



**SDI Review Form 1.6**

**PART 1:**

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| Journal Name:            | <b><u>British Journal of Applied Science &amp; Technology</u></b>                                                |
| Manuscript Number:       | <b>2013_BJAST_5045</b>                                                                                           |
| Title of the Manuscript: | <b>Kriging interpolation method for estimation of continuous spatial distribution of precipitation in Cyprus</b> |
| Type of the Article      | <b>Research Paper</b>                                                                                            |

**General guideline for Peer Review process is available in this link:**

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

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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### PART 2: 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Compulsory</b> REVISION comments | <ol style="list-style-type: none"> <li>1) Actually, the combination of regression and kriging is called regression kriging. Therefore, more references are needed.</li> <li>2) Figure 1 should include 78 stations and so readers can know the distribution of the stations. It is better to include the watershed boundary in the map.</li> <li>3) Which stations are used for validation? It is better to be shown in the map.</li> <li>4) The maps of results should be provided so that readers can see the spatial distribution of results.</li> <li>5) More detailed discussions are needed. The discussions should focus on the results and proposed methods.</li> </ol> | <p>1) We use the term "kriging interpolation" to distinguish this method from "multiple regression". Certainly, kriging is a regression method.</p> <p>2) Actually, stations were included in Figure 1 but they weren't visible. We improved the figure.</p> <p>3) All stations are shown in the map. We also note the validation stations (line 128).</p> <p>4) Please see Figure 1.</p> <p>5) Discussion is already extended, according to the comments of the previous reviewer. Comments from the Chief Editor of BJECC Prof. Ni-Bin Chang, University of Central Florida, Orlando, Florida, USA Please inform the authors that precipitation study has so much potential to be linked to climate change. Interpolation skill in numerical efforts should not be used as a topic of research. If they can invite a meteorologist to join the team and discuss the long term precipitation change associated with climatology in Cyprus, this would be a good topic to present. I expect the resubmission from them soon.</p> |



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|                                  | 6) Conclusions should not be biased and should be based on the results and proposed methods which were presented inside the manuscript.                                                                                                                                                        | 6) Conclusions are statistically unbiased and based on the results.                                                                                                                                                                                                 |
| <b>Minor</b> REVISION comments   | <p>1) Based on proposed methods, are there the same influences between the plain stations and the mountain stations?</p> <p>2) Are there any disadvantages of proposed methods?</p> <p>3) The title only had “kriging” but entire manuscript discussed both regression and kriging issues.</p> | <p>1) All stations are mountainous (please see Figure 1).</p> <p>2) Based on our results, kriging improved our estimations.</p> <p>3) Kriging is proposed as the most appropriate method, because it improved our estimations, compared to multiple regression.</p> |
| <b>Optional/General</b> comments | This kind of research is meaningful but the methodologies, maps, discussions and conclusions of this manuscript need to be further improved.                                                                                                                                                   | We improved Figure 1, methods and discussion (highlighted in yellow).                                                                                                                                                                                               |