Curriculum Vitae

Ali Satty Ali Hassan
Assistant Professor
Applied statistics

Nationality: Sudanese
Date of birth: 02/02/1981
Sex: Male
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Areas of expertise

- Applied statistics
- Clinical trials research
- Epidemiology
- Incomplete data analysis
- Public health
- Biostatistics
- Academic research
- Teaching programmes

Key skills and competencies

Management

- Supervisory skills
- Financial regulations
- Decision making
- Having a thorough understanding of statistical analysis disciplines

Personal
- Able to work well under pressure, priorities workload and work to deadlines.
- Can work on own initiative.
- Excellent written and verbal skills.
- Highly motivated with a positive attitude.
- Reliable and punctual.
- Having a high level of intellectual curiosity.
- Active listening
- Problem sensitivity
- Communication skills
- Attention to detail
- Influencing skills
- Able to work individually or in a team

Education

2013   Doctor of Philosophy in Statistics, School of Mathematics, Statistics and Computer Science, University of Kwazulu-Natal, South Africa.
Dissertation title: Comparative approaches to handling missing data, with particular focus on multiple imputation for both cross-sectional and longitudinal models

2009   Masters of Science in Financial Statistics, Department of Statistics and Econometrics, University of Saint-Pietersburg for Economics and Finance, Russia.

2004   Bachelor of Science in Applied Statistics, first class, Department of statistics, Alneelain University, Sudan.

Research Interests

- Methodological issues in missing data analysis.
- Statistical computing and simulation
- Application of statistical methodologies.
- Survey, clinical trials, epidemiology and public health data analysis.

Research Experience

- Review and critique published articles related to statistical data analysis.
- Research Consultant, Department of Applied Statistics & Research Methods, University of Kwazulu-Natal and Elneelain University
- Assist with research planning, data management and analysis, and write-up.
- Consult on numerous doctoral dissertations.
- Answer questions about SAS, SPSS, LISREL, R, Minitab, Mat-lab and other software.

Technical skills

- Statistics: Missing data analysis, parametric and non-parametric methods, likelihood and non-likelihood methods, categorical data analysis, linear and non-linear models.
- Research methodology: Incomplete data analysis methods, longitudinal analysis, survey research, measurement issues; some experience with analysis of epidemiology, biostatistics and public health data.
- Statistical software: Extensive experience with SAS, SPSS, R and LISREL; some experience with SUDAAN, HLM, and S-PLUS. Additional software: MySQL, Excel, Word, PowerPoint, Photoshop and Latex.

Publications

- **Satty, A.**, Salih, M., Abdalla, F.A. et al. Statistical Analysis of Factors Associated with Diarrhea in Yemeni Children under Five: Insights from the 2022–2023 Multiple Indicator Cluster Survey. J Epidemiol Glob Health 14, 1043–1051 (2024). https://doi.org/10.1007/s44197-024-00253-1
- Gumma EAE, Hassaballa AA, Birkea FMO, Adam AMA, **Satty A**, Abdel-Salam EAB, Yousif EA, and Nouh MI (2024). Exact solutions of the nonlinear space-time fractional Schamel equation. International Journal of Advanced and Applied Sciences, 11(8): 89-97
- Abaker A. Hassaballa, Fathea M. O. Birkea, Ahmed M. A. Adam, **Ali Satty**, Elzain A. E. Gumma, Emad A-B. Abdel-Salam, Eltayeb A. Yousif, Mohamed I. Nouh, Multiple and Singular Soliton Solutions for Space–Time Fractional Coupled Modified Korteweg–De Vries Equations, Int. J. Anal. Appl., 22 (2024), 68.
- Zakariya M. S. Mohammed, Faroug A. Abdalla, Mohyaldein Salih, Ashraf F. A. Mahmoud, **Ali Satty** (2024). A comprehensive bibleometric analysis of churn prediction research: An essay on

- trends, key contributors and global participation in the field. Sci-Int.(Lahore), 36(4),219-228.
- Hassaballa A, Salih M, Khamis GSM, Gumma E, Adam AMA and **Satty A** (2024) Analytical
- solutions of the space–time fractional Kadomtsev–Petviashvili equation using the (G'/G)-expansion method. Front. Appl. Math. Stat. 10:1379937. doi: 10.3389/fams.2024.1379937
- **Satty, A.,** Salih, M.M.Y., Hassaballa, A.A., Gumma, E.A.E., Abdallah, A. and Mohamed Khamis, G.S. 2024. (2024). Comparative Analysis of Machine Learning Algorithms for Investigating Myocardial Infarction Complications. Engineering, Technology & Applied Science Research. 14, DOI:https://doi.org/10.48084/etasr.6691.
- A. Dawit, **A. Satty** and T. Zewoter (2020). Understanding the correlates of under-Five mortality in sudan using survey survival models. Asian journal of research in infectious diseases, 5(1), 55-68. https://doi.org/10.9734/ajrid/2020/v5i130160.
- Babikir, A., **Satty, A**. and Mwambi, H. (2018) 'Determinants of out-ofpocket health expenditure and their welfare implications in a South African context', Journal of economic and financial sciences 11(1), a177. http://dx.doi. org/10.4102/jef.v11i1.177.
- **A. Satty**, H. Mwambi and G. Molenerghs (2017). Chapter in book. D.-G. Chen and J.D. Chen (eds.), Monte-Carlo Simulation-Based Statistical Modeling, ICSA Book Series in Statistics, DOI 10.1007/978-981-10-3307-0_10. Springer Nature Singapore Pte Ltd.
- **A. Satty,** Mwambi, H. And Molenberghs, G. (2015). Different methods for handling incomplete longitudinal binary outcome due to missing at random dropout. *Statistical Methodology*, 24, 12–27.
- **A. Satty** (2015). A comparative analysis of likelihood based and multiple imputation methods for incomplete longitudinal clinical trials data with ignorable missingness. *Journal of Statistics Applications and Probability, 7, 1-10.*
- **Ali Satty** (2015) An Analysis of Selection Models For Non-ignorable Dropout: An Application to Multi-centre Trial Data. *Journal of Biometrics and Biostatistics* 6: 246. doi:10.4172/2155-6180.1000246
- Hythem, H., Ahmed A. Talab., **Satty, A.** and Samani A. Talab. (2015). Data mining methodologies to study student's academic performance using the C4.5 algorithm. *International Journal on Computational Sciences and Applications (IJCSA),* 5, 59 -68.
- **A. Satty** (2014). A simulation study comparing two methods of handling missing covariate values when fitting a Cox proportional-hazard regression model. *STATISTIKA*, 94, 71-79.
- **A. Satty** and H. Mwambi (2014). A review of methods for handling missing data in the form of dropouts in longitudinal clinical trials. *Bulletin of Pharmaceutical and Medical Sciences (BOPAMS), 2, 2310-2331.*
- **A. Satty** and H. Mwambi (2013). Selection and pattern mixture models for modelling longitudinal data with dropout: An application study. *Statistics and Operation Research Transaction (SORT) Journal*, 37, 131-152.
- **A. Satty** and A. B. A. Babikir (2013). Handling dropouts in longitudinal clinical trials data: Likelihood-based analysis versus inverse probability weighting. *Arabic Gulf of Scientific Research*, 31, 154-166.
- **A. Satty** and H. Mwambi (2012). Imputation methods for estimating regression parameters under a monotone missing covariate pattern: A comparative analysis. *South African Statistical Journal*, 46, 327-356.

Conference presentations

 A. Satty (2014). A review of methods for handling missing data in the form of dropout in longitudinal clinical trials. Paper presented at International Conference on Mathematical, Computational and Statistical Sciences and Engineering, October, 12 – 13. Japan: Osaka.

 A. Satty (2011). A comparative analysis of likelihood based and multiple imputation

methods for incomplete longitudinal data with ignorable missingness. Paper presented at the analytical methods in statistical analysis AMISTAT conference. Prague: Czech Republic, NC.

Employment

2014: Head, Department of Statistics and Actuarial Sciences, Alneelain University, Khartoum, Sudan.

2013: Post-doctoral Researcher, School of Mathematics, Statistics and Computer Science, University of KwaZulu-Natal.

2009: Lecturer, School of Statistics and Actuarial Science, Elneelain University, Sudan.

2004: Teaching Assistant, School of Statistics and Actuarial Science, Elneelain University, Sudan.

References

1. Henry Mwambi, Professor
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