points of the fitted model. As future work GARCH models can be improved with new software.

- Arithmetic returns were used for all analysis of price indices, as a future work geometric return can be used to reconstruct volatility models for Colombo Stock Exchange price indices.

REFERENCES

1. Aas, K., & Dimakos, X. K. (2004). *Statistical modelling of financial time series: An introduction.* Norwegian Computing Center, Oslo: Norway.

2. Bollerslv, T. (1986). Generalized Autoregressive Conditional Heteroskedasticity. *Journal of Econometrics*, 307-327.

3. Enders, W. (2004). Applied Econometric Time Series. *Wiley Series in Probability and Statistics*.

4. Engle, R. (1982). Autoregressive Conditional Heteroskedasticity with Estimates of the variance of United kingdom Inflation. *Econometrica*, 987-1007.

5. Garg, K. (2008). The Effect of Changes in the Federal Funds Rate on Stock Markets: A Sector-wise Analysis. *Undergraduate Economic Review,Vol. 4: Iss. 1, Article 2*.

6. Hasan, M. M. (2011). Sector-Wise Stock Return Analysis: An Evidence from Dhaka Stock Exchange in Bangladesh. *International Journal of Business and Management,Vol. 6, No. 6*, 276-285.

7. Hor, C. L., Watson, S. J., & Majithia, S. (2006). Daily Load Forecasting and Maximum Demand Estimation using ARIMA and GARCH. *9th International Conference on Probabilistic Methods Applied to Power Systems*, (pp. 1-6). Sweden: KTH.

8. Jegajeevan, S. (n.d.). Return Volatility and Asymmetric News Effect in Sri Lankan Stock Market. *Staff Studies,Central Bank of Sri Lanka – Volume 40 Numbers 1 & 2*, 37-57.

9. Konarasinghe, W. G., & Chandrapala, P. (July - December, 2013). Modeling Stock Returns and Trading. *Sri Lankan Journal of Management Vol. 18, Nos. 3 & 4*, 166-188.

10. Konarasinghe, W., Abeynayake, N., & Gunaratne, N. (2015). ARIMA Models on Forecasting Sri LankanStock market Indices. *International Journal of Novel Research in Physics Chemistry & Mathematics*, Vol. 2, Issue 1, pp: (6-12).

11. Morawakage, P. S., & Nimal, P. (July-December 2015). Equity Market Volatility Behavior in Sri Lankan Context. *Kelaniya Journal of Management ,Vol. 4 No. 2*, 1-9.

12. Rani, K., & Kaur, M. (2011). *Parameter estimation based on particle Swarm optimization foe short term load forecasting*. Patiala: Electrical & instrumentation engineering department.

13. Rathnayaka, R., Seneviratna, D., & Nagahawatta, S. (2014). Empirical Investigation of Stock Market. *Reshaping Management and Economic Thinking through Integrating Eco-Friendly and Ethical Practices* (pp. 209-2016). Sri

Lanka: Faculty of Management and Finance, University of Ruhuna. ISBN 978-955-1507-30-5.

14. Samayawardena, D., Dharmarathne, H., & Tilakaratne, C. (2015). Volatility Models for World Stock Indices and Behaviour of All Share Price Index. *Proceedings of 8th International Research Conference,KDU*, (pp. 175-182). Colombo.

15. Taylor, S. (1986). *Modeling financial time series.* Chichester: John Wiley & Sons.

16. TSAY, R. S. (2002). *Analysis of Financial.* Canada: A Wiley-Interscience Publication.

17. Zakaria, S. Z. (2012). Modeling Stock Market Volatility Using GARCH models. *International Journal of Business and Social Science*, 114-128.