

ZAKARIYA YAHYA ALGAMAL

MOSUL UNIVERSITY (IRAQ)/ COLLEGE OF COMPUTERS SCIENCES AND
MATHEMATICS/ DEPARTMENT OF STATISTICS AND INFORMATICS

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Tel: 00964-770-1640834 (Iraq)

Objective: Assistant Professor, Statistics

Education

PhD, Mathematic (Statistics), University Technology Malaysia (UTM),
Faculty of Science, Dept. of Mathematical Sciences, 2013- 2016

Thesis Title: **Adaptive Penalized Likelihood Methods in High Dimensional
Generalized Linear Model**

MSc, Statistics, University of Mosul, Dept. of Statistics, April 2004

Thesis Title: **Bayesian Dynamic Hierarchical Estimation with Simulation**

BSc, Statistics, University of Mosul, Dept. of Statistics, July 2001

Academic Experience

Assistant Professor: Department of Statistics and Informatics, Mosul
University, 2012-present.

Lecture: Department of Statistics and Informatics, Mosul University,
2009-2012.

Assistant Lecturer: Department of Statistics and Informatics, Mosul
University, 2006-2009.

Assistant Lecturer: Department of Statistics, Sulaimaniya University,
2004–2006.

Positions Held

Assistant head of the department of statistics and informatics, 2010–2013

Teaching Experience

Statistical Inference

Mathematical Statistics

Data Mining

Theory of Probability

Principle of Statistics

Generalized Linear Model

Linear Algebra

Regression Analysis

Biostatistics

Principle of Operation Research

Population Statistics

Computing Skills

LATEX, EndNote, and Microsoft Office.

Editorial Service

1- Editor, International Journal of Statistical Distributions and Applications, 2015- Present.

2- Editor, Journal of Biomedical Statistics and Informatics, 2016- Present.

Journal Refereeing

- 1- Hacettepe Journal of Mathematics and Statistics (IF).
- 2- Journal of Applied Soft Computing (IF).
- 3- Electronic Journal of Applied Statistical Analysis (Scopus).
- 4- Journal of Teknologi (Scopus).
- 5- Journal of Econometrics and Statistics (Scopus)
- 6- American Journal of Theoretical and Applied Statistics (Google Scholar).
- 7- Science Journal of Applied Mathematics and Statistics (Google Scholar).
- 8- American Journal of Biostatistics (Google Scholar).
- 9- Journal of Computer Science (Google Scholar).
- 10- Iraqi Journal of Statistical Science (Google Scholar).
- 11- Journal of Tanmiat al Rafidain (Google Scholar).

Awards and Honors

- 1- Pro-Chancellor's Award, Universiti Teknologi Malaysia (UTM), 2016.
- 2- Best Student Award (Mathematics), Universiti Teknologi Malaysia (UTM), 2016.
- 3- Best Student Award in Statistics (The first student), University of Mosul, 2001.
- 4- Best Student Award (College of Computer Science and Mathematics), University of Mosul, 2001.

Supervision of Postgraduate Students

PhD

1. Mohammed A. Razaq (2016-to present), Adaptive penalized support vector machine in bioinformatics and cheminformatics, University of Mosul (Co-supervisor: Dr. Waleed Hayani).

MSc

2. Awas Ataa (2016–to present), Comparative Study of Different Shrinkage Methods in Logistic Regression Estimators, University of Mosul.
3. Ahmed M. Aljobory (2016–to present), Variable selection in Poisson regression model using penalized likelihood methods, University of Mosul.

Diploma

4. Mudreka Hussain (2012–2013): Choose the Best Model for Time Series Cross-Sectional Data Application on the Gross Agricultural Product of IRAQ (1990–2010).

Referred Papers

2017

Z. Y. Algamal & M. H. 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, Vol. 28, pp.75–90. (IF=1.833, Q1).

2016

1– **Algamal, Z.**, Lee, M., Abdallah, H., Aziz, M. “High-dimensional QSAR modelling using penalized linear regression model with $L_{1/2}$ -norm”, SAR and QSAR in Environmental Research, Vol.27, pp. 703–719., 2016. (IF=1.833, Q1). Published online. DOI:10.1080/1062936X.2016.1228696.

2– Al-Fakiha, Abdo M., **Algamal, Z.**, Lee, M., Hassan H., Abdallahe, Aziz, M “Quantitative structure–activity relationship model for

prediction study of corrosion inhibition efficiency using two-stage sparse multiple linear regression”, *Journal of Chemometrics*, Vol.30, pp. 361–368., 2016. (IF=1.500, Q1). Published online. DOI: 10.1002/cem.2800.

3– Algamal, Z., Lee, M., Abdallah, H. “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*, Vol.30, pp. 50–57., 2016. (IF=1.500, Q1). Published online. DOI: 10.1002/cem.2766.

2015

4– Algamal, Z., Lee, M., Aziz, M., Abdallah, H. “High-dimensional QSAR prediction of anticancer potency of imidazo[4,5-b]pyridine derivatives using adjusted adaptive LASSO”, *Journal of Chemometrics*, Vol.29, pp. 547–556., 2015. (IF=1.500, Q1). DOI: 10.1002/cem.2741.

5– Algamal, Z., Lee, M. " Penalized logistic regression with the adaptive LASSO for gene selection in high-dimensional cancer classification”, *Expert Systems with Applications*, Vol.42, pp. 9326–9332, 2015. (IF=2.420, Q1). DOI: 10.1016/j.eswa.2015.08.016.

6– Algamal, Z., Lee, M. " Regularized logistic regression with adjusted adaptive elastic net for gene selection in high dimensional cancer classification”, *Computers in Biology and Medicine*, Vol.67, pp. 136–145, 2015. (IF=1.420, Q3). DOI: 10.1016/j.combiomed.2015.10.008.

- 7- Al-Fakih, A., Aziz, M., Abdallah, H., **Algamal, Z.**, Lee, M., Maarof, H. “High Dimensional QSAR Study of MildSteel Corrosion Inhibition in acidic medium by Furan Derivatives”, International Journal of Electrochemical Science, Vol.10, pp. 3568–3583, 2015. (IF=1.500, Q4).
- 8- **Algamal, Z.**, Lee, M. “Penalized Poisson Regression Model using adaptive modified Elastic Net Penalty”, Electronic Journal of Applied Statistical Analysis, Vol. 8, No. 2, pp. 236–245, 2015. (Scopus). DOI: 10.1285/i20705948v8n2p236.
- 9- **Algamal, Z.**, Lee, M. “Applying Penalized Binary Logistic Regression with Correlation Based Elastic Net for Variables Selection”, Journal of Modern Applied Statistical Methods, Vol. 14, No. 1, pp. 168–179, 2015. (Scopus).
- 10-**Algamal, Z.**, Lee, M. “High Dimensional Logistic Regression Model using Adjusted Elastic Net Penalty”, Pakistan Journal of Statistics and Operation Research, Vol. 11, No. 4, pp. 667–676, 2015. (Scopus).
- 11- **Algamal, Z.**, Lee, M. “Adjusted Adaptive LASSO in High-dimensional Poisson Regression Model”, Modern Applied Science, Vol.9, No.4, pp.170–177, 2015. (Scopus).
- 12- **Algamal, Z.**, “Using Maximum Likelihood Ratio Test to Discriminate between the Inverse Gaussian and Gamma Distributions”, International Journal of Statistical Distributions, Vol.1, No.1, pp.27–32, 2015.

2014

- 13- **Algamal, Z.**, Thabet , H., “Using Genetic Algorithm in Outlier Detection for Regression Model”, (To Appear in Journal of Education and Science).

2013

- 14- **Algamal, Z.**, “Jackknife after Bootstrap Robust regression” Arab Journal of Statistical Science, No.4, pp.61-73, 2013.

2012

- 15- **Algamal, Z.**, “Support Vector Machine Procedure as a Data Mining Multi-class Classifier”, Iraqi Journal of Statistical Science, Vol.12, No.22, pp.26-40, 2012.
- 16- **Algamal, Z.**, “Diagnostic in Poisson Regression Models”, Electronic Journal of Applied Statistical Analysis, Vol.5, No.2, pp.178-186. 2012. (Scopus).
- 17- **Algamal, Z.**, Saber, O., “Prediction Comparison Using the Generalized Regression Neural Networks with Neural Networks Approach and Regression Analysis” Iraqi Journal of Statistical Science, Vol.12, No.22, pp.234-245, 2012.
- 18- **Algamal, Z.**, Rasheed, Kh., “Re-sampling Techniques in Count Data Regression Models”, Iraqi Journal of Statistical Science, Vol.12, No.22, pp.15-25, 2012.

- 19- **Algamal, Z.**, “Bootstrapping Pseudo- R^2 Measures for Binary Response Variable Model”, Journal of Economics Science, Vol.8, No. 31, pp.220–230, 2012.
- 20- **Algamal, Z.**, “Selecting Model in Fixed and Random Panel Data Models”, Iraqi Journal of Statistical Science, Vol.12, No.21, pp.266–285, 2012.
- 21- **Algamal, Z.**, Abed, I. and Anaze, M., “Using Cross-Validation Procedure in Gamma Regression Model”, Journal of Tanmiat al Rafidain / Mostanseria University).

2011

- 22- **Algamal, Z.**, Hanun, O. “Multiple Beta Regression Model with Application”, Iraqi Journal of Statistical Science, Vol.11, No.19, pp.219–232, 2011.
- 23- **Algamal, Z.**, Rasheed, Kh., “Paired Bootstrapping procedure in Gamma Regression Model using R”, Journal of Basrah Research (Sciences), Vol.37, No.4C, pp.465–472, 2011
- 24- **Algamal, Z.**, Anas, H. and Abd, F., “Using Some Information Criterion Determining the Best Multiplicative Seasonal Model”, Iraqi Journal of Statistical Science, Vol.11, No.19, pp.249–266, 2011.

2010

- 25- **Algamal, Z.**, Rasheed, Kh., “Re-Sampling in Linear Regression Model Using Jackknife and Bootstrap”, Iraqi Journal of Statistical Science, Vol.10, No.18, pp.59-73, 2010.

2009

- 26- **Algamal, Z.**, “The Prediction of the Maternal and Fetal Blood Lead Level via Generalized Linear Model”, Iraqi Journal of Statistical Science, Vol.9, No.15, pp.1-16, 2009.
- 27- **Algamal, Z.**, “Multiple Regression Model Selection by Information Criteria”, Iraqi Journal of Statistical Science, Vol.9, No.16, pp.1-16, 2009.

2008

- 28- **Algamal, Z.**, “On the discriminating between Inverse Gaussian and Lognormal Distribution”, Iraqi Journal of Statistical Science, Vol.8, No.13, pp.27-52, 2008.
- 29- **Algamal, Z.**, “Exponentiated Exponential Distribution as a Failure Time Distribution”, Iraqi Journal of Statistical Science, Vol.8, No.14, pp.63-75, 2008.

2006

- 30- **Algamal, Z.**, “Using Maximum Likelihood Method and Kaplan – Meier Method to Estimate Reliability Function: An

Application in Babylon Tires Factory”, Journal of Tanmiat al Rafidain, Vol.82, No.28,2006, pp.9-20, 2006.

2005

- 31- **Algamal, Z.**, “Bayesian dynamic hierarchical estimation with simulation”, Journal of Tanmiat al Rafidain, Vol.27, No.79, 2005.
- 32- **Algamal, Z.**, “Using some of Non-Parametric Methods For Estimating the Reliability Function (Comparison Study)”, Journal of Tanmiat al Rafidain, No.58, pp.38-51, 2005.

Conference Papers

- 1- **“On the Discrimination between the Inverse Gaussian and Weibull Distributions”** The first International conference of Mathematical Statistics-University of Aleppo-Faculty of Science-April 22-24/4/2008.Aleppo-Syria.
- 2- **“Determination the Size of the Stratified Samples depending on Cost and Strata Sample Sizes factors in Population”** The Second Scientific Conference of Administration and Economic College – University of Qadisya, 2011.
- 3- **“Paired bootstrapping procedure in Gamma Regression Model using R”**, The International Conference of Mathematics and its Applications (ICMA), Mathematics Dept.- College of Education-University of Basrah, 2011.

4- “**On the Discrimination between the Inverse Gaussian and Gamma Distributions**”, the Third Conference of the Computer Science and Mathematics, College of Computer Science and Mathematics - University of Al- Qadisyah, 2012.

5- “**Using Cross-Validation Procedure in Gamma Regression Model**”, The 12th Conference of the Computer Science and Mathematics, College of Administration and Economic College - Mostanseria University, 2012.

6- “**Adjusted Grouping Effect of Adaptive LASSO in Poisson Regression Model**”, The 4th International Conference on Computer Science and Computational Mathematics (ICCSCM), Lankawi, Malaysia 2015.

Presentation and Talks

- 1- Discrimination between Inverse Gaussian and Gamma Distributions
- 2- Data Mining from Statistical Review
- 3- Data Mining and Statistical Applications
- 4- Bootstrapping Procedures in Statistics
- 5- Support Vector Machine as Statistical Classification Procedure
- 6- High-dimensional data Challenges in Classically Statistical Methods

Courses Attended

- 1- "**Advanced course in Translation**", Translation Dept.- Art College- Mosul University, 2001 (Six Months).

Professional Memberships

- 1-Iraqi Statistical Society
- 2-Iraqi Translation Society

Program Skills

Extensive knowledge of **R**, **SPSS**, **Minitab**, **Matlab**, **Stata** statistical programs.

Language Skills

A very good knowledge in English (Writing and Speaking)
A fluent knowledge in Arabic (Writing and Speaking)

Other Skills

Knowledge of research methodologies
Data and information collection
Writing and presenting reports