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Journal Name:	**British Journal of Applied Science & Technology**
Manuscript Number:	**Ms_BJAST_30934**
Title of the Manuscript:	**Hourly Real-Time Rainfall Estimation for Improved Smart Irrigation System Using Nearby Automated Weather Station**
Type of the 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	The article has great potential, but its structure is weak and lacking in care. To improve its structure, it needs changes such as: more quotes from the literature, presenting the methodology in a concise way, discussing the results, especially, confronting the latest literature. I also recommend using the following topics: Introduction, Study Area, Materials and Methods, Results, Discussion, Conclusions. Be careful not to put elements of methodology into results and separate the topic results with the topic discussion.	Changed as per suggestions to Introduction, Study Area, Materials and Methods, Results, Discussion, Conclusions
Minor REVISION comments	Abstract: rethink about the keywords, do not use or expressions already contained in the title. Suggestions: precision irrigation, water preservation The introduction is well-paced and well-motivated. However, improvements are needed. Initially, it needs the addition of literature references especially between lines 29 and 57. I also recommend adding a paragraph that shows the importance of conscious irrigation and the question of the importance of water saving. Line 109: 119 - needs uniformity of section numbering. Line 120- "MATERIAL AND METHOD USED" change to: "Materials and Methods" The main problem with the methodology is the lack of detail about its training samples, such as: total number of samples, which were the parameters used to calibrate and validate, which validation metrics were	Addition of literature references especially between lines 29 and 57. Narayan Hegde, 2012, Water scarcity and security in India, BAIF at the Indian Science Congress. Line 109: 119 changes done as suggestions Line 120: MATERIAL AND METHOD. Table 4 added for training of input from 10 AWS and their estimated RMSE. Figure 8 caption changed to Input are nearby AWS precipitation of NCMRWF, output is NCMRWF estimation In resut it has discussed about has total training samples, validation samples, learning

	used (Pearson correlation, RPD, RMSE); As well as the presentation of these results in the results section and their discussion and comparison with the literature. About ANN Lack of justification for the choice of network architecture Why was 2 hidden layers chosen? I do not think it is necessary to explain the functioning of this ANN, it is an already consecrated network. This section should focus on the justification of its model and architecture choices, as well as important information such as: total training samples, validation samples, learning rate, activation function. On figure 7, modify the image so that the reader identifies among the input neurons which attributes were used (soil moisture, meteorological data, etc.). In results contains elements of methodology that have to be reviewed and this lack of discussion.	rate, activation function. Majority of rainfall happens in June-Oct, due to this I had very little sample but they are working fine to demonstrate idea.
Optional/General comments	Abstract: rethink about the keywords, do not use or expressions already contained in the title. Suggestions: precision irrigation, water preservation Line 129 - Place the equivalent of the cost value in dollars, euros or pounds in brackets.	Abstract: changes done as per suggestions Line 129- also mentioned in $ as $294