Brief CV

Name	Hamzah Abdul hamid	中文名		
Gender	Male	**Title** (Pro./Dr.)	Dr.	
Position （President…）	Senior Lecturer	**Country/ Region**	Malaysia	
University/ Department	Institute of Engineering Mathematics, Universiti Malaysia Perlis			
Personal Website	-			
Research Area	Statistics (categorical data analysis / multivariate data analysis / Simulation study)			

Brief introduction of your research experience:

Regression methods have become an integral component in exploring the relationship between a response variable and one or more explanatory variables. The difference between linear regression model and logistic regression model is that the outcome variable in logistic regression model is categorical.

The Logistic Regression is a powerful regression method to model the relationships between a categorical response variable and one or more predictor variables. The response or outcome variable may have two or more than two categories and these categories can be nominal or ordinal measurement type of data. The binary logistic regression model is used when Y has two categories (such as Alive/Died, Pass/Fail and Churn/No Churn). In situations when Y has more than two nominal categories, the multinomial logistic regression model is employed. In some studies, the response variable may be ordinal, such as severity of illness or performance rating (poor, average, good and excellent). In this kind of situation, the ordinal logistic regression will be more appropriate.

Today, logistic regression is widely used in various research areas such as medical, epidemiology, safety science, psychology, finance, social research, computer security and hydrology. This type of regression is very popular among researchers because it does not require the assumptions of normality, linearity or homoscedasticity of covariates.

With my academic background in Statistics, this area is becoming my area of interest. I will now give specific topics of my research study:

i. In all regression procedures, one of the most important parts is to check whether the model fits the data well or not. Thus, in logistic regression, it is important to study about the goodness of fit test. I am now actively doing a research to seek what goodness of fit test is suitable based on types of covariate data.

ii. Since there are some disadvantages of goodness of fit test in logistic regression, I am now in the midst of doing some research to enhance the performance of existing goodness of fit tests for binary, multinomial and ordinal logistic regression.

iii. Also, it is well known that the distribution of data might give an effect to most statistical procedures. Thus, I am interested to do deep research on how the distribution of data might affect logistic regression modeling, and how to overcome this problem.

Below are my 5 most recent publications:

1. Hamid, H. A., Bee Wah, Y., Xie, X. J., & Seng Huat, O. (2018). Investigating the power of goodness-of-fit tests for multinomial logistic regression. Communications in Statistics-Simulation and Computation, 47(4), 1039-1055.

2. Hamid, H. A., Hassan, A., Wah, Y. B., & Amin, N. A. M. (2018, October). Investigating the power of goodness-of-fit test for multinomial logistic regression using K-Means clustering technique. In AIP Conference Proceedings (Vol. 2013, No. 1, p. 020004). AIP Publishing.

3. Wah, Y. B., Ibrahim, N., Hamid, H. A., Abdul-Rahman, S., & Fong, S. (2018). Feature Selection Methods: Case of Filter and Wrapper Approaches for Maximising Classification Accuracy. Pertanika Journal of Science & Technology, 26(1).

4. Amin, N. A. M., Ismail, M. S., & Hamid, H. A. (2018, October). Modelling extreme temperature in Perlis using block maxima method. In AIP Conference Proceedings (Vol. 2013, No. 1, p. 020010). AIP Publishing.

5. Amin, N. A. M., & Hamid, H. A. (2018, June). Review paper on water quality with relation to extreme value theory. In AIP Conference Proceedings (Vol. 1974, No. 1, p. 040006). AIP Publishing.

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