Curriculum Vitae

Personal Information

Name: Mehrdad Niaparast

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Address: Department of Statistics, Razi University, Kermanshah, Iran

Education

Ph.D. in Statistics, Magdeburg University, Germany
Thesis: Optimal Designs for Mixed Effects Poisson Regression Models

M.Sc. in Statistics, Shahid Chamran University, Ahvaz, Iran
Thesis: Generalized Distribution and its Application in Economics

B.Sc. in Statistics, Shiraz University, Shiraz, Iran
Project: Robustness in Regression Models

Research Work

PhD Thesis: Optimal Designs for Mixed Effects Poisson Regression Models

MSc Thesis: Generalized Distribution and its Application in Economics

BSc Project: Robustness in Regression Models

Journal Papers

- G.Tarmast, A.Fakharzadeh, M.Niaparast, "Best Generalized Beta Distribution for Familly Incomes Data and Calculating Gini Coefficient Khoozestan Province", Research Bulletin of Isfahan University Science, vol.16, No.1, 2, p.79-95, 2002.
- Niaparast M., “On Optimal Design for a Poisson regression Model with Random Intercept”, Statistics and Probability Letters 79 (2009) 741-747.
- M. Niaparast, Rainer Schwabe, “Optimal design for quasi-likelihood estimation in Poisson regression with random coefficients”, Journal of Statistical Planning and Inference, vol. 143, (2013) 296-306.
- Mehr Mansour S., Niaparast M., “Bayesian D-optimal design for Poisson regression model with random effect”, Journal of Statistical Sciences vol.8 (2014) 207-222.
- Dariush Naderi, Mehrdad Niaparast and Akram Zangenehmehr, “D-optimal Designs for Multiple Poisson Regression Model with Random Coefficients”, Asian Research Journal of Mathematics, vol.9(2018), 1-11.

- Mehr Mansour S., Niaparast M., “Efficiency of D-Optimal Designs for Quasi-Likelihood Estimation in Poisson Regression Model with Random effects”, Hacettepe Journal of Mathematics and Statistics, vol.47(2018), 463-470.
- Mehr Mansour S., Niaparast M., “The effect of small sample on optimal designs for logistic regression models”, Communications in Statistics - Theory and Methods, vol 48(2019),2893-2903.
- Mehr Mansour S., Niaparast M.,” Optimal designs for small Poisson regression experiments using second-order asymptotic”, Communications for Statistical Applications and Methods, vol.26(2019), 527-538.
- Shahbazi F., Eslampanah Z. and Niaparast M., “Prevalence of symptoms and medication use among female medical students and pharmacy clients with premenstrual syndrome: a cross-sectional study in Iran”, Journal of Pharmacy Practice and Research, vol. 50(2020), 1-6.
- Heidari A., Niaparast M. , “Comparison of classic regression methods with neural network and support vector machine in classifying groundwater resources”, Andishe Amari, vol. 2(2020), 15-23.
- Karami T., Izadi M. Niaparast M., “Comparison of logistic regression with some machine learning methods in classifying data”, Andishe Amari, vol 1(2021) 47-59.
- Jafari H., Shohaimi S., Salari N., Kiaei A.A., Najafi F., Khazaei S., Niaparast M., Abdollahi A., Mohammadi M., "A full pipeline of diagnosis and prognosis the risk of chronic diseases using deep learning and Shapley values: The Ravansar county anthropometric cohort study”, PLoS One, vol. 17(2022).
- Esmaeili L. , Niaparast M. , “New compounding life time distribution with applications to real data”, Int. J. of Modeling, Simulation & Scientific Comp, vol. 13(2022), 18-34.
- Ahmadi Z., Niaparast M., Heidari A. “A- and E-Optimal Designs for Statistical Models in Pharmacokinetic Studies”. Andishe Amari, vol. 27(2022), 93-99.
- Niaparast M. Mehr Mansour S., Schwabe R., “V-optimality of designs in random effects Poisson regression models”, METRIKA, vol. 86(2023), 879-897.
- Esmaeili L. , Niaparast M., “Approximate MLEs for the location and scale parameters of the Poisson-half-logistic distribution”, Pakistan Journal of Statistics and Operation Research, vol. 19(2023), 15-26.
- Ghorbani S, Niaparast M., “A New Ridge Parameter Estimator in Poisson Regression with Correlated Predictors: Optimal Design Approach”, Thailand Statistician, vol. 21(2023), 767-784.
- Niaparast M. Mehr Mansour S., Zangenehmehr A.,” E-optimal designs for Poisson regression models with random coefficients”, Journal of Statistical Modelling: Theory and Applications, vol. 4(2023), 147-156.
- Allami, M., & Niaparast, M., “Optimal knots for smoothing splines and adaptive smoothing splines in generalized linear models: Design approach”, Communications in Statistics - Theory and Methods, vol. 54(2024), 3672–3691.

Conference Papers

- M.Niaparast, A.Fakharzadeh,"Maximum Likelihood Estimation of the Parameters of the Statistical Distribution by Danhill Simplex Method ", the First Conference of Optimization & its Applications, Ferdosi University, Mashhad, Iran, November 1998.
- M.Niaparast,"Using Downhill Simplex Method in Estimation of Generalized Distribution Parameters", 6th International Statistics Conference, Tarbiat Modarres University, Tehran, Iran, August 2002.
- M. Niaparast , “On Estimation of Parameters of Generalized Beta Distribution”, International Conference on the Future of Statistical Theory, Practice and Education, Indian School of Business, Hyderabad, India, December 29, 2004-January 1, 2005.
- M. Niaparast, “On the Information Matrix for a Poisson Regression Model with Random Intercept”, 8th German Open Conference on Probability and Statistics, Aachen, Germany, 4-7 March 2008.
- M. Niaparast, “On the Locally D-optimality for the Poisson Regression Model with Random Block Effect”, Proceeding of ENBIS9 Conference, Gothenburg, Sweden, 20-24 September 2009.
- M. Niaparast, “On D-efficiency for a Poisson regression model with random intercept”, International conference of Prague Stochastics 2010, Prague, Czech Republic, August 30th to September 3th , 2010.
- M. Niaparast,” Optimal Design for A Poisson regression Model with Random Slope”, 11th Iranian Statistical Conference, University of Science and Technology, Tehran, Iran, 28-30 August 2012.
- Zangenehmehr A., Niaparast M. and Naderi D., “A-optimal designs for Poisson regression model with random coefficients”, 12th Iranian Statistical Conference, Razi University, Kermanshah, Iran, 25-27 August 2014.
- Mehr Mansour S., Niaparast M.,”Bayesian D-optimal Design for Poisson Regression Model with Random Intercept”, 12th Iranian Statistical Conference, Razi University, Kermanshah, Iran, , 25-27 August 2014.
- Naderi D., Niaparast M. and Zangenehmehr A., “D-optimal designs for double Poisson regression model with random coefficients”, 12th Iranian Statistical Conference, Razi University, Kermanshah, Iran, 25-27 August 2014.
- Ghorbani S. and Niaparast M.,“Optimal Design for estimation in Poisson Ridge Regression”, 13th Iranian Statistical Conference, Shahid Bahonar University of Kerman, Kerman, Iran, 23-25 August 2016.
- Esmaeili L. and Niaparast M., “A New Compounding Family of Distributions: The General Power Series Distributions”, 14th Iranian Statistical Conference, Shahrood University of Technology, Shahrood, Iran, 25-27 August 2018.
- Heidari, A. and Niaparast M., “Comparison between regression methods and support vector machine in geological data classification”, Second Mathematical science, Ahvaz, Iran, 26 December, 2018.

Supervision

MSc Projects(selected): Optimal experimental designs in toxicity studies; Neural networks for classification; Support vector machine for classification; Optimal designs for Poisson ridge regression; A review on classical and machine learning method in data classification and comparing them in a case study

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PhD Projects: Optimal designs for small sample experiments in GLMs;
On some properties of power series compound distribution.

Skills

- Statistical Software: R, SPSS, SAS
- Programming: Python

Teaching Experience

Courses taught: Probability Theory, Mathematical Statistics, Regression Analysis, Experimental Design, Statistical Inference, Machine Learning (Introductory), Generalized Linear Models.

Research Interests

• Linear and nonlinear models
• Optimal design of experiments
• Data mining and machine learning methods