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## PROFILE

Dr Muhammad Hisyam LEE was born in Malaysia (1966), holds the degree in B.Sc. (1991), M.Sc. (1994) in Statistics of Universiti Kebangsaan Malaysia and PhD (2003) in Mathematics of Universiti Teknologi Malaysia. He has been the faculty since 1991 and currently serving as Professor of the Department of Mathematical Sciences, Universiti Teknologi Malaysia (UTM). Currently, he is a member of University Senate, UTM and also serving in Standing Committees on Academic Policy and Entity, Academic Curriculum & Quality Assurance, and Library & Educational Resources. Previously, served in Standing Committees on Academic Affairs, Research & Innovation, Library & Educational Resources, and Industry & Community Linkages of UTM. Also, served as Manager (Information Technology), Office of the Deputy Vice-Chancellor (Academic and International), UTM during Apr. 2014 – Feb. 2018 and as Manager (Information Technology), Research Management Centre, UTM during Nov. 2008 – Nov 2012. Currently, working as Deputy Director (Analytics and Institutional Research), Office of Strategy Management, Office of the Vice-Chancellor, UTM. He has more than 25 years of teaching and research experience. His interest includes academic matters, academic programme assessment and review, research assessment exercise, statistical science, and information technology. He has contributed more than 100 research papers which are published in reputed journals or conferences.

## EXPERIENCE

- University Senate, Universiti Teknologi Malaysia (UTM). 20 Jan. 2017 – 19 Jan. 2020.
- University Senate, Universiti Teknologi Malaysia (UTM). 23 Jan. 2014 – 22 Jan. 2017.
- Auditor of Malaysian Qualifications Agency (MQA). Aug. 2015 – Aug. 2018.
- Auditor of Malaysian Qualifications Agency (MQA). Sept. 2012 – Sept. 2015.
- Auditor of Malaysia Research Assessment (MyRA), Ministry of Higher Education (MOHE). 2017 – 2018.
- Auditor of Malaysia Research Assessment (MyRA), Ministry of Higher Education (MOHE). 2015 – 2016.
- Auditor of Ratings for Universities and University Colleges (SETARA), Ministry of Higher Education (MOHE). 2017.

- Deputy Director, Analytics and Institutional Research, Office of Strategy Management, Office of the Vice-Chancellor, Universiti Teknologi Malaysia. 1 Mar. 2018 – present.
- Manager (Information Technology), Office of the Deputy Vice-Chancellor (Academic and International), Universiti Teknologi Malaysia. 1 Apr. 2016 – 28 Feb. 2018.
- Manager (Information Technology), Office of the Deputy Vice-Chancellor (Academic and International), Universiti Teknologi Malaysia. 1 Apr. 2014 – 31 Mar. 2016.
- Manager (Information Technology), Research Management Centre, Universiti Teknologi Malaysia. 15 Nov. 2010 – 14 Nov. 2012.
- Manager (Information Technology), Research Management Centre, Universiti Teknologi Malaysia. 15 Nov. 2008 – 14 Nov. 2010.
- Professor of Statistics, Universiti Teknologi Malaysia. 3 Jan. 2013 – Present.
- Associate Professor of Statistics, Department of Mathematical Sciences, Faculty of Science, Universiti Teknologi Malaysia. 30 Aug. 2007 – 2 Jan. 2013.
- Senior Lecturer, Department of Mathematics, Faculty of Science, Universiti Teknologi Malaysia. 1 Jan. 2005 – 29 Aug. 2007.
- Lecturer, Department of Mathematics, Faculty of Science, Universiti Teknologi Malaysia. 1993 – 2004.
- Assistant Lecturer 'A', Department of Mathematics, Faculty of Science, Universiti Teknologi Malaysia. 1991 – 1993.

## EDUCATION

- Bachelor of Science (Honours) in Statistics, Universiti Kebangsaan Malaysia, Malaysia. 1987 – 1991.
- Master of Science (Statistics), Universiti Kebangsaan Malaysia, Malaysia. 1992 – 1994.
- Doctor of Philosophy (Mathematics), Universiti Teknologi Malaysia, Malaysia. 2000 – 2003.

## MEMBERSHIP

- Institute Statistics of Malaysia (ISM). Vice President: 2012 – 2014. Council member: 2008 – 2010, 2010 – 2012. Life membership.
- Malaysian Mathematical Sciences Society (PERSAMA), #LM99. 1999 – Present. Life membership.
- Islamic Countries Society of Statistical Sciences (ISOSS). #L-121. 2010 – Present. Life membership.
- Islamic Academic of Science Malaysia (ASASI). 2000 – Present. Life membership.
- UTM Centre for Industrial and Applied Mathematics. 23 Oct. 2013 – 31 Mac 2015. Ref.: UTM.J.09.14.02/25.11/1(3). Appointment as an Associate Fellow.

- SPSS Users' Association of Kuala Lumpur & Selangor. 2010. Associate membership.
- Institute of Business Forecasting & Planning (iBF). 2010 - 2012. Member.
- IEEE. #90849769, 2010. 2010. Member.
- Association for Computing Machinery (ACM). 2010. Member.
- IEEE Computer Society. 2008. Member.
- American Mathematical Society (AMS). 2008. Member.

## RESEARCH

1. Penalized Principal Component Analysis with Application in High Dimensional Data. GUP Tier-1 2016-2. Q.J130000.2508.15H64. 01/10/2016 - 30/09/2018. RM40,000. Project Leader.
2. Statistical Modelling for High-dimensional Generalized Linear Models in Computational Biology. FRGS 2016-1. Grant No: R.J130000.7808.4F822. 01/08/2016 - 31/07/2018. RM56,850. Project Leader.
3. Governance for Disaster Risk Reduction: Performance Evaluation of River Basin Organizations in Controlling the Occurrence of Flood - A Case Study of Sungai Kelantan Basin. FRGS 2015. Grant No: R.J130000.7809.4F704. 01/04/2015 - 31/12/2015. RM63,000. Researcher.
4. Unveiling the Data Processing methodology of World Competitiveness Index used by World Competitiveness Yearbook. Grant No.: R.J130000.7713.4J058. 01/07/2012 - 30/09/2012. RM25,000. Project Leader.
5. New Hybrid Model for Forecasting Short Term Electricity Load Demand. Research University Grants. Grant No.: Q.J130000.2513.01H11. 01/04/2011 - 31/03/2013. RM130,000. Project Leader.
6. Pembangunan Modul Pengurusan Proposal dan Modul Pengurusan Rekod Penyelidikan Secara Online bagi Pengurusan Penyelidikan di UTM. Grant No.: 77030. 01/06/2010 - 31/07/2011. RM50,000. Project Leader.
7. Pembangunan Modul Aktiviti Penyelidikan dan Modul Perlantikan Penyelidikan Secara Online bagi Pengurusan Penyelidikan di UTM. Grant No.: 77031. 01/06/2010 - 31/07/2011. RM30,000. Researcher.
8. Pembangunan Modul Pemantauan Penyelidikan Secara Online bagi Pengurusan Penyelidikan di UTM. Grant No.: 77029. 01/06/2010 - 31/12/2011. RM30,000. Researcher.
9. An Improved Method for Prediction Based On Fuzzy Time Series. FRGS. Grant No.: 78480. 15/11/2009 - 14/11/2011. RM28,000. Project Leader.
10. Development of an Intervention Model for Business Impact Analysis in the Implementation of the Business Continuity Management Process. Project Number: USIM/FRGS-FST-06-50508. 3 Oct. 2008 - 4 Apr. 2010. Researcher.

11. Molecular Modelling and Simulation of Nano Structures. FRGS. Grant No.: 78341. 01/11/2008 – 30/04/2011. RM95,500. Researcher.
12. Development of Software Tools for Performance Evaluation of Mobile Ad Hoc Networks using Taguchi Method. MOSTI: Science Fund. Grant No.: 79220. 01/09/2007 – 28/02/2009. RM140,600. Project Leader.
13. Prediction of Optimum Performance in Self-Organizing Networks with Dynamic Source Routing Protocol. Grant No.: 75185. 01/11/2004 – 31/10/2005. RM15,000. Project Leader.
14. An Investigation into the Implementation of a Quality Management System in a Mega Construction Project. IRPA. Grant No.: 72191. 01/07/1999 – 30/06/2003. RM118,750 Researcher.
15. Qualitative Model with Binary Dependent Variables Approach for Modelling of Students Performance of Academic Achievement. Grant No.: 71390. 1/1/1999 – 31/12/2000. RM15,000. Project Leader.
16. R&D Requirement of the Malaysia Construction Industry. Grant No.: 71231. 01/01/1998 – 31/12/1999. RM18,225. Researcher.
17. Study on High Radiation Area, Palong, Segamat. Grant No.: 71159. 01/06/1997 – 30/06/1998. RM20,000. Researcher.
18. A Guide to Statistical Resource on the Internet for Malaysia Higher Institutes of Learning. Grant No.: 71091. 01/10/1996 – 30/09/1997. RM13,300. Project Leader.
19. TQM Application in Construction Project Management. Grant No.: 61811. 02/01/1995 – 29/01/1997. RM17,150. Researcher.

## PUBLICATIONS

### Referred Journals / Article

5-Year Total Articles (Year 2013 - 2017) = **57 articles**

5-Year Total Q1/Q2 Journal (Year 2013 - 2017) = **9 + 9 + 6 + 4 + 2 = 30 articles (52.6%)**

5-Year Journal Impact Factor (Year 2013 - 2017) = **70.085**

Year 2018 (March): **2 articles** (Q2+Q3 = 1+1) and CIF = 2.247

1. Abdo M. Al-Fakih, Zakariya Yahya Algamal, Muhammad Hisyam Lee, Madzlan Aziz. (2018). A penalized quantitative structure-property relationship study on melting point of energetic carbocyclic nitroaromatic compounds using adaptive bridge penalty. *SAR and QSAR in Environmental Research*. DOI: 10.1080/1062936X.2017.1375010. ISSN: 1062-936X. 2015 JCR Impact Factor: 1.897. Journal Ranking in JCR: **Q2**. Accepted.
2. Nur Arina Bazilah, Muhammad Hisyam Lee, Suhartono, Abdul Ghapor Hussin, Yong Zulina Zubairi. (2018). Load Forecasting using Combination Model of Multiple Linear

Regression with Neural Network for Malaysia City. *Sains Malaysiana*. ISSN: 0126-6039. 2014 JCR Impact Factor: 0.350. Journal Ranking in JCR: **Q3**. Accepted.

Year 2017: **11 articles** ( $Q1+Q2+Q3+Scopus = 5+4+1+1$ ) and CIF = 24.758

3. Wan Muhammad Saridan Wan Hassan, Mohamad Syazwan Mohd Sanusi, Ahmad Termizi Ramli, Muhammad Hisyam Lee, Azril Izham, Mohd Nor Said, Husin Wagiran, Arien Heryanshah. (2017). Assessment of impact of urbannisation on background radiation exposure and human health risk estimation in Kuala Lumpur, Malaysia. *Environmental International*, 104: 91/101. DOI: 10.1016/j.envint.2017.01.009. ISSN: 0160-4120. 2016 JCR Impact Factor: 7.088. Journal Ranking in JCR: **Q1** (7 of 229; Top 3%).
4. Hossein Javedani Sadaei, Frederico Gadelha Guimarães, Cidiney José da Silva, Muhammad Hisyam Lee, Tayyebbeh Eslami. (2017). Short-term load forecasting method based on fuzzy time series, seasonality and long memory process. *International Journal of Approximate Reasoning*, 83: 196-217. DOI: 10.1016/j.ijar.2017.01.006. ISSN: 0888-613X. 2015 JCR Impact Factor: 2.696. **Q1**.
5. Sanusi, M.S.M., Ramli, A.T., Basri, N.A., Heryanshah, A., Said, M.N., Lee, M.H., Wagiran, H., Saleh, M.A. (2017). Thorium distribution in the soils of Peninsular Malaysia and its implications for Th resource estimation. *Ore Geology Reviews*, 80: 522-535. DOI: 10.1016/j.oregeorev.2016.07.021. 2015 JCR Impact Factor: 3.819. Journal Ranking in JCR: **Q1**.
6. Zakariya Yahya Algamal, Muhammad Hisyam Lee, Abdo M. Al-Fakih, Madzlan Aziz. (2017). High-dimensional QSAR Classification Model for Antihepatitis C Virus Activity of Thiourea Derivatives based on the Sparse Logistic Regression Model with a Bridge Penalty. *Journal of Chemometrics*, 30(2): 50-57. DOI: 10.1002/cem.2889. ISSN: 0886-9383. 2016 JCR Impact Factor: 1.884. Journal Ranking in JCR: **Q1**.
7. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2017). A novel molecular descriptor selection method in QSAR classification model based on weighted penalized logistic regression. *Journal of Chemometrics*, 31(10): e2915. DOI: 10.1002/cem.2915. ISSN: 0886-9383. 2016 JCR Impact Factor: 1.884. Journal Ranking in JCR: **Q1**.
8. Zakariya Algamal & Muhammad Hisyam Lee. (2017). A new adaptive L1-norm for optimal descriptor selection of High-dimensional QSAR Classification Model for Anti-hepatitis C Virus Activity of Thiourea Derivatives. *SAR and QSAR in Environmental Research*, 28(1): 75 - 90. DOI: 10.1080/1062936X.2017.1278618. ISSN: 1062-936X. 2015 JCR Impact Factor: 1.897. Journal Ranking in JCR: **Q2**.
9. Babar Zaman, Muhammad Riaz, Muhammad Hisyam Lee. (2017). On the Performance of Control Charts for Simultaneous Monitoring of Location and Dispersion Parameters. *Quality and Reliability Engineering International*, 33(1): 37-56. DOI: 10.1002/qre.1989. ISSN: 0748-8017. 2015 JCR Impact Factor: 1.457. Journal Ranking in JCR: **Q2**.

10. Babar Zaman, Muhammad Hisyam Lee, Muhammad Riaz, Mu'azu Ramat Abujija (2017). An adaptive EWMA scheme-based CUSUM accumulation error for efficient monitoring of process location. *Quality and Reliability Engineering International*, 33(8): 2463-2482. DOI: 10.1002/qre.2203. ISSN: 0748-8017. 2015 JCR Impact Factor: 1.457. Journal Ranking in JCR: **Q2**.
11. Abdo M. Al-Fakih, Zakariya Yahya Algamal, Muhammad Hisyam Lee, Madzlan Aziz. (2017). A sparse QSRR model for predicting retention indices of essential oils based on robust screening approach. *SAR and QSAR in Environmental Research*, 28(8): 691-703. DOI: 10.1080/1062936X.2017.1375010. ISSN: 1062-936X. 2015 JCR Impact Factor: 1.897. Journal Ranking in JCR: **Q2**.
12. Mu'azu Ramat Abujija, Muhammad Hisyam Lee, Muhammad Riaz. (2017). New EWMA S-2 control charts for monitoring of process dispersion. *Scientia Iranica*, 24(1): 378-389. ISSN: 1026-3098. 2015 JCR Impact Factor: 0.679. Journal Ranking in JCR: **Q3**.
13. Nur Arina Bazilah, Muhammad Hisyam Lee, Suhartono, Abdul Ghapor Hussin, Yong Zulina Zubairi. (2017). Functional Residual Plot for Model Validation. *Jurnal Teknologi (Sciences and Engineering)*, 79(1):91-95. ISSN: 0127-9696. Scopus.

Year 2016: **11 articles** ( $Q1+Q2+Q3+Scopus= 3+6+1+1$ ) and  $CIF = 16.843$ .

14. Zakariya Yahya Algamal, Muhammad Hisyam Lee, Abdo M. Al-Fakih. (2016). High-dimensional quantitative structure-activity relationship modeling of influenza neuraminidase a/PR/8/34 (H1N1) inhibitors based on a two-stage adaptive penalized rank regression. *Journal of Chemometrics*, 30(2): 50-57. DOI: 10.1002/cem.2766. ISSN: 0886-9383. 2015 JCR Impact Factor: 1.873. Journal Ranking in JCR: **Q1**.
15. Hossein Javedani Sadaei, Rasul Enayatifar, Muhammad Hisyam Lee, Maqsood Mahmud. (2016). A hybrid model based on differential fuzzy logic relationships and imperialist competitive algorithm for stock market forecasting. *Applied Soft Computing*, 40: 132-149. DOI: 10.1016/j.asoc.2015.11.026. 2015 JCR Impact Factor: 2.857. Journal Ranking in JCR: **Q1**.
16. Abdo M. Al-Fakih, Zakariya Y. Algamal, Muhammad H. Lee, Hassan H. Abdallah, Hasmerya Maarof, Madzlan Aziz. (2016). Quantitative structure-activity relationship model for prediction study of corrosion inhibition efficiency using two-stage sparse multiple linear regression. *Journal of Chemometrics*, 30(7): 361-368. DOI: 10.1002/cem.2800. ISSN: 0886-9383. 2015 JCR Impact Factor: 1.873. Journal Ranking in JCR: **Q1**.
17. Mu'azu Ramat Abujija, Muhammad Hisyam Lee, Muhammad Riaz. (2016). Combined application of Shewhart and cumulative sum R chart for monitoring process dispersion. *Quality and Reliability Engineering International*, 32(1): 51-67. DOI: 10.1002/qre.1725. ISSN: 0748-8017. 2015 JCR Impact Factor: 1.457. Journal Ranking in JCR: **Q2**.
18. Mohammad Syazwan Mohd Sanusi, Ahmad Termizi Ramli, Husin Wagiran, Muhammad Hisyam Lee, Arien Heryanshah, Mohd Nor Said. (2016). Investigation of

geological and soil influence on natural gamma radiation exposure and assessment of radiation hazards in Western Region, Peninsular Malaysia. *Environmental Earth Sciences*, 75(6), Article Number: 485. DOI 10.1007/s12665-016-5290-5. ISSN: 1866-6280. 2014 JCR Impact Factor: 1.765. Journal Ranking in JCR: **Q2**.

19. Zakariya Yahya Algamal, Muhammad Hisyam Lee, Abdo M. Al-Fakih, Madzlan Aziz. (2016). High-dimensional QSAR modelling using penalized linear regression model with L-1/2-norm. *SAR and QSAR in Environmental Research*, 27(9): 703-719. DOI: 10.1080/1062936X.2016.1228696. ISSN: 1062-936X. 2015 JCR Impact Factor: 1.897. Journal Ranking in JCR: **Q2**.
20. Mu'azu Ramat Abujiya, Muhammad Riaz, Muhammad, Hisyam Lee. (2016). A New Combined Shewhart-Cumulative Sum S Chart for Monitoring Process Standard Deviation. *Quality and Reliability Engineering International*, 32(3): 1149-1165. DOI: 10.1002/qre.1822. ISSN: 0748-8017. 2015 JCR Impact Factor: 1.457. Journal Ranking in JCR: **Q2**.
21. Ahmad Termizi Ramli, Mohammad Syazwan Mohd Sanusi, Muhammad Hisyam Lee, Sallehuddin Sahrone, Nor Zati Hani Abu Hanifah. (2016). Spatial distribution of natural gamma radiation exposure and its relationship to soil types. *Natural Hazards*, 84(3): 1859-1872. DOI: 10.1007/s11069-016-2524-5. ISSN: 0921-030X. 2015 JCR Impact Factor: 1.746. Journal Ranking in JCR: **Q2**.
22. Babar Zaman, Nasir Abbas, Muhammad Riaz, Muhammad Hisyam Lee. (2016). Mixed CUSUM-EWMA chart for monitoring process dispersion. *International Journal of Advanced Manufacturing Technology*, 86(9-12): 3025-3039. DOI: 10.1007/s00170-016-8411-0. ISSN: 0268-3768. 2015 JCR Impact Factor: 1.568. Journal Ranking in JCR: **Q2**.
23. Nur Haizum Abd Rahman, Muhammad Hisyam Lee, Suhartono, Mohd Talib Latif. (2016). Evaluation Performance of Time Series Approach for Forecasting Air Pollution Index in Johor, Malaysia. *Sains Malaysiana*, 45(11): 1625-1633. ISSN: 0126-6039. 2014 JCR Impact Factor: 0.350. Journal Ranking in JCR: **Q3**.
24. Maria Elena Nor, Azme Khamis, Sabariah Saharan, Mohd Asrul Affendi Abdullah, Rohayu Mohd Salleh, Norhaidah Mohd Asrah, Kamil Khalid, Fazlina Aman, Mohd Saifullah Rusiman, Harliana Halim, Muhammad Hisyam Lee, Eliza Nor. 2016. Malaysia tourism demand forecasting by using time series approaches. *Social Science (Pakistan)*, 11(12): 2938-2945. DOI: 10.3923/sscience.2016.2938.2945. ISSN: 1818-5800. Scopus.

Year 2015: **14 articles** ( $Q1+Q2+Q3+Scopus/ERA = 3+3+2+6$ ) and  $CIF = 14.986$ .

25. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). Penalized logistic regression with the adaptive LASSO for gene selection in high-dimensional cancer classification. *Expert Systems With Applications*, 42(23): 9326-9332. DOI: 10.1016/j.eswa.2015.08.016. ISSN: 0957-4174. 2014 JCR Impact Factor: 2.240. Journal Ranking in JCR: **Q1**.

26. Zakariya Yahya Algamal, Muhammad Hisyam Lee, Abdo M. Al-Fakih, Madzlan Aziz. (2015). High Dimensional QSAR Prediction of Anticancer Potency of Imidazo[4,5-B]pyridine Derivatives Using Adjusted Adaptive LASSO. *Journal of Chemometrics*, 29(10): 547-556. DOI: 10.1002/cem.2741. ISSN: 0886-9383. 2014 JCR Impact Factor: 1.500. Journal Ranking in JCR: **Q1**.
27. Mu'azu Ramat Abujiya, Muhammad Hisyam Lee, Muhammad Riaz. (2015). Enhanced cumulative sum charts for monitoring process dispersion. *PLOS ONE*, 10(4), Article Number: e0124520. DOI: 10.1371/journal.pone.0124520. ISSN: 1932-6203. 2014 JCR Impact Factor: 3.234. Journal Ranking in JCR: **Q1**.
28. Nur Haizum Abd Rahman, Muhammad Hisyam Lee, Suhartono, Mohd Talib Latif. (2015). Artificial Neural Networks and Fuzzy Time Series Forecasting: An Application to Air Quality. *Quality & Quantity*, 49(6): 2633-2647. DOI: http://10.1007/s11135-014-0132-6. ISSN: 0033-5177. 2014 JCR Impact Factor: 0.720. Journal Ranking in JCR: **Q2**.
29. Mu'azu Ramat Abujiya, Muhammad Hisyam Lee, Muhammad Riaz. (2015). Increasing the Sensitivity of Cumulative Sum Charts for Location. *Quality and Reliability Engineering International*, 31(6): 1035-1051. DOI: 10.1002/qre.1661. ISSN: 0748-8017. 2014 JCR Impact Factor: 1.191. Journal Ranking in JCR: **Q2**.
30. Osamah Basheer Shukur and Muhammad Hisyam Lee. (2015). Daily wind speed forecasting through hybrid KF-ANN model based on ARIMA. *Renewable Energy*, 76: 637-647. DOI: http://dx.doi.org/10.1016/j.renene.2014.11.084. ISSN: 0960-1481. 2013 JCR Impact Factor: 3.361. Journal Ranking in JCR: **Q2**.
31. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). Regularized logistic regression with an adjusted adaptive elastic net for gene selection in high dimensional cancer classification. *Computers in Biology and Medicine*, 67: 136-145. DOI: 10.1016/j.combiomed.2015.10.008. ISSN: 0010-4825. 2014 JCR Impact Factor: 1.240. Journal Ranking in JCR: **Q3**.
32. Abdo M. Al-Fakih, Madzlan Aziz, Hassan H. Abdallah, Zakariya Y. Algamal, Muhammad H. Lee, Hasmerya Maarof. (2015). High Dimensional QSAR Study of Mild Steel Corrosion Inhibition in acidic medium by Furan Derivatives. *International Journal of Electrochemical Science*, 10: 3568-3583. ISSN: 1452-3981. ISI. 2014 JCR Impact Factor: 1.500. Journal Ranking in JCR: **Q3**.
33. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). High dimensional logistic regression model using adjusted elastic net penalty. *Pakistan Journal of Statistics and Operation Research*, 11(4): 667-676. DOI: 10.18187/pjsor.v11i4.990. ISSN: 1816-2711. Scopus.
34. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). Applying Penalized Binary Logistic Regression with Correlation Based Elastic Net for Variables Selection. *Journal of Modern Applied Statistical Methods*, 14(1): 168-179. ISSN: 1538-9472. Scopus.
35. Osamah Basheer Shukur and Muhammad Hisyam Lee. (2015). Daily wind speed forecasting through hybrid AR-ANN and AR-KF models. *Jurnal Teknologi*, 72(5): 89-95. DOI: 10.11113/jt.v72.3946. ISSN: 0127-9696. Scopus.



36. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). Penalized Poisson regression model using adaptive modified elastic net penalty. *Electronic Journal of Applied Statistical Analysis*, 8(2): 236-245. DOI: 10.1285/i20705948v8n2p236. ISSN: 2070-5948. Scopus.
37. Zakariya Yahya Algamal, Muhammad Hisyam Lee. (2015). Adjusted Adaptive LASSO in High-dimensional Poisson Regression Model. *Modern Applied Science*, 9(4): 170-177. DOI: <http://dx.doi.org/10.5539/mas.v9n4p170>. ISSN: 1913-1844. ERA.
38. Osamah Basheer Shukur, Muhammad Hisyam Lee. (2015). Imputation of missing values in daily wind speed data using hybrid AR-ANN method. *Modern Applied Science*, 9(11): 1-11. DOI: 10.5539/mas.v9n11p1. ISSN: 1913-1844. ERA.
39. M. Baharuddin, S.-H. Salleh, M. Lee, A. Mohd Noor. (2015). Development of Asian hip stem 2 - Computational analysis using 3D finite element method. *Osteoarthritis and Cartilage*, 23(2): A124-A126. DOI: 10.1016/j.joca.2015.02.851. ISSN: 1063-4584. 2013 Impact Factor: 4.663. Journal Ranking in JCR: Q1.
40. M. Baharuddin, S.-H. Salleh, M. Lee, A. Mohd Noor. (2015). Development of Asian hip stem 1 - Three dimensional morphology study. *Osteoarthritis and Cartilage*, 23(2): A231-A232. DOI: 10.1016/j.joca.2015.02.436. ISSN: 1063-4584. 2013 Impact Factor: 4.663. Journal Ranking in JCR: Q1.
41. M. Baharuddin, S.-H. Salleh, M. Lee, A. Mohd Noor. (2015). Development of Asian hip stem 4 - Experimental validation for stress distribution and micromotion. *Osteoarthritis and Cartilage*, 23(2): A118-A119. DOI: 10.1016/j.joca.2015.02.840. ISSN: 1063-4584. 2013 Impact Factor: 4.663. Journal Ranking in JCR: Q1.
42. M. Baharuddin, S.-H. Salleh, M. Lee, A. Mohd Noor. (2015). Development of Asian hip stem 3 - Fabrication using investment casting technique. *Osteoarthritis and Cartilage*, 23(2): A126-A127. DOI: 10.1016/j.joca.2015.02.852. ISSN: 1063-4584. 2013 Impact Factor: 4.663. Journal Ranking in JCR: Q1.
43. M. Baharuddin, S.-H. Salleh, M. Lee, A. Mohd Noor. (2015). Development of Asian hip stem 5 - Primary stability classification using time domain features and support vector machine. *Osteoarthritis and Cartilage*, 23(2): A127-A128. DOI: 10.1016/j.joca.2015.02.853. ISSN: 1063-4584. 2013 Impact Factor: 4.663. Journal Ranking in JCR: Q1.

Year 2014: **9 articles** (Q2+Q3+Scopus+Misc = 4+2+2+1) and CIF = 9.139.

44. Hossein Javedani Sadaei and Muhammad Hisyam Lee. (2014). Multilayer Stock Forecasting Model Using Fuzzy Time Series. *Scientific World Journal*. Volume 2014, Article ID: 610594, 10 pages. DOI: <http://dx.doi.org/10.1155/2014/610594>. ISSN: 1537-744X. 2013 JCR Impact Factor: 1.219. Journal Ranking in JCR: **Q2**.
45. Mohd Yusof Baharuddin, Sh-Hussain Salleh, Andril Arafat Suhasri, Ahmad Hafiz Zulkifly, Muhammad Hisyam Lee, Mohd Afian Omar, Ab Saman Abd Kader, Alias Mohd Noor, Arief Ruhullah A. Harris, Norazman Abdul Majid. (2014). Fabrication of Low Cost Cementless Femoral Stem 316L Stainless Steel Using Investment Casting

- Technique. *Artificial Organs*, 38(7): 603-608. DOI: <http://10.1111/aor.12222>. ISSN: 1525-1594(0160-564X). 2013 JCR Impact Factor: 1.870. Journal Ranking in JCR: **Q2**.
46. Mu'azu Ramat Abujiya, Muhammad Hisyam Lee, and Muhammad Riaz. (2014). Improving the performance of exponentially weighted moving average control charts. *Quality and Reliability Engineering International*, 30(4): 571-590. DOI: 10.1002/qre.1509. ISSN: 0748-8017. 2013 JCR Impact Factor: 0.994. Journal Ranking in JCR: **Q2**.
  47. Mohd Yusof Baharuddin, Sh-Hussain Salleh, Ahmad Hafiz Zulkifly, Muhammad Hisyam Lee, Alias Mohd Noor, Arief Ruhullah A Harris, Norazman Abdul Majid, Ab Saman Abd Kader. (2014). Design process of cementless femoral stem using a nonlinear three dimensional finite element analysis. *BMC Musculoskeletal Disorders*, 15:30. DOI: <http://dx.doi.org/10.1186/1471-2474-15-30>. ISSN: 1471-2474. 2013 Impact Factor: 1.898. Journal Ranking in JCR: **Q2**.
  48. Mohd Yusof Baharuddin, Sh-Hussain Salleh, Ahmad Hafiz Zulkifly, Muhammad Hisyam Lee, Alias Mohd Noor. (2014). Morphological study of the newly cementless femoral stem. *BioMed Research International*. Volume 2014, Article ID: 692328, 11 pages. DOI: <http://dx.doi.org/10.1155/2014/692328>. ISSN: 2314-6133. 2014 Impact Factor: 1.579. Journal Ranking in JCR: **Q3**.
  49. Mohd Yusof Baharuddin, Sh-Hussain Salleh, Mahyar Hamedi, Ahmad Hafiz Zulkifly, Muhammad Hisyam Lee, Alias Mohd Noor, Arief Ruhullah A. Harris, Norazman Abdul Majid. (2014). Primary stability recognition of the newly designed cementless femoral stem using digital signal processing. *BioMed Research International*, Volume 2014, Article ID 478248, 9 pages. DOI: <http://dx.doi.org/10.1155/2014/478248>. ISSN: 2314-6133. 2014 Impact Factor: 1.579. Journal Ranking in JCR: **Q3**.
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  28. Mazalan Sarahintu, Muhammad Hisyam Lee, Hazura Mohamed. An Investigation of Interaction Effects for Network Parameters in Ad Hoc Networks Using Taguchi Method. Seminar Kebangsaan Sains Kuantitatif 2006. Universiti Utara Malaysia, Langkawi. 19 - 21 Dec. 2006.
  29. Mazalan Sarahintu & Muhammad Hisyam Lee. Performance Evaluation on Mobile Ad Hoc Networks with Dynamic Source Routing Protocol. Simposium Kebangsaan Sains Matematik ke XIV. UM & PERSAMA. 6 - 8 June 2006.
  30. Muhammad Hisyam Lee. Formulation of Properties for Motion Prediction in Wireless and Simulation Analysis of Dynamic Destination-Sequenced Distance-Vector Protocol. Seminar of Department of Mathematics, Faculty of Science, UTM. 24 Dec. 2003.
  31. Muhammad Hisyam Lee, Shaharuddin Salleh, Bahrom Sanugi. Penghitungan Kebarangkalian Ketersediaan Laluan dalam Rangkaian Bergerak Tergesa. Simposium Kebangsaan Sains Matematik Ke-9 (SKSM-9). UKM & PERSAMA. 18 - 20 July 2001.
  32. Shaharuddin Salleh, Bahrom Sanugi, Muhammad Hisyam Lee. Partitioning and Reconfiguration Strategies for Highly Dynamic Ad Hoc Networks. Malaysian Science and Technology Congress 2000. Genting Highlands. 7 - 9 Nov. 2000.
  33. Muhammad Hisyam Lee, Stephan Olario, Shaharuddin Salleh, Bahrom Sanugi. (2000) 'Dynamic Source Routing (DSR) Protocol with Euclidean Effect in Mobile Ad Hoc Networks', National Conf. on Telecommunication Technology. E-45-49.
  34. Ahmad Termizi Ramli, M. H. Lee and Abdel Wahab M. A. Hussein, "Effect of Soil Type on Environmental Terrestrial Gamma Radiation Dose in Johor State, Malaysia." an invited paper. Presented at International Meeting on Frontiers of Physics 98, Institute of Physics Malaysia and Asia Pacific Center for Theoretical Physics. 25-29 Oct. 1998. Published in Proceeding of the International Meeting on Frontiers of Physics 1998,

Ed. S.P. Chia and D.A. Bradley, pp 498-512, 2000. World Scientific Publication Co. Pte. Ltd., Singapore. ISBN 981-02-4490-8.

35. Muhammad Hisyam Lee. S-System Analysis of the Central and Non-central Chi Square Distributions. The VI National Symposium of Mathematical Science, Universiti Malaya. 3 - 5 May 1994.
36. Muhammad Hisyam Lee. Introduction to S-System Modeling Methods. Mathematics Colloquium, Faculty of Science, UTM. 22 March 1994.
37. Muhammad Hisyam Lee & Mohamad Amir Manap. Guideline, Selection and Fitting in Multiple Regressions. Course and Workshop on Statistics, Faculty of Science, UTM. 14 - 16 June 1992.
38. Muhammad Hisyam Lee. Pengurangan Kepincangan Penganggar Menerusi Tatacara Jackknife. Kolokium Matematik, Fakulti Sains, UTM. 15 Mac 1992.

## TEACHING

- 2011/2012-2 : Engineering Statistics (SSE2193)
- 2011/2012-1 : Engineering Statistics (SSE2193)
- 2010/2011-2 : Multivariate Analysis (SSH3123)
- 2010/2011-1 : Engineering Statistics (SSE2193)
- 2009/2010-2 : Multivariate Analysis (SSH3123)
- 2009/2010-1 : Statistics I (SSH1113)
- 2008/2009-2 : Multivariate Analysis (SSH3123)
- 2008/2009-1 : Statistics I (SSH1113), Engineering Statistics (SSE2193, 2 sections), Experimental Designs (SSH2123/SSM3733)
- 2007/2008-2 : Engineering Statistics (SSE2193)
- 2007/2008-1 : Engineering Statistics (SSE2193, 3 sections)
- 2006/2007-1 : Engineering Statistics (SSE2193, S16, S31, S34)
- 2005/2006-2 : Multivariate Statistics (SSM4743), Engineering Statistics (SSM3763)
- 2005/2006-1 : Multivariate Statistical Analysis (MSM5473), Engineering Statistics (SSE2193)
- 2004/2005-2 : SSM3763, SSM2703
- 2004/2005-1 : Multivariate Statistical Analysis (MSM5473)
- 2003/2004-2 : SSM3763, SSM2703
- 2002/2003-2 : SSM4713, SSM2703
- 1998/1999-2 : SSM4742, SSM2762, SSM5782, SSM2723
- 1997/1998-2 : SSM4713, SSM2762, SSU1101, SSM2762

- 1996/1997-2 : SSM1063, SSM2993, SSM2113
- 1995/1996-2 : SSM3792, SSM1912, SSM2713, SSM2993
- 1994/1995-2 : SMT4042, SSM3713, SUB3731, SSM2993, SSM2713
- 1993/1994-2 : SSM2213. MAT000
- 1991/1992-2 : SUB3731, SMT 2543, MAT1222, SMT0153, MAT0001, SMT0163

## SUPERVISION

### Post-Doctoral

1. Dr Zakariya Yahya Algamal (1 July 2016 - 30 June 2017)
2. Dr Suhartono (2010)

### Doctor of Philosophy (Ph.D)

1. Eltahir Ibrahim Elnour Salim (2017 – Present). Main supervisor. Sudan and working in King Faisal University, Hofuf, KSA. *Statistical Modeling of the Incidence of Breast Cancer in Darfur States, Sudan*. Main supervisor.
2. Ishaq Adeyanju Raji (2017 – Present). Main supervisor. Nigeria and working in KFUPM Dahrn. *On Developing Efficient and Robust Designs of Univariate and Multivariate Control Charts*. Main supervisor.
3. Yusrina Andu (2016 – Present). *Modeling of Air Pollution based in Advabced Statistical Methods and Artificial Neural Network*. Main supervisor.
4. Babar Zaman (2016 – Present). *On Efficient Approaches for Control Charts for Process Monitoring*. Main supervisor.
5. Nor Adhiah binti Rashid. (2017 – Present). *Predicting Refined Bleached Deodorized Palm Oil Quality in The Palm Oil Refineries Using Multivariate Statistical Process Control*. Co-supervisor.
6. Mohamad Syazwan Mohd Sanusi. (2016 – Present). *Kajian Radiologi Alam Sekitar Semenanjung Malaysia dan Anggaran Implikasi Radiologi Menggunakan Kod-kod Simulasi Monte Carlo MCNP5*. Co-supervisor.
7. Alireza Firouzi. . (2015 – Present). *Change Point Estimation for Multivariate Quality Process*. Co-supervisor.
8. Nur Arina Bazilah binti Kamisan (2010 – 2017). Multiple Linear Regression and Neural Network for Electric Load Forecasting. Main supervisor.
9. Nur Haizum binti Abd Rahman (2010 – 2017). Profiling and Forecasting Air Pollutant Index for Malaysia. Main supervisor.
10. Zakariya Yahya Algamal (2013 – 2016). Adaptive Penalized Likelihood Methods in High Dimensional Generalized Linear Models. Main supervisor. Received Pro-

Chancellor Award and Postgraduate Best Student Award 2016, 56th UTM Convocation.

11. Mua'zu Ramat Abujiya (2012 - 2015). On Efficient Rank Monitoring Techniques for Statistical Quality Control. Main supervisor. Received Postgraduate Best Student Award 2015, 55th UTM Convocation.
12. Osamah Basheer Shukur (2012 - 2015). Artificial Neural Network and Kalman Filter Approaches Based on ARIMA for Daily Wind Speed Forecasting. Main supervisor.
13. Maria Elena binti Nor (2010 - 2014). Error Magnitude and Directional Accuracy for Time Series Forecasting Evaluation. Main supervisor.
14. Ghanim Mhmood Dhaher (2011 - 2014). Bayesian and Fuzzy Kriging in Interpolation Techniques for Spatial Estimation in Mining Fields. Main supervisor.
15. Hussein Javedani Sadaei (2010 - 2013). Improved Models in Fuzzy Time Series for Forecasting. Main supervisor.
16. Hazura Mohamed (2005 - 2013). Taguchi Method in Performance Evaluation of Routing Protocols for Mobile Ad-hoc Networks. Main supervisor.

### Master of Science (M.Sc.)

1. Tengku Salbiah binti Tengku Mohamed. (2017 – Present). *Penalized Logistic Regression Model: A Comparative Study*. Main supervisor.
2. Nur Atikah Rosely (2017 – Present). *Quality Prediction of Refined Bleached Deodorized Palm Oil Using Kernel Partial Least Squares Regression*. Co-supervisor.
3. Mohd Aiman bin Mohd Noor (2017 – Present). *Refined Bleached Deodorized Palm Oil Quality Prediction by Using Non Linear Iterative Partial Least Square Technique*. Co-supervisor.
4. Naam Saleem Fadhil (2013). Electricity Load Forecasting using Hybrid of Multiplicative Double Seasonal Exponential Smoothing Model with Artificial Neural Network. Main supervisor.
5. Rasidah Hussin (1998 - 1999). Co-supervisor.
6. Abdul Wahab Mohamed Ali Hussein (1997 - 1999). Co-supervisor.
7. Ahmad Taufek Abdul Rahman (2001 - 2003). Main supervisor.
8. Sallehudin Sahrone (2003 - 2005). Co-supervisor..
9. Ahmad Zia Ul-Saufie Mohd Jeperi (2006 - 2007). Classification Groups of Terrestrial Gamma Radiation in Malacca State. Main supervisor.
10. Mazalan bin Sarahintu (2005 - 2007). Analyze Factors Affecting the Performance of Dynamic Source Routing Protocol in Mobile Ad Hoc Networks using Taguchi Approach. Main supervisor.

### Bachelor of Science (B.Sc.)

1. Siew Li Joo (2013 - 2014)
2. Koh Chee Chung (2013 - 2014)
3. Low Kee Hong (2011 - 2012)
4. Joanne Kirubalini A/P Jeyaseelan John (2009 - 2010)
5. Siti Hajar binti Arbain (2009 - 2010)
6. Lim Zi Ying (2009 - 2010)
7. Deeviya Mogan (2009 - 2010)
8. Umamageswary a/p Tharenpalan (2008 - 2009)
9. Tng Ai Peng (2008 - 2009)
10. Mohammad Faiz bin Abdul Shukur (2007 - 2008)
11. Suryati bt Kamaruddin (2007 - 2008)
12. Goh Eng Ken (2007 - 2008)
13. Tan Beng Ling (1994 - 1995)
14. Mohamad Yazid bin Esmail (1994 - 1995)
15. So Kean Thong (1994 - 1995)
16. Wan Norazlan Wan Din (1995 - 1996)
17. Lim Poh Tee (1996 - 1997)
18. Tay Kim Gaik (1996 - 1997)
19. Latha a/p Muthusamy (1996 - 1997)
20. Ooi Cui Ling (1996 - 1997)
21. Chua Choon Yan (1996 - 1997)
22. Wong Swee Min (1996 - 1997)
23. Wong Mu Lin (1996 - 1997)
24. Tham Han Leong (1998 - 1999)
25. Low Pei Chin (1998 - 1999)
26. Liao Li Yun (1998 - 1999)
27. Kamarul Faizul bin Che Yaacob (2002 - 2003)
28. Aini Maria binti Razali (2003 - 2004)
29. Nurazreen binti Mohd Tahir (2003 - 2004)
30. Mohd Suhairi bin Ahmad (2003 - 2004)
31. Normaliza bt Jamaluddin (2003 - 2004)
32. SM Elizabeth Rani a/p Allapan (2004 - 2005)
33. Lim Yai Fung (2005 - 2006)

34. Mohd Saiful Adli bin Mohamad (2005 – 2006)
35. Nurul Asyikin bt Mohd Noah (2005 – 2006)
36. Siti Normah bte Hasan (2006 – 2007)
37. Nurul Aidha bt Mohd Tarimizi (2006 – 2007)

## ACCLAIMED ACADEMIC AND ACADEMIC LEADERSHIP

### Keynote/Plenary/Invited

1. Invited Panel Forum: Simposium Kebangsaan Sains Matematik Ke-25. 28-29 Ogos, 2017. Persatuan Sains Matematik Malaysia (PERSAMA). Kuantan, Pahang.
2. Invited Speaker: Data Analysis: Accurate respondents. Seminar Penulisan & Penerbitan Saintifik dan Bengkel 2017. 21-23 March 2017. Nuclear Malaysia, Ministry of Science, Technology and Innovation (MOSTI).
3. Invited Session: Statistical Modelling. The Regional Conference on Statistical Sciences 2010.
4. Invited Session: Statistical Forecasting. The Regional Conference on Statistical Sciences 2010.

### Professional Body – International (Committee Member)

#### *(Professional Committee, Conferences, Editorial Board Member, Panel Assessor)*

1. Editor of Journal of Matematika. (2007 – present).
2. Editor of Communication in Science & Technology. (2016 - present).
3. Associate Editor/Editorial-Board-Member of ACTA Press. (2011 – present).
4. Editor of ADVANCES IN INDUSTRIAL AND APPLIED MATHEMATICS: Proceedings of 23rd Malaysian National Symposium of Mathematical Sciences (SKSM23), 24-26 November 2015, Vol. 1750. ISBN: 978-0-7354-1407-5. Published: 21 June 2016. Johor Bahru, Malaysia.
5. Journal Reviewer of Computers & Industrial Engineering. Q1. Since 2016.
6. Journal Reviewer of Applied Energy. Q1. Since 2015.
7. Journal Reviewer of Tourism Management. Q1. Since 2012.
8. Journal Reviewer of Computers & Industrial Engineering. Q2. Since 2014.
9. Journal Reviewer of SAR and QSAR in Environmental Research. Q2. Since 2016.
10. Journal Reviewer of International Journal of Production Research. Q2. Since 2015.
11. Journal Reviewer of Journal of Applied Statistics. Q3. Since 2013.
12. Journal Reviewer of Computational Statistics and Data Analysis. Q3. Since 2013.
13. Journal Reviewer of Journal of Statistical Computing and Simulation. Q3. 2017.



14. Journal Reviewer of Sains Malaysiana. Q3. Since 2014.
15. Journal Reviewer of the Journal of Supercomputing. Q3
16. Journal Reviewer of Pakistan Journal of Statistics. Q4. 2015.
17. Journal Reviewer of Iranian Journal of Fuzzy Systems. Q4. Since 2012.
18. Journal Reviewer of Journal of the Chinese Institute of Engineers. Q4. Since 2015.
19. Journal Reviewer of Pertanika Journal. Scopus 2015.
20. Journal Reviewer of Jurnal Teknologi. Scopus. Since 2006.
21. Journal Reviewer of ASM Journal of Science, Akademi Sains Malaysia. Scopus.
22. Journal Reviewer of Hacettepe Journal of Mathematics and Statistics. Scopus. Since 2010.
23. Journal Reviewer of ACTA Press. Since 2008.
24. Journal Reviewer of World Applied Sciences Journal.
25. Journal Reviewer of Int. J. Simulation and Process Modelling.
26. Journal Reviewer of International Conference on Computer Science and Information Technology.

### Committee in National/University Level (Chairperson)

#### National

1. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master of Education Mathematics with Information Technology, Universiti Malaysia Terengganu (UMT). MQA/PA 9122. 6 July 2017.
2. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Statistics with Education, Universiti Pendidikan Sultan Idris (UPSI). MQA/PA 9384. 1 June 2017.
3. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master in Marine Statistics, Universiti Malaysia Terengganu (UMT). MQA/PA 9120. 10 Apr. 2017.
4. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Hons) Operational Research with Data Science, Universiti Pertahanan Nasional Malaysia (UPNM). MQA/PA 9126. 14 Feb. 2017.
5. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master in Mathematics, Universiti Malaysia Terengganu (UMT). MQA/PA 9121. 26 Jan. 2017.
6. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Science (Industrial Statistics), Universiti Tun Hussein Onn (UTHM). MQA/FA 0728. 4 March 2017.

7. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science in Statistical Modeling, Heriot-Watt University Malaysia. MQA/PA 8513. 16 February 2016.
8. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Diploma Quantitative Science, Universiti Selangor (UniSel). MQA/FA 1119. 29-30 March 2016.
9. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Master of Science (Applied Mathematics), Universiti Tun Hussein Onn (UTHM). MQA/FA 1349. 26-27 January 2016.
10. Chairman of Panel Assessor of Malaysia Qualification Agency (MQA) for Final Accreditation of Master of Science (Engineering Mathematics), Universiti Malaysia Perlis (UniMAP), Arau Perlis. MQA/FA0510. Schedule: 13-14 August 2015.
11. Chairman of Panel Assessor of Malaysia Qualification Agency (MQA) for Final Accreditation of Bachelor of Science (Hons) Mathematics and Economics, College of Arts and Technology HELP, Kuala Lumpur. 3+0 External with Univesity of London. MQA/FA2395. 2015.
12. Chairman of Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Diploma Quantitative Science, Universiti Selangor (UNISEL), Kampus Berjuntai Bestari, Batang Berjuntai. (#PA 1119, 2011)
13. Head of Judges of the Pre-World Statistics Day 2010.

## University

1. Pengerusi bagi pembangunan sistem Differentiated Career Pathways (DCP) Staf Akademik, UTM. 1 June 2017 - present.
2. Pengerusi bagi Jawatankuasa Pembangunan Sistem Pentadbir Akademik Universiti, UTM. 2016 - present.
3. Pengerusi bagi Jawatankuasa Perolehan Teknikal Sebutharga Pejabat Timbalan Naib Canselor (Akademik dan Antarabangsa). 1 Jan 2015 - 31 Dis 2016.
4. Chairman of the Oral Examination. Doctor of Philosophy (Mathematics) Muhamad Alias bin Md. Jedi. 2015. Ref.: UTM.J.10.01/14.14/1/6/1/9 Jld.10 (186). 21 June 2015.
5. Chairman of Panel Assessor of Swa Accreditation of Master of Professional Science. December 2015.
6. Chairman of the Oral Examination. Master of Science program, Nor Hidayah Binti Ismail. 2014. Ref.: UTM.J.26/14.14/6 Jld.12 (105).
7. Chairman of Technical Evaluation Committee, RMC. 1 Jan. 2011 - 30 Apr. 2013.
8. Chairman of Technical Evaluation Committee, RMC. 1 Jan. 2010 - 31 Dis. 2011.
9. Chairman of Quotation Evaluation Technical Committee, RMC, UTM. 1 May 2011 - 31 April 2013.

10. Chairman of Judges Committee of 13th Industrial Art and Technology Exhibition (INATEX) 2011, UTM.

### Committee in National/University Level (Committee Member)

#### National Level

1. Appointment as Auditor of Malaysia Research Assessment (MyRA) for the period of 2 years (1 Januari 2017 - 31 December 2018). JPT.S(BPKI)2000/021/023/09 Jld. (44).
2. Pelantikan sebagai Ahli Jawatankuasa Pemeringkatan Ahli Panel Penilai Agensi Kelayakan Malaysia. 1 Mac 2017 - 28 Feb 2019. MQA.600-2/15/2 Jld. 2 (16).
3. Appointment as Auditor of Ratings for Universities and University Colleges (SETARA) 2017.
4. Pelantikan sebagai Ahli Jawatankuasa bagi Kajian Impak sistem Kajian Pengesanan Graduan dan sistem MyMoheS, Kementerian Pendidikan Tinggi. 3 Ogos 2017.
5. Appointment as Panel Assessor of Malaysian Qualification Agency (MQA) in Mathematics and Science Statistics for the period of 3 years (August 2015 - August 2018). MQA(S)10/03/2 Jld.86(14).
6. Panel Penilai bagi Penilaian Tapak bagi Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2016: Universiti Kebangsaan Malaysia. 23-24 Mei 2017.
7. Panel Penilai bagi Penilaian Tapak bagi Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2016: Universiti Putra Malaysia. 16-17 Mei 2017.
8. Panel Penilai bagi Penilaian Tapak bagi Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2016: Universiti Malaya. 8-9 Mei 2017.
9. Panel Penilai bagi Penilaian Tapak bagi Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2016: Universiti Sains Malaysia. 3-4 Mei 2017.
10. Panel Penilai bagi Penilaian Dokumen bagi Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2016 bagi semua Universiti Awam serta UTP, UNITEN dan MMU. 10-14 April 2017.
11. Appointment as Auditor of Malaysia Research Assessment (MyRA) Year 2016. JPT.S(BPKI)2000/021/023/09 Jld.4(32).
12. Pelantikan sebagai Ahli Panel Penilai Program Akademik Universiti Malaya (UM) bagi Pengakreditasi Semula Program Sarjana Muda Sains Statistik, Fakulti Sains, UM. 9 Mac 2017. Ref.: UM.C/QMEC3/607/SAINS/35-17.
13. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master of Science (Industrial Computing), Universiti Malaysia Pahang (UMP). MQA/PA 9029. 2 March 2017.
14. Panel Penilai bagi Penilaian Tapak Berkala Setiap 3 Tahun untuk Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2013 dan 2015 di Universiti Kebangsaan Malaysia. 21-23 March 2016.

15. Panel Penilai bagi Penilaian Tapak Berkala Setiap 3 Tahun untuk Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2013 dan 2015 di Universiti Sains Malaysia. 11-13 April 2016.
16. Panel Penilai bagi Penilaian Tapak Berkala Setiap 3 Tahun untuk Pencapaian Universiti Penyelidikan dengan Instrumen MyRA bagi tahun 2013 dan 2015 di Universiti Malaya. 18-20 April 2016.
17. Panel Penilai bagi Penilaian Pencapaian Malaysia Research Assessment (MyRA) Tahun 2015 secara berpusat sesi pertama (UiTM, UTeM, UPM, UMP & UNITEN). 25-29 April 2016.
18. Penilai Makalah Jurnal bagi Anugerah MAPIM-KPT 2015. 17 Feb. 2016.
19. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Doctor of Philosophy (PhD) of Science, Universiti Teknologi Petronas (UTP). MQA/FA 2065. 23 February 2016.
20. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Science (Technology Mathematics), Universiti Tun Hussein Onn (UTHM). MQA/FA 0723. 1 February 2016.
21. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Master of Science (Industrial Statistics), Universiti Tun Hussein Onn Malaysia. MQA/FA1350. Schedule: 26-27 January 2016.
22. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Education in Primary School (Mathematics), Universiti Pendidikan Sultan Idris. MQA/FA8047. Schedule: 9-10 January 2016.
23. Panel Site Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Sains Malaysia (USM) for Year 2014. 22-24 April 2015.
24. Panel Site Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Tun Hussein Onn Malaysia (UTHM) for Year 2014. 26-28 April 2015.
25. Panel Site Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Sains Islam Malaysia (USIM) for Year 2014. 5-7 May 2015.
26. Panel Site Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Teknikal Malaysia Melaka (UTeM) for Year 2014. 18-20 May 2015.
27. Panel Site Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Malaysia Pahang (UMP) for Year 2014. 25-27 May 2015.
28. Appointment as Panel Assessor of Star Rating for Malaysia Research Assessment (MyRA) Year 2014. JPT.S(BPKI)2000/021/023/013(26).
29. Panel Assessor of Malaysian Qualification Agency (MQA) for area of Mathematical and Statistical Sciences, 3 September 2012 - 2 September 2015.
30. Panel Assessor of Malaysian Qualification Agency (MQA) for area of Mathematical and Statistical Sciences, 27 August 2009 - 26 August 2012.

31. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Education (Primary School) with Honour (Mathematics), Universiti Teknologi MARA. MQA/FA8173. 14-15 November 2015.
32. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Education (Primary School) with Honour (Mathematics), Universiti Pendidikan Sultan Idris (UPSI), franchise to USM, Penang. MQA/FA7486. 8-11 May 2015.
33. Panel Assessor of Malaysian Qualification Agency (MQA) for Final Accreditation of Bachelor of Education (Mathematics) with Honour, Universiti Pendidikan Sultan Idris (UPSI), Tanjung Malim, Perak. MQA/FA6126. 3-5 April 2015.
34. Panel Assessor of Malaysia Qualification Agency (MQA) for Audit and Accreditation Postgraduate Program at Faculty of Science and Technology, UKM. 2014.
35. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Hons) Mathematics and Economics 3+0 External with University of London, Kolej Seni dan Teknologi HELP, Kuala Lumpur. (MQA/PA 2395).
36. Appointment as Panel Assessor of Malaysian Qualification Agency (MQA) in Mathematics and Science Statistics for the period of 3 years (August 2012 - August 2015). MQA.600-2/15/1 Jld.36(78).
37. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Hons) Statistical Computing and Operations Research, Universiti Tunku Abdul Rahman (UTAR), Kampus Perak. (#KA 10094, 2009).
38. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Doctor of Philosophy (Science), Universiti Tunku Abdul Rahman (UTAR), Kampus Perak. (#KA 11018, 2009).
39. Panel Assessor of Malaysian Qualification Agency (MQA) for Accreditation of Bachelor of Science (Hons) Mathematics with Statistics, Universiti Industri Selangor, Berjantai Bestari, Selangor. (#A 7402, 2010).
40. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Applied Sciences (Hons) Industrial Mathematics, Universiti Malaysia Pahang (UMP). (#PA 0008, 2010).
41. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master of Science (Applied Mathematics), Universiti Teknologi MARA (UiTM Shah Alam). (#PA 0393, 2010).
42. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Hons) Mathematics Technology, Universiti Tun Hussein Onn Malaysia, Batu Pahat. (#PA 0723, 2011).
43. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Hons) Industrial Statistics, Universiti Tun Hussein Onn Malaysia, Batu Pahat. (#PA 0728, 2011).

44. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Master of Science (Industrial Statistics), Universiti Tun Hussein Onn Malaysia, Batu Pahat. (#PA 1350, 2011).
45. Panel Assessor of Malaysian Qualification Agency (MQA) for Provisional Accreditation of Bachelor of Science (Actuarial Science) by Mixed Mode, Universiti Sains Islam Malaysia (USIM), Nilai, Negeri Sembilan. (#PA 1508, 2012).
46. Panel member of the Scientific Committee of the 23rd National Symposium on Mathematical Sciences (SKSM23). 2015.
47. Panel member of the Scientific Committee of the 22nd National Symposium on Mathematical Sciences (SKSM22). 2014.
48. Elected as Vice President of Institute Statistics of Malaysia (ISM). 2012 - 2014.
49. Council member of Institute Statistics of Malaysia (ISM). 2010 - 2012.
50. Council member of Institute Statistics of Malaysia (ISM). 2008 - 2010.
51. Panel Assessor of PERSAMA Awards (Original Book Works Category), 2011.
52. Panel Assessor of Research and Intellectual Property Award, UTM. 2010.
53. National Organising Committee of World Statistics Day 2010.
54. National Scientific Committee of World Statistics Day 2010.
55. External Examiner of Jyothi U. Doctor of Philosophy Thesis, Department of Statistics, Bharathiar University, India. 2017.
56. External Examiner of Siti Nur Zahrah Amin Burhanuddin. Doctor of Philosophy (Statistics) Thesis, UiTM. 2017.
57. External Examiner of Habib Nawaz Khan. Doctor of Philosophy in Science Thesis, Universiti Teknologi Petronas. 17 Feb. 2017.
58. External Examiner of Nor Hasliza binti Mat Desa. Doctor of Philosophy (Statistics) Thesis, UKM. 14 Dec. 2016.
59. External Examiner of Mohd Norsyarizad bin Razali. PhD (Statistics) Thesis, UKM. 2016.
60. External Examiner of Aida Shafawati Ismail. Master of Science (Statistics) Thesis, UKM. 2010.
61. Panel Assessor of PERSAMA Awards (Original Book Works Category), 2009.
62. Examiner of IEM/BEM Graduate Examination. Part 1 Paper No 101A - Mathematics. Year 1997.
63. Examiner of IEM/BEM Graduate Examination. Part 1 Paper No 101A - Mathematics. Year 1996.
64. Examiner of IEM/BEM Part I Examination. Paper No 105 - Presentation of Engineering Information. Year 1995.

## University

1. Elected University Senate Member of Universiti Teknologi Malaysia for duration 2 May 2017 - 19 Jan. 2020. UTM(S).J.08.02.02/10.14/200 Jld.2(146).
2. Elected University Senate Member of Universiti Teknologi Malaysia for duration 23 Jan. 2014 - 22 Jan 2017. Ref.: UTM(S).J.02.04/10.14/200 Jld.4 (50).
3. Appointment as a Representative in the Senate Standing Committee of the Senate for Academic Policy and Entity (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Dasar dan Entiti Akademik). 2 May 2017 - 19 Jan. 2020. UTM(S).J.08.02.02/10.14/200 Jld.2(146).
4. Appointment as a Representative in the Senate Standing Committee of the Senate for Academic Curriculum and Quality Assurance (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Kurikulum dan Kualiti Akademik). 2 May 2017 - 19 Jan. 2020. UTM(S).J.08.02.02/10.14/200 Jld.2(146).
5. Appointment as a Representative in the Senate Standing Committee of the Senate for Library and Educational Resources (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Perpustakaan dan Sumber Pendidikan). 2 May 2017 - 19 Jan. 2020. UTM(S).J.08.02.02/10.14/200 Jld.2(146).
6. Appointment as a committee member of Research Strategy, UTM. 1 July 2017 - 30 June 2018.
7. Appointment as a Representative in the Senate Standing Committee of the Senate for Examination and Graduation (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Peperiksaan dan Pengijazahan). 15 Feb. 2015 - 22 Jan. 2017. Ref.: UTM(S).J.02.08.02.02/10.14/200 Jld.4 (107).
8. Appointment as a Representative in the Senate Standing Committee of the Senate for Research and Innovation (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Penyelidikan dan Inovasi). 23 Jan. 2014 - 22 Jan. 2017. Ref.: UTM(S).J.02.04/10.14/200 Jld.4 (125).
9. Appointment as a Representative in the Senate Standing Committee of the Senate for Library and Educational Resources (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Perpustakaan dan Sumber Pendidikan). 23 Jan. 2014 - 22 Jan. 2017. Ref.: UTM(S).J.02.04/10.14/200 Jld.4 (135).
10. Appointment as a Representative in the Senate Standing Committee of the Senate for Industry and Community Linkages (Pelantikan sebagai Wakil Senat dalam Mesyuarat Jawatankuasa Tetap Senat Jaringan Industri dan Masyarakat). 23 Jan. 2014 - 22 Jan. 2017. Ref.: UTM(S).J.02.04/10.14/200 Jld.4 (141).
11. Panel Audit Bahan Bukti RU UTM. 2016.
12. Panel Mock Audit for the Star Rating Assessment of Malaysia Research Assessment Instrument (MyRA) Universiti Teknologi Malaysia (UTM) for Year 2014. 29-30 April 2015
13. Appointment as Internal Examiner of Noraziah binti Aszhar. Doctor of Philosophy (Mathematics) Thesis, UTM. 17 June 2015.

14. Internal Examiner of Nur Atikah binti Salahudin. Doctor of Philosophy (Mathematics) Thesis, UTM. 2016.
15. Internal Examiner of Olayonwa Ganiyu Onatunde. Doctor of Philosophy (Built Environment) Thesis, UTM. 2012.
16. Internal Examiner of Rahaini Mohd Said. Master of Science (Mathematics) Thesis, UTM. 2011.
17. Internal Examiner of Rafidah Ali. Master of Science (Mathematics) Thesis, UTM. 2011.
18. Internal Examiner of Gan Siew Lee. Master of Science (Mathematics) Thesis, UTM. 2011.
19. Internal Examiner of Norizan bint Mohamed. Parametric and Artificial Intelligence Based Methods for Forecasting Short Term Electricity Load Demand. Doctor Philosophy (Mathematics) Thesis, UTM. 2011.
20. Internal Examiner of Shazirawati binti Mohd Puzi. Towards Information Integration in Sensor Networks. Doctor of Philosophy (Mathematics) Thesis, UTM. 2010.
21. Internal Examiner of Oh Yit Leng. Master of Science (Mathematics) Thesis, UTM. 2010.
22. Internal Examiner of Gan Long Fatt. Master of Science (Mathematics) Thesis, UTM. 2009.
23. Internal Examiner of Norliana Mohd Lip. Master of Science (Mathematics) Thesis, UTM. 2009.
24. Internal Examiner of Raijama Zainordin. Master of Science (Mathematics) Thesis, UTM. 2009. Journal Reviewer of Journal of Fundamental Sciences, UTM.
25. Journal Reviewer of Malaysian Journal of Civil Engineering (MJCE), UTM.
26. Journal Reviewer of Jurnal Teknologi, UTM.
27. Reviewer of the First ISM International Statistical Conference 2012, UTM.
28. Reviewer of the 2nd International Conference on Software Engineering and Computer Systems, UTM.
29. IT Technical Committee (JATIT), UTM.
30. Working Committee of Graduate Studies Management System (GMSM), UTM. 2010.
31. Panel Audit, Anugerah Teknologi Maklumat 2011, CICT, UTM. 2012.
32. Panel Anugerah Penyelidikan dan Harta Intelek 2008, Pendaftar, UTM. 2009.
33. Ahli Jawatankuasa Pemurnian Semula Polisi ICT Universiti, CICT, UTM. 2009.
34. Jawatankuasa Penilai Tender bagi Lab Upgrade di Pusat Perkhidmatan ICT Pelajar, CICT, UTM. 2009.
35. Panel Penilai Bengkel Penilaian Proposal FRGS bagi RMK9 bagi Kluster Fundamental Sains dan Matematik, RMC, UTM. 2009.
36. Main Committee of Occupational Safety, Health and Environment (OSHA), UTM. 2009 - 2011.



37. Main Committee of Industrial Art and Technology Exhibition (INATEX), UTM. 2009.
38. MyMoheS: Data Quality Monitoring of the Main Committee, UTM. 2009.
39. MyMoheS: Committee on the Preparation and Submission of Data UTM. 2009.
40. Penilaian Anugerah Buku Karya Asli 2009 (Penilai Pakar Bidang Kategori Anugerah Buku Karya Asli), Penerbit, UTM.
41. Information Technology Awards Panel: Content Development Category, UTM. 2008.

### Awards

1. UTM Excellent Service Award Year 2012.
2. Information Technology Awards, RMC, UTM, 2012.
3. Finalist of Information Technology Awards, UTM. 2010.
4. UTM Excellent Service Award Year 2009. Ref.: UTM(S) 02.02/12.25/1/6(64).
5. PERSAMA Awards 2009: Scientific paper. Application of Taguchi method to investigate several network parameters affecting the performance of dynamic source routing protocol in a self-organizing network.
6. Best Poster Award for the Second International Conference and Workshop on Basic and Applied Sciences and Regional Annual Fundamental Science Seminar 2009.
7. Lecturer Excellence Award 2008. SAS Forum 2008. SAS Malaysia. 15 - 16 July 2008. Kuala Lumpur.
8. Letter of Appreciation and Congratulation: Top 5% Best Lecturer of Part-Time Study Programme in SPACE UTM, Semester I, 2006/2007 Session. Ref.: UTM(S) 01.08/10.14/22 (15) dated 5 September 2007.
9. UTM Excellent Service Award Year 2006. Ref.: UTM(S) 02.01/12.25/6 Jld. 5(90).
10. Letter of Appreciation and Congratulation: Top 5% Best Lecturer of Part-Time Study Programme in SPACE UTM, Semester II, 2005/2006 Session. Ref.: UTM(S) 01.08/10.14/22 (10) dated 19 December 2006.

### Task Force

11. Ahli Task Force Audit Institusi bagi Tujuan Pengekalan Status Swaakreditasi, UTM. UTM.01.06/10.13/124Jld.10(80). UTM. 2 Apr. 2017 - 1 Apr. 2018.
12. Jawatankuasa Kerja bagi Cadangan Penambahbaikan eLPPT Staf Akademik Kearah Agihan dan Penilaian Lebih Adil dan Secara Langsung Mampu Mengekalkan Universiti Penyelidikan, UTM. 2012 - Present.
13. Jawatankuasa Kerja UTM Research Computing. 10/11/2016 - present.
14. Ahli Jawatankuasa bagi Jawatankuasa Pelaksanaan *Integrated*-CGPA (iCGPA) Universiti Teknologi Malaysia. 20 July 2016 - 19 July 2017.
15. Ahli Jawatankuasa bagi Jawatankuasa Pemandu Sistem UTMACAD. 2016 - present.

16. Ahli Jawatankuasa Kerja bagi Differentiated Career Pathways (DCP), UTM. 2015 – Present.
17. Ahli Task Force bagi Pelan Pengantian Pentadbir Akademik, UTM. 1/12/2016 - 30/11/2018.
18. Ahli Jawatankuasa Kerja bagi Kaedah Pengiraan Beban Tugas Staf Akademik Universiti Teknologi Malaysia. 2014 – 2016.
19. Ahli Jawatankuasa Kerja bagi Pembangunan Sistem Beban Tugas Staf Pengurusan dan Profesional, UTM. 2016.
20. Task Force Siasatan Kes Perubahan Markah Peperiksaan Akhir Sem II Ses 2015/2016 Pelajar Program Kerjasama. 25/5/2016 - 30/6/2016.
21. Jawatankuasa Kerja Siasatan Kes Kursus Tamadun Islam dan Tamadun Asia (TITAS). 14/6/2016 - 31/7/2016.
22. Ahli Jawatankuasa Kerja bagi Kajian Kaedah Pelaksanaan Autonomi Pengambilan Pelajar Prasiswazah Universiti Teknologi Malaysia. 2015.

## SERVICES TO UNIVERSITY AND SOCIETY

### Academic Administration

1. 1 Apr 2016 – 31 Mar 2018: IT Manager, Office of the Deputy Vice-Chancellor (Academic and International), UTM.
2. 1 Apr 2014 – 31 Mar 2016: IT Manager, Office of the Deputy Vice-Chancellor (Academic and International), UTM.
3. 15 Nov. 2010 – 14 Nov. 2012: IT Manager, Research Management Centre, UTM.
4. 15 Nov. 2008 – 14 Nov. 2010: IT Manager, Research Management Centre, UTM.

### Academic Committee/Community Service

1. Elected Committee Member of Parent-Teacher Association, Secondary School of Bandar Putra, Kulaijaya, Johor. Session 2015/2016.
2. Elected Chairman of Parent-Teacher Association, Primary School of Putra Utama, Kulaijaya, Johor. Session 2014/2015.
3. Elected Committee Member of Parent-Teacher Association, Secondary School of Bandar Putra, Kulaijaya, Johor. Session 2014/2015.
4. Elected Vice Chairman of Parent-Teacher Association, Primary School of Putra Utama, Kulaijaya, Johor. Session 2012/2013.
5. Elected Hon. Secretary of Jalan Kempas Residents Association, Bandar Putra, Kulaijaya, Johor. Session 2012/2013.
6. Elected Committee member of Parent-Teacher Association, Sekolah Menengah Kebangsaan Bandar Putra, Kulaijaya, Johor. Session 2012/2013.

7. IT Committee, Department of Mathematical Sciences, Universiti Teknologi Malaysia. 1 Jan. 2012 - 31 Dis. 2013.
8. Committee member of Jalan Kempas Residents Association, Bandar Putra, Kulaijaya, Johor. Session 2011/2012.
9. Committee member of Parent-Teacher Association, Sekolah Menengah Kebangsaan Bandar Putra, Kulaijaya, Johor. Session 2011/2012.
10. Committee member of Parent-Teacher Association, Primary School of Putra Utama, Kulaijaya, Johor. Session 2011/2012.
11. Webmaster Committee, Department of Mathematics, Universiti Teknologi Malaysia. 17.4.2008 - 31.12.2009.
12. Chairman of Parent-Teacher Association, Primary School of Senai, Johor. Session 2007/2008.
13. IT Committee, Department of Mathematics, Universiti Teknologi Malaysia. 17 Apr. 2008 - 16 Apr. 2009.
14. Chairman of Parent-Teacher Association, Primary School of Senai, Johor. Session 2006/2007.
15. Vice Chairman of Parent-Teacher Association, Primary School of Senai, Johor. Session 2005/2006.
16. Webmaster of the Journal of Matematika, Faculty of Science, Universiti Teknologi Malaysia. 2006 - 2008.
17. Vice Chairman of Parent-Teacher Association, Primary School of Senai, Johor. Session 2003/2004.
18. Vice Chairman of Parent-Teacher Association, Primary School of Senai, Johor. Session 2002/2003.
19. Head of the Mathematics Laboratory, Universiti Teknologi Malaysia. 2002 - 2004.
20. Academic Adviser, Faculty of Science, Universiti Teknologi Malaysia. 1994 - 1996.

### Resource Person on Short Courses or Training

1. Bengkel Pengurusan Bajet Berhemah dan ROI, Perpustakaan Tun Seri Lanan, UKM. 19-20 Nov. 2014. Penceramah/Fasilitator.
2. Research Methodology Workshop for Post Graduate Students. 2010/2011-2. Speaker.
3. Research Methodology Workshop for Post Graduate Students. 2010/2011-1. Speaker.
4. Research Methodology Workshop for Post Graduate Students. 2008/2009-2. Speaker.
5. Strategic Planning Workshop 2011, RMC, 2011. Facilitator.
6. LaTeX Workshop, Faculty of Science, UTM. 2010. Facilitator.
7. Statistics and System Thinking as Applied in Agro-Biotechnology Workshop. Agro-Biotechnology Institute, MOSTI. 2009. Speaker.

8. Course in Hydrographic (HYDRO I). FIG/IHO Category B. Year 1996. Lecturer.

### Intellectual Properties of Copyrights

1. Electrical Load Forecasting Software - H+ (24/7/2012)
2. Research Record Reporting System (Sistem Pelaporan Rekod Penyelidikan)
3. Research Activity Reporting System (Sistem Pelaporan Aktiviti Penyelidikan)
4. Research Appointment Reporting System (Sistem Pelaporan Lantikan Penyelidikan)
5. Intellectual Property Management System (IPSM)

### Consultation and Industry Linkages

1. Enhancement of Environmental Performance Index (EPI) for Malaysia, 2014. Ministry of Natural Resources and Environment. 2014. RM286,948. Consultant.
2. Pemetaan Isodos Sinaran Mengion Semenanjung Malaysia (Isotopes Mapping Ionizing for Peninsular Malaysia). Atomic Energy Licensing Board, Ministry of Science, Technology and Innovation (MOSTI). 2012. Total RM400,000. Consultant.
3. Customer - Public Preference of Energy Conservation Technology. Tenaga National Berhad. Vote 26-63100. (1992 - 1994). Consultant.
4. Kajian Mengenai Permintaan dan Penawaran Gunatenaga serta Keperluan Latihan dalam Industri Pembinaan di Semenanjung Malaysia sehingga Tahun 2005. Economic Planning Unit (EPU). (1996). Consultant.
5. The Variation of Total Weight of Polyethylene Bag. UTSB.PER/TWP 096. (1995). Consultant.