-day (December 2015)
   - Role: Jury

2. **Technical Committee for Multimedia Computing Lab PC Tender, Multimedia Department, Faculty of Computer Science & Information Technology (FCSIT), UPM**
   - Activity: PC and iMac requirements verification for the final selection of candidate vendors to supply 62-workstations for the Multimedia department's labs (31-PCs and 31-iMacs)
   - Duration: 2-years (2014-2016)
   - Role: Technical Committee Member and software & hardware requirements specialist.

3. **External Programs of Study Evaluation Panel, UPM**
   - Activity: Evaluate external programs of study done in franchise colleges, under UPM.
   - Duration: 2-years (2014-2016)
   - Role: Technical Committee Member and software & hardware requirements specialist.

4. **Institut Kajian Etnik (KITA), Universiti Kebangsaan Malaysia**
   - Project: Projek Kesepaduan Sosial Negara (Peoject #4: Subproject B)
   - Duration: 36-months (2012 – 2015)
   - Grant: LRGS (Bottom-up)
   - Researchers: YBhg Prof. Ulung Datuk Dr. Shamsul Amri Baharuddin (Project #4 leader), Mohamad Ibrani Shahrimin Adam Assim (Subproject B leader)
   - Role: ICT consultant (for hardware and software) cum software designer and developer

5. **Malaysian Institute of Road Safety Research (MIROS)**
   - Project: Penilaian Keberkesanan Jangka Pendek Modul Pendidikan Keselamatan Jalan Raya (PKJR) di Kalangan Pelajar Sekolah Menengah Tingkatan-1 di Malaysia
   - Duration: 6-months (July 2012 – January 2013)
   - Researchers: Law Tiek Hua (Principal Investigator), Ahmad Hariza Hashim (KAP Principal Investigator), Mohamad Ibrani Shahrimin Adam Assim and **Alfian Abdu Halin**
   - Role: Researcher and ICT consultant (for hardware and software) cum electronic questionnaire designer and developer
6. **Sime Darby Plantations**
   - Duration: ~5-months (2012)
   - Role: Proofreader for product reports.

AWARDS/HONORS

2022 – Anugerah Penerbitan Cemerlang (FSKTM, UPM)

2015 - Anugerah Perkhidmatan Cemerlang 2014, Universiti Putra Malaysia
2003 – 2004 - SLAB (Indigenous Academic Training Scheme) scholarship from Public Service Department of Malaysia for the purpose of Masters-level studies at Monash University (Caulfield), Australia.
1998 – 2000 - Dean's List for 3 semester (for achieving GPAs above 3.50 / 4.00 for each semester awarded) and **First Class Honors Degree** (for achieving a final CGPA of 3.52 / 4.00)
1996 – 1997 - Head of PPP/UiTM award for three semesters (for achieving GPAs above 3.00 / 4.00 for each semester awarded) and **Honor's List for three semesters** (for achieving GPAs above 3.00 / 4.00 for each semester awarded)

POSTGRADUATE SUPERVISION

PhD

1. Jiang Chong – **Microscopic Mineral Imagery Segmentation and Classification** (PhD Supervisory Committee Chairman) – *[Ongoing]*
2. Md. Saifullah Razali – **Multimodal Sentiment Analysis** (PhD Supervisory Committee Chairman) [*Graduated*]
3. Mohsen Zand – **Image Search Engine** (PhD Committee Member) - *[Graduated]*
4. Alihossein Aryanfar - **Invariant Features for Action Recognition** (PhD Committee Member) [*Graduated*]
5. Mohammed W. M. Ashour –**Image Classification using Texture Features** (PhD Committee Member) [*Graduated*]
6. Bashir M – **Image Manipulation in Digital Forensic Evidence** (PhD Committee Members) [*Graduated*]

Masters (CW – coursework and R – research)

1. Marzahar Anuar (R) – **Computer Vision for Vacant Point Detection** [*Graduated*]
2. Zoya Shahcheragi (CW) – **Image and Video Filtering using Anisotropic Filter** [Semester 2 2013/14]
3. Hoda Mohammadali Khani (CW) - **Colour Image Steganography using Pixel Value Differencing** [Semester 1 2013/14]
4. Meysam Rasouli (CW) - **An Eye-Gaze Tracking Technique for Interactive Applications** [Semester 1 2013/14]
5. Nazanin Manafi (CW) - **A Soccer Video Summarization System based on Audio-visual Analysis and Ranking** [Semester 2 2012/13]
6. Rasoul Banaeeyan (CW) - **An Eye-gaze Recognition System based on 2D Geometry** [Semester 2 2012/13]

PROFESSIONAL/COMMITTEE MEMBERSHIPS TPCs etc.

1. Member, IEEE (2010-2025)

Editorial/ Review Board

1. Neural Computing and Applications [Reviewer]
2. International Journal of Information Processing and Management [Reviewer]
3. International Journal of Image Processing and Visual Communication [Editor / Reviewer]
4. Journal of Convergence Information Technology [Editor / Reviewer]
5. Malaysian Journal of Computer Science [Reviewer]
6. Multimedia Tools and Applications [Reviewer]

Conferences/Symposiums TPC

1. 2018/2019/2020 International Conference on Interdisciplinary Computer Science and Engineering – Reviewer and Publications committee member
2. The 2015 IEEE International Conference on Signal and Image Processing Applications [Reviewer and Session Chair]
3. International Conference on I.T. in Asia. 2015 [Reviewer]
4. SCOReD, 2015 [TPC/Reviewer]
5. The International Conference on Soft Computing and Data Science 2015 [Reviewer]
6. The 9th. Malaysian Software Engineering Conference [Reviewer]
7. MobiApps 2015 [Reviewer]
8. The 2015 International Conference on Computer Applications & Technology [Reviewer]
9. The 2014 IEEE Symposium on Computer Applications and Industrial Electronics [Technical Program Committee]
10. The 2013 Student Conference on Research & Development (SCOReD), 16 - 17 December 2013, Palm Garden Hotel, Putrajaya, Malaysia. [Reviewer]
11. The 2nd IEEE International Conference on Image Information Processing (IEEE, ICIIP 2013), 9 - 11 December 2013, Jaypee University of Information Technology, Waknaghat, Shimla, Himachal Pradesh, INDIA. [Reviewer]
12. Information Retrieval and Knowledge Management Seminar (IRKMS 2012), 12 – 13 December 2012, Kuala Lumpur, Malaysia. [Reviewer]
13. 7th. International Conference on Computing and Convergence Technology, 2012. [Reviewer]
14. 4th. International Conference on Intelligent and Advanced Systems (ICIAS 2012) - 12 - 14 June 2012. [Reviewer]
15. International Conference of Information Retrieval and Knowledge Management (CAMP'12), Mines Wellness Hotel, Seri Kembangan, Selangor, Malaysia, 13 -15 March 2012. [Reviewer / Logistics Committee]

REFERENCES

1. **Dato' Professor Dr. Shamala K. Subramaniam**
    - Dean, Faculty of Computer Science & Information Technology, UPM, Serdang

- Phone : +60389466555
- Email : **shamala_ks@upm.edu.my**

2. **Assoc. Professor Dr. Puteri Suhaiza Sulaiman**
    - Head, Multimedia Department, Faculty of Computer Science & Information Technology, UPM, Serdang
    - Phone : +60389471717
    - Email : **psuhaiza@upm.edu.my**