Review Form 1.7

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_117692**
Title of the Manuscript:	**Climate dynamics over Kerala, India: Insight from a century-long temperature and rainfall data analysis**
Type of the Article	**Original Research Article**

Review Form 1.7

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 **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	**Yes, following revisions.** **Yes.** **Yes.** **Yes.** **Yes.** **Can be made sufficient following amplification in the revision.** **Please see optional comments.**	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	Yes	
Optional/General comments	Interesting research about time-series data analysis of temperature and rainfall in Kerala, India. The novel and interesting, but not-too original work is assembled into a decently drafted manuscript that needs some mild revisions. Please make the following revisions anticipating publication recommendation from a favorable Reviewer. • The manuscript is clear, relevant for the field and presented in a well-structured manner. The cited references are quite old (just over one–third few within the last 5 years), while suggested very recently published references are offered optionally to aid revision since the broad field is neglected in favor of too quickly narrowly focusing on the references related to the proposed approaches. • The manuscript is scientifically sound, and the experimental design is appropriate to test the hypothesis. The manuscript's results are reproducible based on the details given in the methods section. The figures/tables/images/schemes appropriate and properly show the data. They are easy to interpret and understand. The data is interpreted appropriately and consistently throughout the manuscript. The conclusions are consistent with the evidence and arguments presented. The Abstract is okay but is not likely to entice the readership to continue reading the rest of the manuscript. • Use of acronyms/abbreviations in an abstract is unlikely to attract readers not already aware of the manuscript's content, and this manuscript did very well in this regard. • Results are only presented in a weak, qualitative fashion. The highest quality expression of main conclusions or interpretations is quantitative results discussed in the broadest context possible, e.g., percent performance improvement compared to a declared benchmark. "…ariability in climate parameters identified in this study may affect the crop cycle and agricultural productivity…" is very weakly stated results compared to "…xxx percent performance improvement over conventional methods were achieved….". This abstract portends a lack of comparison to state–of–the–art benchmarks.	

	The Introduction is decently done with some omitted very recent literature and some mild abuse of multi-citation without elaboration of reasons to seek the individual references (7 double-citations, 2 quadruple, and 1 decuple citation….yikes!). • Fonts change several times throughout the section indicating cut/paste of text. • Competing alternatives were neither qualitatively described in the literature review nor quantitatively described in the manuscript, indicating a potential ignorance of the broader field that should be ameliorated in the revision by further developing the methods in the broad field before too quickly narrowing to the proposed lineage. Time-series estimation via the Mann-Kendall test seems to be the most recent technique compared, and the manuscript seems to be written only for readers already committed to using that technique as opposed to any more modern alternative. The most egregious omission is deterministic artificial intelligence, where the nonlinear, time–varying self–awareness statement facilitates (2–norm) optimal learning, which was introduced in 2020 and since then has illustrated efficacy is several unrelated, disparate fields. • Another omitted alternative is Derivative Analysis of Global Average Temperatures as compared to (IPCC, 2013). Equations are scientifically sound and well presented, enhancing the manuscript quality. Figures are decently done with some mandatory improvements to ensure the readership has access to the content. • Internal font size is occasionally too small (e.g., Figure 2). Please consider the smallest advisable font size (to ensure legibility by the reader) to be the figure caption which provides a conveniently proximal prototype for sizing figures. Tables are decently done to introduce problem formation (aiding repeatability), but quantitative results are neglected. • Particularly for comparative figures, please add a table of accompanying canonical figures of merit (e.g., means and deviations of difference, or others) to help the reader ascertain quantitative differences between the plotted data. • For such a manuscript, heavy in acronym and variable usage, please add periodic tables of proximal definitions, so the readership is not required to flip back and forth between pages to remind themselves of acronym and variable definitions. • Inclusion of a table defining variables and acronyms in an appendix is welcome and effective. Please add such. Reviewer's comments to the Editorial staff follow, in the greatest spirit of transparency: Decent research in manuscript that needs amelioration of (typical) writing deficiencies in a revision. Lots of manuscript revision is necessary, but solid research is present that will likely receive a recommendation to publish following satisfactory revision. The most concerning issue is seeming ignorance of the latest developments in the field.	

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Colonel Timothy Sands**
Department, University & Country	**Cornell University, USA**