

CURRICULUM VITAE

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EDUCATION

PhD. (Mathematics)	University of South Australia, Adelaide Australia	Dec. 2011
MSc. (Statistics)	Universiti Kebangsaan Malaysia, Malaysia	Jul. 2006
Dip. of Education	Maktab Perguruan Teknik, Cheras, Malaysia	Feb. 2003
B. App. Sc. (Mathematics)	Queensland Uni. of Technology, Australia	Oct. 1989

PROFESSIONAL APPOINTMENTS

Deputy Dean (Academic & Student Affairs) Universiti Malaysia Pahang	Sept 2016 – Aug. 2018
Deputy Dean (Academic & Student Affairs) Universiti Malaysia Pahang	Sept 2014 – Aug. 2016
Head of Programme (Science) Universiti Malaysia Pahang	Mar 2012 – Aug. 2014
Teaching & Learning Coordinator Universiti Malaysia Pahang	Sept 2011 – Aug 2013
Associate Professor Universiti Malaysia Pahang	31 Okt 2018 – present
Senior Lecturer Universiti Malaysia Pahang	Dec 2011 – 30 Okt 2018
Lecturer Universiti Malaysia Pahang	2004 – Nov 2011

PROFESSIONAL SOCIETIES

Malaysian Mathematical Sciences Society (PERSAMA), 2011 – **No: RS2011-3 (life)**
Malaysian Statistical Institute (ISM), 2012 – **No: 818 (life)**

FIELD OF SPECIALIZATIONS

Statistical Modeling, Environmental Statistics and Applied Statistics.

SCHOLARSHIPS/AWARDS

1. Full PhD Scholarship Award from Universiti Malaysia Pahang/KPT (Mac 2007 – Dec 2010)
2. Full Masters Scholarship Award from Universiti Malaysia Pahang/KPT (May 2004 – June 2006)
3. Full Diploma Scholarship Award from MARA (2002 - 2003)
4. Full Bachelor Scholarship Award from JPA (1985 – 1989)
5. Performance Award: George Edward Curphey during final year B. App.Sc. (Mathematics) (March 1990) from Queensland University of Technology.

RECOGNITION/AWARDS

In Service

Anugerah Perkhidmatan Cemerlang 2016, Hari Kualiti & Inovasi 2017, Universiti Malaysia Pahang

Anugerah Perkhidmatan Cemerlang 2012, Hari Kualiti & Inovasi 2013, Universiti Malaysia Pahang

Dedication Award, Annual Grand Dinner 2013, Faculty of Industrial Sciences and Technology, Universiti Malaysia Pahang,

In Research

Patent Application: PI2018000655, 7 May 2018

Method and System for Forecasting Commodity Prices

Members: Siti Roslindar Yaziz, **Roslinazairimah Zakaria**

Copyright: Exhibit UMP-1, 11 May 2015.

Forecasting Malaysia Gold Price Using Hybrid ARIMA with Symmetric GARCH Modeling (Backward ARIMA-GARCH in Forecasting Gold Price for Malaysia Market).

Members: Siti Roslindar Yaziz, **Roslinazairimah Zakaria**, Noor Azlinna Azizan, Maizah Hura Ahmad, Siti Zanariah Satari.

Exposition/ Competition

Best Paper Award, **i-BUSS 2018**, Descriptive Analysis of Students' CGPA: A Case Study of Universiti Malaysia Pahang, Aceh Indonesia, 2-3 May 2018.

Members: **Roslinazairimah Zakaria**, Siti Zanariah Satari, Nur Alisa Damanhuri and Rozieana Khairuddin.

Silver Medal **ITEX 2018**, Reliable Gold Price Predictor, Kuala Lumpur Malaysia, 10-12 May 2018.

Members: Siti Roslindar Yaziz, **Roslinazairimah Zakaria** and Maizah Hura Ahmad

Gold Medal, in the Creation, Innovation, Technology & Research Exposition 2018 (CITREX 2018) for “Forecasting Gold Price Based on Box-Jenkins-Garch’s Algorithm”, 7- 8 February 2018, Universiti Malaysia Pahang.

Members: Siti Roslindar Yaziz and **Roslinazairimah Zakaria**

Silver Medal, in the Creation, Innovation, Technology & Research Exposition 2018 (CITREX 2018) for “A New Integrated Assessment and Reporting Mechanism For Extra-curricular Activities (xCGPA)”, 7- 8 February 2018, Universiti Malaysia Pahang.

Members: Siti Zanariah Satari, Rozieana Khairuddin, Nur Alisa Damanhuri and **Roslinazairimah Zakaria**.

Bronze Medal, in the Creation, Innovation, Technology & Research Exposition 2017 (CITREX 2017) for “Determination of Sample Size for Volatile Data using New Box-Jenkins-GARCH Framework: Gold Price Forecasting”, 13-14 March 2017, Universiti Malaysia Pahang.

Members: **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad.

Bronze Medal, in the Malaysia Technology Expo 2016 (MTE 2016) for “Forecasting Gold Price using Hybrid of Backward ARIMA-GARCH for Malaysia Market”, 18-20 February 2016, Kuala Lumpur.

Members: **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad.

Gold Medal **CiTREx 2015**, Forecasting Malaysia Gold Price Using Hybrid ARIMA with Symmetric GARCH Modelling, Universiti Malaysia Pahang, 9-10 March 2015.

Members: **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad.

Silver Medal **CiTREx 2015**, A Regional Frequency Analysis of Annual Maximum Rainfall in Terengganu Using the Index Rainfall and L-moments Approaches, Universiti Malaysia Pahang, 9-10 March 2015.

Members: **Roslinazairimah Zakaria**, Noor Fadhilah Ahmad Radi, Muhammad Az-Zuhri Azman, Nor Hafizah Moslim.

Bronze Medal **ITEX 2014**, Comparison of Sum of Two Correlated Gamma Variables for Alouni’s Model and McKay Distribution, Kuala Lumpur Convention Center, 8-10 May 2014.

Members: **Roslinazairimah Zakaria**, John Boland, Nor Hafizah Moslim.

Bronze Medal **ITEX 2014**, Modelling Gold Price Using Hybrid of Box-Jenkins-GARCH, Kuala Lumpur Convention Center, 8-10 May 2014.

Members: **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad, Nor Hafizah Moslim, Manju Agrawal, John Boland.

Gold Medal **CiTREx 2014**, Comparison of Sum of Two Correlated Gamma Variables for Alouni's Model and McKay Distribution, Universiti Malaysia Pahang, 5-6 March 2014.

Members: **Roslinazairimah Zakaria**, John Boland, Nor Hafizah Moslim.

Gold Medal **CiTREx 2014**, Modelling Gold Price Using Hybrid of Box-Jenkins-GARCH, Universiti Malaysia Pahang, 5-6 March 2014.

Members: **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, John Boland, Nor Hafizah Moslim, Noor Azlinna Azizan, Maizah Hura Ahmad, Manju Agrawal.

Bronze Medal **CiTREx 2014**, Modelling of Students' Attitudes Towards Learning in Statistics: A Case Study in UMP, Universiti Malaysia Pahang, 5-6 March 2014.

Members: Hassan Rahnaward Ghulami, Mohd Rashid Ab Hamid, **Roslinazairimah Zakaria**.

Silver Medal **CiTREx 2013**, Rainfall Modelling Using the Sum of Independent Gamma Variables, Universiti Malaysia Pahang, 27th - 28th March 2013.

Members: **Roslinazairimah Zakaria**, John Boland, Nor Hafizah Moslim, Abdul Aziz Jemain, Sayang Mohd Deni.

Silver Medal **CiTREx 2013**, Using Sum of Correlated Gamma Variables to Model Catchment Rainfall, Universiti Malaysia Pahang, 27th - 28th March 2013.

Members: **Roslinazairimah Zakaria**, John Boland, Nor Hafizah Moslim, Abdul Aziz Jemain, Sayang Mohd Deni.

PROFESSIONAL SERVICES

Invited Speaker, *Seminar Kepakaran PPIMG 2016* organised by Pusat Pengajian Informatik dan Matematik Gunaan, Universiti Malaysia Terengganu, Swiss Garden Beach Resort Kuantan on 27 Mei 2016.

Invited Speaker, 10th Malaysian Institute of Statistics National Seminar (SKism X), *Empowering Statistics Application in Industry and Community*, organized by Department of Mathematics, Faculty of Science, Universiti Putra Malaysia and Malaysia Institute of Statistics on 18 February 2016.

Invited Speaker, Seminar Kebangsaan Institut Statistik Malaysia Ke-IX (ISM-IX) anjuran Institut Statistik Malaysia & Pusat Pemodelan dan Analisis Data Pusat Pengajian Sains Matematik, Fakulti Sains dan Teknologi, Universiti Kebangsaan Malaysia pada 31 Mac 2015.

Speaker, *Research Methodology Module*, Diploma In Public Administration (DPA) 1/2014, Sidang C & D, INTIM Campus, Kemaman Terengganu, 8-11 June 2014.

Invited Speaker, Seminar Kebangsaan Institut Statistik Malaysia (SKism VIII 2014) anjuran bersama Jabatan Matematik, Fakulti Sains, Universiti Putra Malaysia dan Institut Statistik Malaysia (ISM) di Kompleks Mahasiswa UPM pada 11 Feb 2014.

Speaker, Bengkel *Basic Statistical Methods For R&D*, 22-23 Ogos 2013, Universiti Malaysia Pahang dengan kerjasama Fakulti Sains & Teknologi Industri dan BioKube Solution.

Speaker, Bengkel *Statistics & Research*, 18 Dis 2013, Universiti Malaysia Pahang dianjurkan oleh Fakulti Kejuruteraan Pembuatan.

Reviewer for Atmospheric and Oceanic Letters, 2018

Reviewer for Journal of Statistics Application and Probability, 2018

Reviewer for Communication in Statistics – Theory and Methods, 2018

Reviewer for Water Resources Management (WARM), 2017

Reviewer for International Conference of Applied Industrial Mathematics and Statistics (ICoAIMS), 2017

Reviewer for PERTANIKA, Journal of Science and Technology (JST) 2017

Reviewer for The 2nd International Conference on Statistics in Science, Business and Engineering 2015 (ICSSBE 2015), Pullman Hotel, Putrajaya. 2-3 September 2015.

Reviewer for Special Issue of Sains Malaysiana Journal (April 2012).

Reviewer for International Water Association (IWA) Conference, Busan Korea (Sept. 2012), August - Dec 2011

MODULES/ BOOKS

Statistical Tables 2.0, Nor Hafizah Moslim, Farahanim Misni, Noryanti Muhammad, Nor Azila Che Musa, Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Penerbit Universiti Malaysia Pahang, 2018, ISBN:978-967-2054-85-6

Applied Statistics Module Version 3, Siti Zanariah Satari, Chuan Zun Liang, Farahanim Misni, Nor Hafizah Moslim, Noryanti Muhammad, **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Penerbit Universiti Malaysia Pahang, 2018, ISBN: 978-967-2226-02-4

Applied Statistics Module New Version, Siti Zanariah Satari, Chuan Zun Liang, Farahanim Misni, Nor Hafizah Moslim, Noryanti Muhammad, **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Penerbit Universiti Malaysia Pahang, 2015. ISBN: 978-967-0691-64-0

Applied Statistics Module, Nor Hafizah Moslim, Farahanim Misni, Noryanti Muhammad, **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Siti Zanariah Satari, Penerbit Universiti Malaysia Pahang, 2013. ISBN: 978-967-0120-94-2

Statistical Tables, Nor Hafizah Moslim, Farahanim Misni, Noryanti Muhammad, Nor Azila Che Musa, Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria**, Siti Roslindar Yaziz, Penerbit Universiti Malaysia Pahang, 2013. ISBN:978-967-01207-1-3

POSTGRADUATE SUPERVISION

No	Student's Name	Title	Start Date	End Date	Role
Program: PhD					
1	Noor Fadhilah Ahmad Radi	A Spatial Frequency Analysis of Extreme Rainfall Modelling	2012	2016	Main
			Pre-viva: 1/3/2017 Viva: 22/12/2017 Senate: 28/3/2018		
2	Muhammad Az-Zuhri Azman	Modelling Rainfall Using Poisson- Gamma Model	10/9/13	9/9/16	Main
3	Siti Roslindar Yaziz	Forecasting Univariate Commodity Price Model Using Financial Time Series	2016 1/3/12	2018 28/2/15	Main Co-SV
			Pre-viva: 1/3/2018 Viva: 24/12/2018 Senate:		
4	Shairul Rohaziawati Samat	Multivariate Frequency Analysis in Hydrological Data	2010	2014	Field-SV
Program: Masters					
1	Hassan Rahnaward Ghulami	Modelling of Students' Attitude Towards Learning in Statistics: A Case Study in UMP.	2013	2014 Graduated	Co-SV

JOURNAL PUBLICATIONS

1. **Roslinazairimah Zakaria**, Siti Zanariah Satari, Nur Alisa Damanhuri and Rozieana Khairuddin. 'Descriptive Analysis of Students' CGPA: A Case Study of Universiti Malaysia Pahang', IOP Conf. Series: Materials Science and Engineering 469 (2019) 012100 IOP Publishing doi:10.1088/1757-899X/469/1/012100, 2019.
2. **Roslinazairimah Zakaria**, Noor Fadhilah Ahmad Radi and Siti Zanariah Satari. 'Extraction Method of Extreme Rainfall Data', J. Phys.: Conf. Ser., 890, 012154, 2017.

3. Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria** and Siti Zanariah Satari. 'Generating Monthly Rainfall Amount Using Multivariate Skew-t Copula', J. Phys.: Conf. Ser., 890, 012133, 2017.
4. Nur Faraidah Muhammad Di, Siti Zanariah Satari and **Roslinazairimah Zakaria**. 'Detection of different outlier scenarios in circular regression model using single-linkage method', J. Phys.: Conf. Ser., 890, 012127, 2017.
5. Siti Zanariah Satari , Nur Faraidah Muhammad Di and **Roslinazairimah Zakaria**. 'The multiple outliers detection using agglomerative hierarchical methods in circular regression model', J. Phys.: Conf. Ser., 890, 012152, 2017.
6. Siti Roslindar Yaziz, **Roslinazairimah Zakaria** and Maizah Hura Ahmad. 'Determination of sample size for higher volatile data using new framework of Box-Jenkins model with GARCH: A case study on gold price', J. Phys.: Conf. Ser., 890, 012161, 2017.
7. Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria**, Wan Zawiah and Muhammad Az-zuhri Azman. 'Generating Synthetic Rainfall Total Using Multivariate Skew-t and Checkerboard Copula of Maximum Entropy', Journal of Water Resources Management, pp. 1-16, 2017. DOI: 10.1007/s11269-017-1597-6. **IF: 2.437 (2017)**.
8. Boland, J., Howlett, P., Piantadosi, J. and **Zakaria, R.** 'Modelling and Simulation of Volumetric Rainfall for a Catchment in the Murray–Darling Basin', The ANZIAM Journal, pp. 1–24, 2016. Doi: 10.1017/S1446181116000183. **IF:1.025 (2016)**.
9. **Roslinazairimah Zakaria**, Nor Hafizah Moslim. 'Independent Gamma Variables of McKay Distribution for Rainfall Model', Journal of Computer Science & Computational Mathematics, 5(1), pp. 9-12, 2015. DOI: 10.20967/jcscm.2015.01.002.
10. Hassan Rahnaward Ghulami, Mohd Rashid Ab Hamid, **Roslinazairimah Zakaria**, 'Partial Least Squares Modelling of Attitudes of Students Towards Learning Statistics', Journal of Quality Measurement and Analysis, JQMA 10(1), pp. 1-16, 2014.
11. **Zakaria, R.**, Howlett, P. G., Piantadosi, J., Boland, J. W., Moslim, N. H. 'Modelling Catchment Rainfall Using Sum of Correlated Gamma Variables', Jurnal Teknologi, 63(2), pp. 85-88, 2013. ISSN: 0127-9696
12. **Zakaria, R.** Mathematical modelling of rainfall in the Murray-Darling Basin. PhD thesis, University of South Australia, 2011.
13. **Zakaria, R.**, Metcalfe, A., Howlett, P., Boland, J. & Piantadosi, J. 'Using the bivariate skew-*t* copula to model bivariate rainfall distribution', ANZIAM Journal, 51, pp. C231-C246, 2010.
14. **Zakaria, R.** & Jemain, A.A. Penyuaian Model Markov Untuk Data Hujan Harian di Stesen Subang dan Kota Bharu. Dissertation (MSc. Statistics), Universiti Kebangsaan Malaysia, 2006.

PROCEEDINGS AND PRESENTATIONS

1. Siti Roslindar Yaziz, and **Roslinazairimah Zakaria**, ‘Multistep Forecasting for Highly Volatile Data Using New Algorithm of Box-Jenkins and GARCH’, Simposium Kebangsaan Sains Matematik ke-26 (SKSM26), 28-29 Nov. 2018, TH Hotel Kota Kinabalu, Sabah
2. Muhammad Az-Zuhri Azman, **Roslinazairimah Zakaria** and Siti Zanariah Satari ‘Simulation Study of Adjusted Spatial Weighting Method to Estimate Missing Rainfall Data’, Simposium Kebangsaan Sains Matematik ke-26 (SKSM26), 28-29 Nov. 2018, TH Hotel Kota Kinabalu, Sabah.
3. **Roslinazairimah Zakaria**, Siti Zanariah Satari, Nur Alisa Damanhuri and Rozieana Khairuddin. ‘Descriptive Analysis of Students’ CGPA: A Case Study of Universiti Malaysia Pahang’, UMP-Kopertis Aceh Symposium 2018, May 2-3, 2018, Aceh Indonesia
4. **Roslinazairimah Zakaria**, Noor Fadhilah Ahmad Radi and Siti Zanariah Satari. ‘Extraction Method of Extreme Rainfall Data’, 1st International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), August 8-10 2017, Vistana Kuantan City Centre, Kuantan Pahang.
5. Siti Zanariah Satari, Nur Faraidah Muhammad Di and **Roslinazairimah Zakaria**. ‘The multiple outliers detection using agglomerative hierarchical methods in circular regression model’, 1st International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), August 8-10 2017, Vistana Kuantan City Centre, Kuantan Pahang.
6. Nur Faraidah Muhammad Di, Siti Zanariah Satari and **Roslinazairimah Zakaria**. ‘Detection of different outlier scenarios in circular regression model using single-linkage method’, 1st International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), August 8-10 2017, Vistana Kuantan City Centre, Kuantan Pahang.
7. Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria** and Siti Zanariah Satari. ‘Generating Monthly Rainfall Amount Using Multivariate Skew-t Copula’, 1st International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), August 8-10 2017, Vistana Kuantan City Centre, Kuantan Pahang.
8. Siti Roslindar Yaziz, **Roslinazairimah Zakaria** and Maizah Hura Ahmad. ‘Determination of sample size for higher volatile data using new framework of Box-Jenkins model with GARCH: A case study on gold price’, 1st International Conference on Applied & Industrial Mathematics and Statistics 2017 (ICoAIMS 2017), August 8-10 2017, Vistana Kuantan City Centre, Kuantan Pahang.
9. **Roslinazairimah Zakaria** and Nor Hafizah Moslim. ‘Modelling Rainfall Amounts Using Mixed-Gamma Model for Kuantan District’, The 3rd ISM International Statistical Conference 2016 (ISM-III) August 9–11, 2016, Institute of Mathematical Sciences, University Malaya, Kuala Lumpur.

10. Muhammad Az-zuhri Azman, **Roslinazairimah Zakaria**, Siti Zanariah Satari and Noor Fadhilah Ahmad Radi. 'Entropy of Stable Seasonal Rainfall Distribution in Kelantan'. AIP Conference Proceedings - The 3rd ISM International Statistical Conference 2016 (ISM III).
11. Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria**, Siti Zanariah Satari and Muhammad Az-zuhri Azman. 'Spatial Dependence and Asymptotic Independence of Extreme Rainfall'. Accepted for publication in the AIP Conference Proceedings - The 3rd ISM International Statistical Conference 2016 (ISM III).
12. **Roslinazairimah Zakaria** and Nor Hafizah Moslim. 'Independent Mixed-Gamma Variables for Modelling Rainfall', The 6th NAUN European Conference on Applied Mathematics and Informatics (AMATHI 2015), 10-12 Jan. 2015, Cleopatra Palace Hotel, Tenerife, Canary Islands, Spain.
13. **Roslinazairimah Zakaria** and Nor Hafizah Moslim. 'Independent Gamma Variables of McKay Distribution for Rainfall Model', The 3rd International Conference on Computer Engineering and Mathematical Sciences (ICCEMS 2014), 4-5 Dec. 2014, Aseania Resort and Spa, Langkawi Kedah.
14. Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad, **Roslinazairimah Zakaria**, 'Modelling Malaysia Gold Price Using Hybrid of ARIMA and Symmetric GARCH-types Models', The 3rd International Conference on Computer Engineering and Mathematical Sciences (ICCEMS 2014), 4-5 Dec. 2014, Aseania Resort and Spa, Langkawi Kedah.
15. Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad, **Roslinazairimah Zakaria**, 'Modeling Gold Price Using ARIMA – TGARCH', Simposium Kebangsaan Sains Matematik ke-22 (SKSM22), 24-26 Nov. 2014, Hotel Grand Blue Wave, Shah Alam, Selangor.
16. Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad, **Roslinazairimah Zakaria**, Manju Agrawal and John Boland.' Innovations in the ARIMA – GARCH Modeling in Forecasting Gold Price', The 10th IMT-GT International Conference on Mathematics, Statistics and Its Applications (ICMSA 2014), 14-16 Oct. 2014, Permai Inn Hotel, Kuala Terengganu.
17. Muhammad Az-zuhri Azman, **Roslinazairimah Zakaria** and Noor Fadhilah Ahmad Radi. 'Estimation of Missing Rainfall Data in Pahang Using Modified Spatial Interpolation Weighting Methods', The 2nd ISM International Statistical Conference 2014 With Applications in Sciences and Engineering (ISM-II), 12-14 Aug. 2014, MS Garden Kuantan Pahang.
18. Noor Fadhilah Ahmad Radi, **Roslinazairimah Zakaria** and Muhammad Az-zuhri Azman. 'Estimation of Missing Rainfall Data Using Spatial Interpolation and Imputation Methods', The 2nd ISM International Statistical Conference 2014 With Applications in Sciences and Engineering (ISM-II), 12-14 Aug. 2014, MS Garden Kuantan Pahang.
19. Siti Roslindar Yaziz, Noor Azlinna Azizan, Maizah Hura Ahmad , **Roslinazairimah Zakaria**, Manju Agrawal, John Boland, 'Preliminary Analysis on Hybrid Box-Jenkins – GARCH Modeling in Forecasting Gold Price', The 2nd ISM International Statistical Conference 2014 With Applications in Sciences and Engineering (ISM-II), 12-14 Aug. 2014, MS Garden Kuantan Pahang.

20. Siti Roslindar, Yaziz, Noor Azlinna, Azizan, **Roslinazairimah, Zakaria**, Maizah Hura, Ahmad, 'The Performance of Hybrid ARIMA-GARCH Modeling in Forecasting Gold Price', In: 20th International Congress on Modelling & Simulation 2013 (MODSIM2013), 1-6 December 2013, Adelaide, Australia.
21. **Zakaria, R.**, Boland, J.W., Moslim, N.H. 'Comparison of sum of two correlated gamma variables for Alouini's model and McKay distribution', in 20th International Congress on Modelling & Simulation 2013 (MODSIM2013), 1-6 Dec 2013, Adelaide Convention Center, Adelaide Australia.
22. **Zakaria, R.**, Howlett, P.G., Piantadosi, J., Boland, J.W., Moslim, N.H. 'Modelling rainfall using McKay distribution for uncorrelated gamma variables', in Proceeding International Conference on Applied Analysis and Mathematical Modelling 2013 (ICAAMM 2013), Yildiz Technical University, Istanbul, Turkey, 2-5 June, 2013.
23. **R. Zakaria**, P. G. Howlett, J. Piantadosi, J. W. Boland, 'Rainfall modelling using the sum of independent gamma variables', in Proceeding The 2nd International Conference on Fundamental and Applied Sciences (ICFAS2012), A conference of World Engineering, Science & Technology (ESTCON2012), Kuala Lumpur Convention Centre, Malaysia, 12-14 June, 2012. **AIP Conf. Proc. 1482, pp. 369-372; doi:<http://dx.doi.org/10.1063/1.4757496>**
24. **Zakaria, R.**, Boland, J. , Piantadosi, J., Howlett, P., Nor Hafizah Moslim, Tay Joo Hui, Abdul Aziz Jemain dan Sayang Mohd Deni, 'Modelling Catchment Rainfal using Sum of Correlated Gamma Variables', in Proceeding The 1st ISM International Statistical Conference 2012, Persada Johor, Johor Bahru, 4-6 September, 2012.
25. **Zakaria, R.**, Boland, J. , Piantadosi, J. and Howlett, P. 'Rainfall modelling using the sum of independent gamma variables', in Proceeding The 2nd International Conference on Fundamental and Applied Sciences (ICFAS2012), A conference of World Engineering, Science & Technology (ESTCON2012), Kuala Lumpur Convention Centre, Malaysia, 12-14 June, 2012.
26. **Zakaria, R.**, Boland, J. , Piantadosi, J. and Howlett, P. 'Spatial rainfall modelling using the sum of four correlated Gamma variables', in Proceeding ICECS: 2010 The 3rd International Conference on Environmental and Computer Science, Kunming, China, 17-19 October, 2010.
27. **Roslinazairimah Zakaria** and Abdul Aziz Jemain, 2006 'Markov Model For Wet (Dry) Spell in Subang and Kota Bharu' Proceeding of the National Conference in Mathematical and Statistical Modelling, 75 years of University Putra Malaysia.
28. **Roslinazairimah Zakaria** and Abdul Aziz Jemain. 2006. Penyuaian Model Markov bagi Rentetan Basah (Kering) di Subang dan Kota Bharu (1971-2000). Prosiding Kolokium Siswazah ke-6, Fakulti Sains dan Teknologi, Universiti Kebangsaan Malaysia.

RESEARCH GRANTS

Rainfall Profile for Kuantan District.

Grant No. : **RDU1703208 (UMP)**

Researchers: Roslinazairimah Zakaria (Leader), Siti Zanariah Satari

Amount: **RM10000**

Duration: **30 June 2017-29 June 2019.**

Development of Interactive Software For Gold Price Forecasting

Grant No. : RDU1703198 (UMP)

Researchers: Siti Roslindar Binti Yaziz, **Roslinazairimah Zakaria**, Noratikah Binti Abu

Amount: **21,000.00**

Duration: 30/06/2017-29/06/2019

Development of Forecasting Model For New Tourism Product Demand In Malaysia

Grant No. : RDU1703183 (UMP)

Researchers: Noratikah Binti Abu, Adam Shariff Bin Adli Aminuddin, Diyana Binti Kamarudin, **Roslinazairimah Binti Zakaria**, Zuriani Binti Mustaffa

Amount: 20,000.00

Duration: 30/06/2017- 29/06/2019

Academic Talent Management System (ATMS) Rubric to Identify Multitrack Inclination for Academic Staff In Universiti Malaysia Pahang. Teaching and Learning UMP Research Grant.

Grant No: RDU1703275

Researchers: Nor Alisa Binti Mohd Damanhuri, **Roslinazairimah Binti Zakaria**, Nasratun Binti Masngut, Rozieana Binti Khairuddin, Siti Zanariah Binti Satari.

Amount: RM24700

Duration: 30/06/2017-29/06/2019

A New Integrated Assessment and Reporting Mechanism for Extra Curricular Activities. Teaching and Learning UMP Research Grant.

Researchers: Siti Zanariah Binti Satari, Rozieana Binti Khairuddin, Nor Alisa Binti Mohd Damanhuri, **Roslinazairimah Binti Zakaria**

Grant No: RDU1703272

Amount: RM24999

Duration: 30/06/2017-29/06/2019

Development of Clustering-Based Procedures for Detection Multiple Outliers in Circular

Model with Wind Direction Data Application.

Grant No. : **RDU160117 (FRGS)**

Researchers: Siti Zanariah Satari (Leader), **Roslinazairimah Zakaria**, Yong Zulina

Amount: **RM65500**

Duration: **1 August 2016-31 July 2018.**

Grant No. : **RDU150393** (Flagship Grant-UMP)

Amount: RM 150,000

Sub-project: **Regionalization of Rainfall Stations** Flood Mitigation Mechanisms in Minimizing Flood Calamities – Flood Hazard Map (FHM) and early Flood Warning System (FWS) for Kuantan Basin **in Kuantan Using Hybrid-cluster Analysis**

Researchers: Chuan Zun Liang (Leader), **Roslinazairimah Zakaria**

Duration: 25 November 2015 - 24 November 2017

A Hybridization of Box-Jenkins - GARCH in Forecasting Gold Price.

Grant No. : **RDU130369**

Researchers: **Roslinazairimah Zakaria (Leader)**, Siti Roslindar Yaziz, Nor Hafizah Moslim, PM Dr Noor Azlinna Azizan, PM Dr Maizah Hura Ahmad.

Amount: RM 20,500

Duration: 25 October 2013 - 25 April 2016

Keberkesanan Teknologi Pengekstrakan dan Penentuan Kualialiti Produk Berasaskan Gaharu.

Grant No. : **RDU121002**

Researchers: Saiful Nizam Tajuddin (Leader), Prof. Dr Mashitah Yusoff, Mohd Hasbi Ab Rahim, **Roslinazairimah Zakaria**, Fatmawati Adam, Muhammad Shafri Najib

Amount: RM 172,000

Duration: 15 Okt 2012- 14 Okt 2014

Stochastic Dynamic Petri Nets Model at Signalised Intersection.

Grant No. : **600-RMI/FRGS 5/3 (57/2012)**

Researchers: Mohd Amizan Mohamed @ Arifin (leader), Siti Zaharah Ishak, **Roslinazairimah Zakaria**.

Amount: RM 61,5000; Duration: 15 April 2012 – 14 April 2015

Spatial and Temporal Analysis of Rainfall Amounts Using Sum of Correlated Gamma Model and Poisson-Gamma Model.

Grant No. : **FRGS/1/2012/ST06/UMP/02/2 (RDU 120101)**

Researchers: **Roslinazairimah Zakaria (Leader)**, Prof. Dr Abdul Aziz Jemain, Sayang Mohd Deni, Nor Hafizah Moslim, Tay Joo Hui.

Amount: RM 100,000; Duration: 1 Mei 2012 – 30 April 2015

Development of multivariate statistical process monitoring system using multidimensional scaling technique for continuous and batch-based process.

Grant No. : **RDU 110371**

Researchers: Mohd Yusri Mohd Yunos (Leader), Kamarul Hawari Ghazali, **Roslinazairimah Zakaria**

Amount: RM 172,000; Duration: 1 Sept 2011 – 1 Sept 2013