



SDI Review Form 1.6

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_50032
Title of the Manuscript:	EARLY WARNING SYSTEM FOR FLOOD DISASTER PREDICTION IN WETLAND AREA IN GREATER YOLA USING ADAPTIVE NEURO FUZZY INFERENCE SYSTEM
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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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	<ol style="list-style-type: none"> 1. Please revise the units in which Humidity is expressed in Tables 2-12. Air humidity can't be expressed in mm, but in % (relative humidity) or mb/mmHg (absolute humidity). Therefore, please specify what exact humidity parameter has been measured. By the given values, it's about relative humidity, measured in %. 2. Please make an extra revision of the English language, as well as of the real meaning of the ideas to be conveyed, as some peculiar effects may appear, e.g. lines 40-41: <i>"There is a growing interest in obtaining oceanographic data due to the importance of the ocean or river to different features of human life expectancy"</i>. 	
Minor REVISION comments	<p>Although not quite minor, the following issues are also important to be dealt with at least in further improving the conceptual framework of the flood prediction system that the authors have devised:</p> <ol style="list-style-type: none"> 1. Any functional and effective warning system for flood prediction must also take into account historical or extreme absolute values of rainfall amounts; 2. As in the area of reference, rainfall amounts largely range from the dry season to the wet season and there also occur great value differences from one year to another even during the same wet season, it would highly be advisable if authors could also take into consideration: some critical thresholds of rainfall amounts and water flows, their different probabilities of occurring within the highest rates of confidence and the potential association of various hazardous climatic factors; 3. Although the experimental runs have proven quite good correlations between the actual and the predicted rainfall values, depending on the wet-season monthly corresponding values, the authors have to also think of a way to integrate daily values of climatic parameters in their ANFIS simulated network model, as floods often have an instantaneous evolution, depending on the caprices of the weather; 4. The results obtained seem quite encouraging but for their correct validation in accordance with international standards, at least regarding climatic factors of influence, the authors should also be aware of the fact that the minimum WMO recommended time-series of climatic data must span over at least 30 years to get climatic relevance. 	
Optional/General comments	<p>Overall, the present paperwork is very interesting and has definitely implied a lot of effort and work, which is minutely and convincingly demonstrated with accurate findings. Despite the inherent flaws, gaps or blanks of inspiration, appearing in any initial stage of important developments, it is to be noted, however, that this experiment must be appreciated as it attempts to convey the influence of a lot of potential variables (input) into a very reliable, stable and representative outcome (output). Actually, the present study explains how an ANFIS flood prediction model can be developed on basis of a large variety of climatic, relief, runoff etc. conditions in the wetland area of the Yola region in NE Nigeria. For this, the authors have used relevant wet-season monthly data for air-temperature, humidity and rainfall amounts from 2008 to 2017, alongside with a lot of other geologic, morphometry, river-bed, land-use etc. factors, to devise an Artificial Neural Fuzzy Inference System algorithm to predict future floods based on current dataset values. The results being obtained are pretty promising but obviously need further calibrations and improvements. But for this stage, they are reliable and replicable enough. The comprehensive presentation of their work premises and conceptual design is very minute and convincing, there is no major logical component left unattended, and the simulations being made are justifiable and productive. In conclusion, the present study may be published with some minor corrections, as a starting experimental phase of an important future achievement.</p>	



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PART 2:

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

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