



MARINAH MUHAMMAD Senior Lecturer

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ACADEMIC QUALIFICATIONS

PhD in Mathematical Statistics 2018

University of Southampton

M. Sc. (Applied Statistics) 2003

Universiti Putra Malaysia

B. Sc. (Hons) Statistics 1999

Universiti Putra Malaysia

HONOURS AND AWARDS

Silver medal teaching and learning
innovation carnival TeLIC2020

Best Mathematics Book Award 2018

National Book Award 2017

Excellent Service Award UMK 2013

Gold medal product innovation i-INVEX
2013

University Excellent Award UMK 2010

Excellent Service Award UMK 2009

WORK EXPERIENCE

Dec 2011 – current

Senior Lecturer, Faculty of Earth Science,
Universiti Malaysia Kelantan, Jeli,
Kelantan.

Dec 2007 – Nov 2011

Lecturer, Faculty of Agro Industry and
Natural Resources, Universiti Malaysia
Kelantan, Kota Bharu, Kelantan.

Mac 1999 – Nov 2007

Lecturer, UTM Department, IKIP
International College, Kuantan, Pahang.

RESEARCH GRANTS

Nov 2020 - Okt 2022

IoT approach to detect and modelling
Fusarium wilt disease on banana for early
crop protection. (FRGS)

Nov 2020 - Okt 2021

Trend analysis of flood events and their
relationship to extreme rainfall for flood
mitigation in Kelantan. (UMK-FUND)

Jul 2020 - Jun 2021

Probabilistic distribution and
multidimensional analysis of ground level
ozone in urban area. (UMK-Rising STAR)

Dec 2019 - Dec 2020

Influence of forest cover change on
moisture recycling in Kelantan River Basin
(SGJP)

Aug 2019 - Jul 2021

Mineralogical identification and Rare Earth
Element (REE) Resources in Granitoid
Rock using Geological and geochemical
method in Kelantan. (RACER)

Jun 2019 - Jun 2020

The effect of selective and clear logging
on soil characteristic from humid tropical
forest in Kelantan Malaysia. (SGJP)

Jan 2015 - Oct 2018

Non-Gaussian Spatial Modelling in Index
Flood Estimation. (SLAB/SLAI)

April 2013 – Feb 2015

Purification and characterization of allergic
pollen proteins from 10 common local
fruits flower in Kelantan (FRGS)

Sept 2012 – Sept 2013

Strategic mechanism in talent
management in IPTA (IPPTN)

Jan 2012 – Dec 2012

The roles and impacts of liberal education
in the context of higher education in
Malaysia

Sept 2011 – Sept 2012

Study on the employability of graduates in
agriculture in the commercial plantations in
Malaysia (IPPTN)

April 2011 – April 2013

Modelling of Heavy Metal and Microbial
Contamination along Kelantan Coast
(FRGS)

Oct 2010 – April 2011

Study on the status of implementation of
the Entrepreneurship Education in
Institutions of Higher Learning in Malaysia
(IPPTN)

August 2009 – August 2011

Comparison study in Forecasting Method
using paddy production data in Kelantan
(SGJP)

CONSULTATIONS

3 March – 24 March 2013	Kajian Sosio-Ekonomi Impak Universiti Malaysia Kelantan (UMK) terhadap penduduk setempat Granting Agency: ECER-DC
Nov 2010 – May 2011	Kajian Status Penglibatan Belia ECER dalam Bidang Pertanian Granting Agency: IPPBN
Oct 2009 – June 2010	Kajian Sosio-Ekonomi Penanam Tembakau di Malaysia Granting Agency: LKTN

MAIN PUBLICATIONS

- [1] Muhammad, M., & Lu, Z. (2020). Estimating the UK Index Flood: an Improved Spatial Flooding Analysis. *Environmental Modeling & Assessment*, 25(5), 731-748.
- [2] Bahar, A. M. A., Muhammad, M., Khan, M. M. A., & Jemali, N. J. N. (2020, August). Statistical and Spatial Analyses of the Kelantan Big Yellow Flood 2014. In *IOP Conference Series: Earth and Environmental Science* (Vol. 549, No. 1, p. 012014). IOP Publishing.
- [3] Muhammad, M., Bahar, A. M. A., Khan, M. M. A., & Jemali, N. J. N. (2020, December). Kelantan Big Yellow Flood 2014: Statistical Analysis on Relationship between Rainfall Intensity and Water Level. In *IOP Conference Series: Earth and Environmental Science* (Vol. 596, No. 1, p. 012062). IOP Publishing.
- [4] Jemali, N., Muhammad, M., & Yahya, J. (2020, December). Wood-based industry in Kelantan. In *IOP Conference Series: Earth and Environmental Science* (Vol. 596, No. 1, p. 012068). IOP Publishing.
- [5] Jemali, N. J. N., Abd Rhani, M. F., Muhammad, M., & Majid, N. K. S. A. (2020, August). Forest Growth Analysis of Ulu Sat Forest Reserve. In *IOP Conference Series: Earth and Environmental Science* (Vol. 549, No. 1, p. 012039). IOP Publishing.
- [6] Karim, M. F. A., Muhammad, M., Jemali, N. J. N., Muchtar, A., & Bahar, A. (2020). Assessing the Dynamics of Urban Growth and Land Use Changes in Jeli Using Geospatial Technique. *J. Trop. Resour. Sustain. Sci*, 8, 28-35.
- [7] Muhammad M. & Latif N.S.A. (2017). *Mathematics for life sciences*. UMK Press
- [8] Sufahani, S., Muhammad, M., & Ismail, Z. (2016). The statistical analysis of the tourist's summary profile and behavior in Kelantan, Malaysia. *International Journal for Research & Development in Technology*,6(3), 54-58.
- [9] Sufahani, S., Muhammad, M., & Ismail, Z. (2016). Analysis of Cross Tabulation through Chi-Squared Test and Pareto Analysis on Malaysian International Tourism Data. *International Journal of Scientific and Research Publication*, 6(11), 68- 70.
- [10] Muhammad, M., Baharuddin K.H.& Hanapi N.F. (2014). Chapter 9: Student Centered Experiential Learning and Skills Development. *Entrepreneurship Education: A Guide for Entrepreneurial Educator*. UMK Press.
- [11] Muhammad, M. & Omar I.C. (2014). Chapter 10: Establishment of Student Enterprise. *Entrepreneurship Education: A Guide for Entrepreneurial Educator*. UMK Press.
- [12] Sufahani, S. F., Ismail, Z., & Muhammad, M. (2013). An analysis of international tourist behavior towards tourism sector in Kelantan. In *Prosiding Seminar Kebangsaan Aplikasi Sains and Matematik*.
- [13] Wannahari, R., Abdullah, N. A., Nordin, M. F. M., & Muhammad, M. (2013). Evaluation of heavy metal in coastal water at Kelantan. *American Journal of Environmental Sciences*, 9(6), 505.
- [14] Ahmad Anwar Ismail, Marinah Muhamad, and Aweng Eh Rak, (2013). Career Opportunities of Local Graduates in the Malaysian Plantation and Commercial Agriculture Sector. *Journal of International Scientific Publication: Educational Alternatives*. 11(1): 94-108
- [15] Marinah, M., & Mohd, H. (2013). Modelling and forecasting on paddy production in Kelantan under the implementation of system of rice intensification (SRI). *Academia Journal of Agricultural Research*, 1(7), 106-113.
- [16] Marinah Muhammad, Ahmad Anwar Ismail and Aweng Eh Rak (2013). Competency of agriculture graduates in Malaysian public Universities. *International Journal of Enhanced Research in Education Development (IJERED)*. Vol. 1, Issue 1: 1-9. ER Publications.
- [17] Abdullah, N.A., Nordin, M.F.M., Wannahari, R., Azwani, M.R. and Marinah, M. (2012). Distribution of Heavy Metals and Escherichia Coli in Sabak Beach and Cahaya Bulan Beach, Kelantan. *International Conference on Agricultural and Food Engineering 2012*: 400 – 407.
- [18] Wannahari, R., Nordin, M.F.M., and Marinah, M. (2012). Reducing free fatty acid in used cooking oil using bagasse adsorbent. *Proceeding of the International Conference on Agricultural and Food Engineering for Life 2012*, Universiti Putra Malaysia: Kuala Lumpur, Malaysia.