



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	Ms_BJAST_32632
Title of the Manuscript:	VARIABILITY OF THE HISTORICAL AND FUTURE TEMPERATURE IN BANGLADESH
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments		
Abstract	Abstract: rework it to capture the findings and recommend appropriately	Thank you for your valuable comments. Now the Box-Jenkin's approach is replaced by Box-Jenkin's algorithm.
Title		
Methodology	Suggestion: Forecasting of Monthly Temperature in Bangladesh Using Box-Jenkins Algorithms.	If you have a look on the texts just after Figure 2, you will see "However, to identify the appropriate model type that fits with the historical data, residual Auto Correlation Function (ACF) and Residual Partial Auto Correlation Function (PACF) with maximum number of lags 24 and 95% confidence interval were plotted at first (Figure 2). The graphs of ACF and PACF were used as an indicator of consistency of the data. If all the spikes (Figure 2) lied within the upper and lower boundary limits then the data were considered as consistent otherwise inconsistent." That means consistency were checked and then forecasted. 13 stations @ 12 months of each station = 156 times for each type of temperature the stationary and non-stationary test were carried out.
Results	Methodology is not appropriate. There is need to carryout stationary and non- stationary test on the historical temperature data. Rework this methodology based on Box-Jenkins algorithms and theory before forecasting.	
Conclusion	Results: It requires serious improvement in the area of the stationary test, model identification, parameter estimation and forecasting accuracy. Conclusion: no conclusion The author should report the best forecasting model in different 13 meteorological stations. State the best forecasting model in each station and their implications on agriculture, health etc. in Bangladesh.	After getting your comments, I have forecasted the temperature of all stations using only ARIMA model and found same results. Regarding the model theory: Three models; Expert Modeller, Exponential Smoothing (Holt's Linear Test, Brown Linear Test and Damped Linear Test) and ARIMA, were used for forecasting. If I give the theory of all models then text volume will be very high. That's why the theory of the models was not given but little theory about the ARIMA model was given in my Manuscript as other models: Expert modeller and exponential smoothing are also the part of the ARIMA model. If you see the text starting from "In case of inconsistent data,..... to before Figure 3 you will get little theory about the



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		ARIMA model. A little theory and pure mathematical form of ARIMA model are added in the modified manuscript. Regarding the best stations: Each stations has three types of temperatures; Mean, Maximum and Minimum and each type has twelve months. So $12 \times 3 \times 3 = 108$ best models for each stations. For total 13 stations, $13 \times 108 = 1404$ models. I think it would not be wise to incorporate all the model names in the manuscript.
<u>Minor</u> REVISION comments	Replace average with mean Replace Box Jenkin's approach in IBM SPSS with Box Jenkins Algorithms. State the environment where the analysis was carried out	Average is replaced with mean Is it necessary to mention the environment where the analysis were done or the environment where the temperatures were taken/recorded? If your question is the second one then the answer is they were dry-bulb temperature.
<u>Optional/General</u> comments	Recast some phrase/sentence highlighted in the manuscript.	Now it is changed a bit. Hope it will workout.