Curriculum vitae: Caston Sigauke

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Educational Qualifications

Jan 2010 - April 2014	PhD (Statistics) University of the Free State, South Africa https://scholar.ufs.ac.za/handle/11660/1569 Title: Modelling Electricity Demand in South Africa Promoter: Dr Delson Chikobvu
Aug 1997 - May 2000	MSc (Operations Research) National University of Science and Technology, Zimbabwe

Professional Qualifications

Jan 1990 - Dec 1992	Institute of Chartered Secretaries and Administrators in Zimbabwe (ICSAZ) Intermediate Certificate, Zimbabwe

Professional Experience

Oct 2015 - Present	Senior lecturer, Department of Statistics, University of Venda
Jun 2018 - May 2021	Board Member of the Institute of Certificated and Chartered Statisticians of South Africa (ICCSSA) https://www.iccssa.org.za/board-members/
Oct 2015 - 2018	Honorary Research Associate, School of Statistics and Actuarial Science University of the Witwatersrand, South Africa
Sep 2013 -Sep 2015	Lecturer, School of Statistics and Actuarial Science, University of the Witwatersrand, South Africa
May 2009 - Aug 2013	Lecturer, Department of Statistics and Operations Research, University of Limpopo, South Africa
Apr 2002 - Apr 2009	Lecturer, Department of Applied Mathematics, National University of Science and Technology, Zimbabwe

Others

2019-2024	South African National Research Foundation C3 Rated Researcher.
Chartered Statistician 2013-Present	Member (13ChM012) of ICCSSA `https://www.iccssa.org.za/membership/membershiplist/`

Honours and Awards

2019	Awarded the University of Venda Capacity Development Grant. Value of Award R85 106.38.
2019	Awarded the World Bank Trust Fund for Statistical Capacity Building (WB TFSCB) to participate in the 62nd ISI World Statistics Congress in Kuala Lumpur, Malaysia.
2019	Awarded a University of Venda research grant in the niche area: Sustainable Rural and Regional Development. Value of Award R147,754.00.
2018	Knowledge Share award: SASA/NRF Academic Statistics in Crisis. Value of Award R20,000.00.
2017	DST-NRF Centre of Excellence-Mathematical and Statistical Sciences bursary/fellowship (for an MSc student) valued at R 80,000.00.
2016	Knowledge Share award: SASA/NRF Academic Statistics in Crisis. Value of Award R15,000.00.
2016	Awarded the DST-NRF Centre of Excellence in Mathematical and Statistical Sciences (CoE-MaSS) for funding a Workshop on Quantile Regression. Value of award R30,000.00.
2015-2017	Awarded the National Research Foundation (NRF) grant for Competitive Support for Unrated Researchers (CSUR). Project title "Probabilistic Load Forecasting". Value of award R688,500.00.
2015	Awarded the Faculty of Science Research start-up grant (Faculty of Science, University of Witwatersrand). Value of award R30,000.00.
2014	Awarded the Faculty of Science Research start-up grant (Faculty of Science, University of Witwatersrand). Value of award R30,000.00.
2014	Awarded the Dean's Research grant (Faculty of Science, University of Witwatersrand). Value of award R25,000.00.
2014	Vice Chancellor's research support (University of Witwatersrand). Value of award R15,000.00.
2012	Excellence award for being the best researcher in the School of Mathematical and Computer Sciences at the University of Limpopo, South Africa in 2012. Value of award R10, 000.00.
2011	Awarded the Knowledge Interchange Collaboration (KIC) travel grant by National Research Foundation (NRF) of South Africa to attend IFORS conference in Melbourne, Australia. Value of award R15,000.00.

Membership of Associations

- International Institute of Forecasters (IIF). Member ID: 7178.

- International Statistical Institute. Member ID: 16577.
- Operations Research Society of South Africa (ORSSA). Member ID 511.
- South African Statistical Association (SASA).

- I have peer reviewed more than 25 journal articles from the following journals: Renewable & Sustainable Energy Reviews, South African Statistical Journal, International Journal of Electrical Power and Energy Systems, Journal of Energy in Southern Africa, Physica A: Statistical Mechanics and its Applications, Journal of Applied Statistics, Journal for Studies in Economics and Econometrics, Economics, Management, and Financial Markets, Journal of Probability and Statistics, Journal of Disaster Risk Studies, South African Geographical Journal, Urban Water Journal, South African Journal of Science, Journal of Natural Resources Policy Research, ORiON Journal and Tourism Management,International Journal of System Assurance Engineering and Management.

- Elsevier Reviewer recognition
`https://www.reviewerrecognition.elsevier.com/#/profile/59963ec4-3a56-4427-8e12-c11d06d4e912`

Research

- My current research is on probabilistic electricity demand forecasting and solar energy modelling.
- My research interests are in: Forecasting and time series, Statistics of extremes, Statistical learning and modelling, Exploratory data analysis.

Postgraduate Supervision

I have supervised students' dissertations at both undergraduate and post-graduate levels in statistics and operations research areas. I have supervised more than 15 honours projects. I currently supervise 3 PhD students and 4 Masters students. I have previously supervised 18 Masters students of which 10 are by a research dissertation and 8 by course work and a research report.

MSc - Completed

MSc by research dissertation

1. Modelling the extremal dependence structure of equity returns: A survey of four African equity markets. Samuel Taiwo Abayomi Richard (University of Venda, South Africa), 2019. `http://univendspace.univen.ac.za/handle/11602/1356?show=full`

2. Forecasting foreign direct investment in South Africa using nonparametric quantile regression models, by Nyawedzeni Netshivhazwaulu (University of Venda, South Africa), 2019. `http://univendspace.univen.ac.za/handle/11602/1297?show=full`

3. Probabilistic solar power forecasting: An application to South African data. Phathutshedzo Mpfumali (University of Venda, South Africa), 2019. Was on NRF project on Probabilistic Load Forecasting (2015-2017). `http://univendspace.univen.ac.za/handle/11602/1349?show=full`

4. Discrete survival models with flexible link functions for age at first marriage among women in Swaziland. Thambeleni Portia Nevhungoni, 2019. http://univendspace.univen.ac.za/handle/11602/1346?show=full

5. Short term load forecasting using quantile regression with an application to the unit commitment problem, by Moshoko Emily Lebotsa (University of Venda, South Africa), 2018. Was on NRF project on Probabilistic Load Forecasting (2015-2017). http://univendspace.univen.ac.za/handle/11602/1208?show=full

6. Medium term load forecasting using generalized additive models with tensor product interactions. Thakhani Ravele (University of Venda, South Africa), 2018. http://univendspace.univen.ac.za/handle/11602/1165?show=full

7. Stochastic modelling of daily peak electricity demand using extreme value theory Jerry Boano Danquah (University of Venda, South Africa), 2018. Was on NRF project on Probabilistic Load Forecasting (2015-2017). http://univendspace.univen.ac.za/handle/11602/1209?show=full

8. Modelling temperature in South Africa using extreme value theory by Murendeni Maurel Nemukula (University of the Witwatersrand, Johannesburg, South Africa), 2017. Was on the NRF project on Probabilistic Load Forecasting (2015-2017). http://wiredspace.wits.ac.za/handle/10539/24840

9. Modelling annual flood heights of the Limpopo river at Beitbridge border post using extreme value theory, by Robert Kajambeu (University of Venda, South Africa), 2017. http://univendspace.univen.ac.za/handle/11602/676?show=full

10. Modelling short term probabilistic electricity demand in South Africa by Molete Mokhele (University of the Witwatersrand, Johannesburg, South Africa). Was on the NRF project on Probabilistic Load Forecasting, 2016. http://wiredspace.wits.ac.za/handle/10539/21021

11. Modelling Volatility and Financial Market Risks of Shares on the Johannesburg Stock Exchange by Monnye Rhoda Makhwiting (University of Limpopo, South Africa), 2014. http://ulspace.ul.ac.za/handle/10386/1389

MSc by coursework and research report

1. Short-term hourly load forecasting in South Africa using neural networks by Elvis Tshiani Ilunga (University of the Witwatersrand, Johannesburg, South Africa), 2018. http://wiredspace.wits.ac.za/xmlui/handle/10539/25629

2. Stochastic programming model for commercial banks liquidity management by Wilbert Chagwiza 2009 (NUST, Zimbabwe).

3. Minimizing the Beam on time in intensity modulated radiation therapy by Tafadzwa T. Batidzirai 2007 (NUST, Zimbabwe).

4. Multiple jobs scheduling on identical parallel machines: A tabu search approach to minimize total tardiness by Brian T. Mudimu 2007 (NUST, Zimbabwe).

5. Investigating the operations in the supply and distribution of water at Bulawayo City Council by Prudence S. Moyo 2007 (NUST, Zimbabwe).

6. A study of the possibility of improving major locomotive service operations at National railways of Zimbabwe Mechanical Workshops Bulawayo by Jacob Matangira 2005 (NUST, Zimbabwe).

7. Synchronizing the finished inventory to the raw material inventory for a production system operating under a fixed quantity periodic delivery system policy to produce an optimal batch size by Mirirai Mukamuri 2005 (NUST, Zimbabwe).

8. Optimization of network topologies for service providers in the telecommunications market: An application of some neighbourhood search techniques by Edinah Magorokosho 2004 (NUST, Zimbabwe).

Examination of Masters' dissertations and PhD theses

I have examined more than 10 Masters dissertations and 4 PhD theses.

PhD theses examined

- 2019: On the use of the bootstrap methods in uncovering the sampling distribution of threshold value estimates. School of Statistics and Actuarial Science, University of the Witwatersrand, Johannesburg, South Africa.
- 2017: Title of thesis: Inspection and replacement models for reliability and maintenance: Filling in gaps. School of Statistics and Actuarial Science, University of the Witwatersrand, Johannesburg, South Africa.
- 2016: Title of thesis: The relationship between electricity supply and economic growth in South Africa. Department of Economics, Nelson Mandela Metropolitan University, South Africa.
- 2014: Contributions to Accelerated Reliability Testing. School of Statistics and Actuarial Science, University of Witwatersrand, Johannesburg, South Africa.

Consulting

- 2012–2013 Danish Energy Management A/S: Part-time Energy efficiency monitoring expert and statistical consultant working on the project for monitoring energy efficiency and carbon dioxide emissions for the Department of Energy, South Africa. 1 January 2012 to 31 December 2013. Duties: Identify review priorities; establish data gaps; establish data collection system; methodology establishment and data gathering; refinement of methodology, collection, data handling and reporting.
- 2009–2010 Energy statistical consultant, Energy Demand Forecasting Project for Eskom, South Africa (1-07-2009 to 31-03-2010). Duties: Our task was to develop short term forecasting models for hourly, daily and monthly electricity demand. The project was done in collaboration with the Nelson Mandela Metropolitan University.

Seminars, Workshops and Invited Talks Given

2016 Research Seminar at Eskom on transmission and distribution network demand forecasting.

2016 Research visit to Eskom National Control Centre in Johannesburg, South Africa.

2016 ICCSSA/ORSSA/SASA breakfast seminar at Council for Scientific and Industrial Research (CSIR), Pretoria. "Short term hourly load forecasting during the peak period using quantile regression with an application to the unit commitment problem".

2014 Public seminar "Winter peak electricity demand modelling in South Africa". University of the Witwatersrand.

2013 Data validation workshop for the National Development Plan of South Africa, Vision 2030 in Pretoria.

2010 Eskom workshop on Energy, Economics Statistics and Datamining: Heritage Conference Centre, South Africa.

2009 Workshop on Forecasting and Modelling in Energy and Finance: Department of Statistics and Centre for Energy Research, Nelson Mandela Metropolitan University, Port Elizabeth in partnership with Eskom, South Africa. Title of paper presented: "A GARCH modelling approach to hourly electricity load forecasting".

Publications

PhD thesis

1. Sigauke, C. (2014). Modelling Electricity Demand in South Africa. PhD thesis. University of the Free State, South Africa. `https://scholar.ufs.ac.za/handle/11660/1569`

Refereed research papers

1. Mokilane, P., Debba, P., Yadavalli, V.S.S. and Sigauke, C. (2019). Bayesian Structural Time Series Approach to a Long-Term Electricity Demand Forecasting. Applied Mathematics and Information Sciences An International Journal, vol. 13, no. 2, pp. 1-11.

2. Sigauke, C. and Nemukula, M.M. (2018). Modelling extreme peak electricity demand during a heatwave period: a case study, Energy Systems, pp. 1-23. `https://doi.org/10.1007/s12667-018-0311-y`

3. Sigauke, C., Nemukula, M.M. and Maposa, D. (2018). Probabilistic hourly load forecasting using additive quantile regression models, Energies, vol. 11, no. 9, pp. 1-21.

4. Nemukula, M.M. and Sigauke, C. (2018). Modelling average maximum daily temperature using r-largest order statistics: An application to South African data, Journal: Jàmbá: Journal of Disaster Risk Studies. ISSN: (Online) 2072-845X, (Print) 1996-1421. 10(1), a467. `https://doi.org/10.4102/jamba.v10i1.467`

5. Lebotsa, M.E., Sigauke, C, Bere, A., Fildes, R. and Boylan, J.E. (2018). Short term electricity demand forecasting using partially linear additive quantile regression with an application to the unit commitment problem, Applied Energy, vol. 222, pp. 104-118. ISSN: 0306-2619.

6. Sigauke, C. and Bere, A. (2017) Modelling non-stationary time series using a peaks over threshold distribution with time varying covariates and threshold: An application to peak electricity

demand, Energy Journal, vol. 119, pp. 152-166. ISSN: 0360-5442.

7. Sigauke, C. (2017). Forecasting medium term electricity demand in a South African power supply system, Journal of Energy in Southern Africa, vol. 28, no. 4, pp. 54-67. ISSN 1021-447X.

8. Sigauke, C.and Chikobvu, Delson. (2017). Estimation of extreme inter-day changes to peak electricity demand using Markov chain analysis: A comparative analysis with extreme value theory, Journal of Energy in Southern Africa, vol. 28, no. 4, pp. 68-76. ISSN 1021-447X.

9. Sigauke, C. (2016) Volatility modeling of the JSE all share index and risk estimation using the Bayesian and frequentist approaches, Economics, Management, and Financial Markets, vol. 11, no. 4, pp. 33-48, ISSN 1842-3191.

10. Sigauke, C. and Chikobvu, D. (2016) Peak electricity demand forecasting using time series regression models: An application to South African data, Journal of Statistics and Management Systems, vol. 19, no. 4, pp. 567-587, ISSN: 2169-0014.

11. Mokhele, M. and Sigauke, C. (2015) Modelling summer daily peak loads in South Africa using discrete time Markov chain analysis, Mathematics and Statistics, vol. 3, no. 5, pp. 121-128. doi: 10.13189/ms.2015.030502.

12. Sigauke, C., Makhwiting, R. and Lesaoana, M. (2014) Modelling conditional heteroskedasticity in JSE stock returns using the Generalized Pareto Distribution, African Review of Economics and Finance, vol. 6, no. 1, pp. 41-55. ISSN: 20421478.

13. Maposa, D. Cochran, J.J., Lesaoana, M. and Sigauke, C., (2014) Estimating high quantiles of extreme flood heights in the lower Limpopo River basin, Mozambique, using model based Bayesian approach, Natural Hazards and Earth System Sciences, vol. 2, no. 8, pp. 5401-5425. doi:10.5194/nhessd-2-5401-2014.

14. Makhwiting, R., Sigauke, C. and Lesaoana, M. (2014) Modelling tail behavior of returns using Generalized Extreme Value distribution, Economics Management and Financial markets, vol. 9, no. 1, pp. 41-52. ISSN: 1842-3191.

15. Sigauke C., Darikwa T.B. and Masemola M.I. (2014). Prediction of South Africa's Tourism Hotel Accommodation Monthly Income: Challenges in an Environment Characterised by a World Recession and a World Cup, Mediterranean Journal of Social Sciences, vol. 5, no. 20, pp. 460-465. ISSN:2039-2117.

16. Sigauke, C., Verster, A. and Chikobvu D. (2013) Extreme daily increases in peak electricity demand: tail-quantile estimation, Energy Policy Journal, vol. 53, pp. 90-96. ISSN 0301-4215.

17. Chikobvu, D. and Sigauke, C. (2013) Modelling influence of temperature on daily peak electricity in South Africa, Journal of Energy in Southern Africa, vol. 24, no. 4, pp. 63-70. ISSN 1021-447X.

18. Verster, A., Chikobvu, D. and Sigauke, C. (2013) Analysis of the same day of the week increases in peak electricity demand in South Africa, ORiON Journal, vol. 29, no. 2, pp. 125-136. ISSN: 0529-191-X.

19. Sigauke, C., (2013) Volatility modelling of real GDP growth rates in South Africa, Economics

Management and Financial Markets, vol. 8, no. 2, pp. 81-94. ISSN: 1842-3191.

20. Kumar, S., Munapo, E., Ncube, O. and Sigauke, C., Nyamugure, P. (2013) A minimum weight labelling method for determination of a shortest route in a non-directed network, International Journal of System Assurance Engineering and Management, vol. 4, no. 1, pp. 13-18. ISSN: 0976-4348.

21. Chikobvu, D., Sigauke, C. and Verster, A. (2012) Winter peak electricity load forecasting in South Africa using extreme value theory, South African Statistical Journal, vol. 46, pp. 377-394. ISSN: 0038-271X.

22. Chikobvu, D. and Sigauke, C. (2012) Regression-SARIMA modelling of daily peak electricity demand in South Africa, Journal of Energy in Southern Africa, vol. 23, no. 3, pp. 23-30. ISSN 1021-447X.

23. Sigauke, C., Verster, A. and Chikobvu, D. (2012) Tail quantile estimation of heteroskedastic intraday increases in peak electricity demand, Open Journal of Statistics, vol. 2, no. 4, pp. 435-442. ISSN: 2161-7198.

24. Chikobvu, D. and Sigauke, C. (2012) A frequentist and Bayesian regression analysis to daily peak electricity demand in South Africa, African Journal of Business Management, vol. 6, no. 40, pp. 10524-10533. ISSN: 1993-8233.

25. Sigauke, C. and Chikobvu, D. (2012) Short-term daily winter peak electricity demand in South Africa, African Journal of Business Management, vol. 6, no. 32, pp. 9243-9249. ISSN: 1993-8233.

26. Makhwiting, R., Lesaoana, M. and Sigauke, C. (2012) Modelling volatility and financial market risk of shares on the Johannesburg Stock Exchange, African Journal of Business Management, vol. 6, no. 27, pp. 8065-8070. ISSN: 1993-8233.

27. Makukule, N. A., Sigauke, C. and Lesaoana, M. (2012) Daily Electricity Demand Forecasting in South Africa, African Journal of Business Management, vol. 6, no. 9, pp. 3246-3252. ISSN: 1993-8233.

28. Chikobvu, D., Sigauke, C. and Verster, A. (2012) Winter peak electricity load forecasting in South Africa using extreme value theory with a Bayesian flavour, Journal of Business and Economics, vol. 3, no. 5, pp. 380-389. ISSN: 2155-7950.

29. Sigauke, C., Maposa, D. and Chagwiza, W. (2012) Modelling Commercial Banks liquidity Management Using Stochastic Programming, International Journal of Business and Management, vol. 7, no. 9, pp. 49-64. ISSN: 1833-3850.

30. Sigauke, C. and Chikobvu, D. (2011) Prediction of daily peak electricity demand in South Africa using volatility forecasting models, Energy Economics Journal, vol. 33, no. 5, pp. 882-888. ISSN: 0140-9883.

31. Riba, S.J., Lesaoana, M, Sigauke, C. and Makwela, M.R. (2011) A logistic regression analysis of the occurrence of mine accidents in the Burgersfort area in South Africa, Journal of Geology and Mining Research, vol. 3, no. 1, pp. 188-192. ISSN: 2006-9766.

32. Evans, D., Lesaoana, M., Nyamugure, P. and Sigauke, C. (2011) O.R. roots run deep in South-

ern Africa-Long lineage of OR in South Africa and Zimbabwe paves the way for historic 2011 ORSSA and growth of OR across the continent, OR/MS Today, vol. 38, no. 2, pp. 40-46. ISSN: 1085-1038.

33. Evans, D., Lesaoana, M., Nyamugure, P. and Sigauke, C. (2011) Operations Research Comes to Zimbabwe in a Big Way Ű The ORSSA 2011 Conference at Victoria Falls, AMSTATNEWS

34. Nyamugure, P., Maposa, D., Sigauke, C. and Chiyaka, E. (2011) A holistic application of process capability indices, African Journal of Business Management, vol. 5, no. 28, pp. 11413-11424. ISSN: 1993-8233.

35. Sigauke, C. and Chikobvu, D. (2010) Daily peak electricity load forecasting in South Africa using a multivariate non-parametric regression approach, ORiON Journal, vol. 26, no. 2, pp. 97-111. ISSN: 0529-191-X.

Book chapters

1. Sigauke C., Kumar S., Maswanganyi N. and Ranganai E. (2018). Reliable Predictions of Peak Electricity Demand and Reliability of Power System Management. In: System Reliability Management: Solutions and Technologies. Edited by Anand A. and Ram M. CRC Press, Taylor and Francis, 1st Edition, Chapter 10. ISBN 9780815360728, eBook ISBN 9781351117654

Refereed research papers in conference proceedings

1. Mokilane, P., Debba, P., Yadavalli, V.S.S. and Sigauke, C. (2018). Long-term electricity demand forecasting using a generalised additive mixed quantile averaging (GAMMQV) model. Proceedings of the International Conference on Industrial Engineering and Operations Management, Pretoria, South Africa, October 30 – November 1, 2018. ISBN: 978-1-5323-5947-7.

2. Nemukula, M.M., Sigauke, C. and Maposa, D. (2018). Bivariate threshold excess models with application to extreme high temperatures in Limpopo province of South Africa. South African Statistical Journal: Peer-reviewed Proceedings of the 60th Annual Conference of the South African Statistical Association for 2018, pp. 33-40.

3. Maswanganyi, N., Sigauke, C. and Ranganai, E. (2017). Peak electricity demand forecasting using partially linear additive quantile regression models. South African Statistical Journal: Peer-reviewed Proceedings of the 59th Annual Conference of the South African Statistical Association for 2017, pp. 25-32. ISBN 978-1-86822-692-4.

4. Nemukula, M.M. and Sigauke, C. (2015). Modelling average minimum daily temperature using extreme value theory with a time varying threshold, South African Statistical Journal: Peer-reviewed Proceedings of the 57th Annual Conference of the South African Statistical Association for 2015, pp. 57-64. ISBN 978-1-86822-670-2.

5. Sigauke, C., Chikobvu, D. and Verster, A. (2012) Modelling daily increases in peak electricity demand using a generalized Pareto distribution, South African Statistical Journal: Peer-reviewed Proceedings of the 54th Annual Conference of the South African Statistical Association for 2012, pp. 58-66. ISBN 978-1-86822-621-4.

6. Sigauke, C. (2011) An Econometric study of currency crisis in a hyperinflationary economy: A case study, Proceedings of the 40th Annual Conference of the Operations Research Society of South Africa, pp. 29-36. ISBN: 978-0-7972-1351-7.

7. Sigauke, C., Maposa, D., Mudimu, E. and Nyamugure, P., (2010) Volatility modelling using ARIMA-GARCH models in a hyperinflationary economic environment: The Zimbabwean experience, South African Statistical Journal: Peer-reviewed Proceedings of the 52nd Annual Conference of the South African Statistical Association for 2010: Special Issue 1, pp. 1-14, ISSN: 0038271X.

Papers Presented at International Conferences

1. Sigauke C., Nemukula M.M. and Chikobvu D. Impact of temperature extremes on electricity demand: A case study. 21st Conference of the International Federation of Operational Research Societies, Quebec, Canada, 17-21 July 2017.

2. Nemukula M.M. and Sigauke C. Modelling average maximum daily temperature using r largest order statistics: An application to South African data. 61st ISI World Statistics Congress, Marrakech, Morocco, 16-21 July 2017.

3. Nemukula M.M. and Sigauke C. Modelling average minimum daily temperature using extreme value theory with a time-varying threshold. 10th International Conference on Extreme Value Analysis, Delft University of Technology, The Netherlands 26-30 June 2017.

4. Sigauke C. Modelling the effect of heatwaves on electricity demand: A case study. The 3rd International Conference on Energy and Environment Research, Barcelona, Spain, 7-11 September 2016.

5. Sigauke C. Modelling of extreme non-winter peak electricity demand: An application to South African data. The 36th International Symposium on Forecasting, Santander, Spain, 19-22 June 2016.

6. Sigauke C. and Dowdeswell M., Modelling peak electricity demand using extreme value theory with time varying parameters: An application to South African data. The 35th International Symposium on Forecasting, Riverside, California, USA, 21-24 June 2015.

7. Dowdeswell M. and Sigauke C., Non-stationary point processes and their extremes: an exploration of electricity demand in South Africa. The 9th International Conference on Extreme Value Analysis at the University of Michigan, Ann Arbor, June 15-19, 2015, USA.

8. Mokhele M. and Sigauke C. Modelling summer daily peak load demands in South Africa using discrete time Markov chain analysis. The 9th International Conference on Extreme Value Analysis at the University of Michigan, Ann Arbor, June 15-19, 2015.

9. Sigauke C. and Chikobvu D, A Markov chain analysis of daily changes to peak electricity demand in South Africa. The 34th International Symposium on Forecasting, Economic Forecasting Past, Present and Future, Rotterdam, The Netherlands, June 29ŰJuly 2, 2014.

10. Sigauke C. and Chikobvu D, A probabilistic characterization of day to day changes in peak

electricity demand. The 34th International Symposium on Forecasting, Economic Forecasting Past, Present and Future, Rotterdam, The Netherlands, June 29ŰJuly 2, 2014.

11. Chikobvu D., Sigauke C. and Verster A., Winter peak electricity load forecasting in South Africa using extreme value theory with a Bayesian flavour. Poster presented at the International Society for Bayesian Analysis, June 2012 Conference, Kyoto, Japan.

12. Sigauke C. and Chikobvu D., Modelling daily peak electricity load forecasting in South Africa using a multivariate non-parametric regression approach. 19th Triennial Conference of the International Federation of Operations Research Societies, Melbourne, Australia, July10-15, 2011. Chaired the invited session FC-1: OR, Energy, and Africa in stream OR Applications in Energy.

13. Chikobvu D. and Sigauke C., Modelling daily peak electricity demand in South Africa using SARIMA and RegSARIMA models. Second Isibalo Young African Statisticians' Conference, 1-3 December 2010, Pretoria, South Africa.

14. Sigauke C., 'An econometric study of currency crises in developing economies: the Zimbabwean case'. 18th Triennial Conference of the International Federation of Operations Research Societies, Sandton Convention Centre, South Africa, July 13-18, 2008. Chaired the session MC-13 Finance Applications.

International Conferences Attended without a presentation

1. 26-30 July 2015: IEEE Power & Energy Society General Meeting, Powering up the next generation, Denver, Colorado, USA. Attended a full day tutorial on Energy Forecasting in the Smart Grid Era.

International Research visits

1. Research collaboration visit: Department of Mathematical Sciences, University of Malawi, 30 October 2017 to 3 November 2017. "Impact of temperature extremes on electricity demand: A case study".

2. Research collaboration visit: Lancaster Centre for Forecasting, Lancaster University, Management Science, December 5-9, 2016. "Short-term electricity demand forecasting using quantile regression with an application to the unit commitment problem". `http://www.research.lancs.ac.uk/portal/en/people/search.html?search=Caston+Sigauke&uri=&filter=`

Computer skills

- Statistical Software: R, WinBUGS
- Application: Ms Office, LATEX
- Learning Management System: Blackboard, Sakai
- Operating System: Windows
- Reference Management Software: BibTeX

Referees

To be provided upon request.