



SDI Review Form 1.6

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_56265
Title of the Manuscript:	Stochastic Modeling and Prediction of the COVID-19 Spread in Kenya
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. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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	<p>1. Results and Discussion: What you have written in conclusion is actually discussions of your results. Bring this conclusion and merge it as: 4. Results and Discussions: Then support yours and discussions with current authorities to buttress your work, also explain what is learnt from the study.</p> <p>2. Conclusion: Here, i) State precisely what you did, ii) Why you did the study, iii) method(s) used to address the objectives of the study, iv). State your results, and be precise on what is learnt from the study, and v) Concisely state the contribution of the work to the body of knowledge in this field. Last sentence: state further research work.</p>	
Minor REVISION comments	<p>1a. Abstract: Many mathematical models has [have] been proposed for proper modeling and forecasting, but this paper will focus on using a generalized linear regression that can detect linear relationship between the risk factors.</p> <p>1b Abstract: Ultimately, this paper should [would] assist the government in proper resource allocation to deal with [the] pandemic in terms of available of bed capacities</p> <p>2. Introduction: According to WHO statistics as at March 30, 2020, [6] the mortality rate of persons who had been diagnosed cases was on average of 4.6 percent and it ranges from 0.2..</p> <p>While the virus was identified first in December 2019 in the city Wuhan, which is the capital of Hubei province in China [9], it now a global pandemic and has affected close to a million people. Many of the countries had made mild preparations knowing that the diseases would ultimately catch up with them [3] due to inadequate information on its short and long term effects. Some of the common signs of COVID-19 includes fever, shortness of breath and dry coughs [10]. Other uncommon symptoms includes muscle pains, mild diarrhea, abdominal pain, sputum production, loss of smell, as well as sore throat.</p> <p>As at 2nd April 2020, only seven African countries had not reported a case of corona virus (COVID-19). These countries includes Lesotho, Sierra Leone, South Sudan, Burundi, Malawi, São Tomé and Príncipe, and Comoros. This means that Kenya is among the most affected countries in Kenya with confirmed cases totaling to over 80 cases. On 12th March 2020, Kenya had recorded the first case, which was confirmed by the President. It was a young woman who had arrived in the country from USA via UK in London. While many measures had been taken by the government of Kenya to combat the spread of the virus among the citizens; some of these measures includes banning of traveling of undocumented foreigners from any country in the world with recorded cases of Corona virus. In addition, any Kenyan and permitted foreigner who travels back to the country from the hard-hit countries to proceed to mandatory self-quarantine at a designated quarantine facility for 14 days before being released to the public.</p> <p>The aim of this paper is model the spread of Covid-19 virus thus enabling the government to make ready and proper preparations thus reducing Kenya becoming another “hotbed” of Covid-19 virus deaths in Africa.</p> <p>In addition, the results from paper after stochastically modelling of the virus spread [7] help in making predictions on the potential effects thus assisting the response agency deal with inadequate hospital and infrastructure development for safety of Kenyans at large. This is to prevent any form unnecessary death that is likely to be experienced during the period.</p>	



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	<p>2. Stochastic Modelling Methods: The states can be summarized in a conceptual framework as described the figure below; [as described in the Figure below].</p> <p>From the above conceptual framework (Figure (1)), [(Figure 1)]</p> <p>It is important to make an assumption that an individual can move from state to another during the entire period of the virus existence.</p> <p>who made contact persons who have confirmed cases of the virus.</p> <p>Note: Please correct the above highlighted words or phrases and also check others and effect corrections.</p>	
<p><u>Optional/General</u> comments</p>		

PART 2:

	<p>Reviewer's comment</p>	<p>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)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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