

To the editorial board of HESS

Re: HESS-2017-740 “**Real time rainfall estimation using microwave signals of cellular communication networks: a case study of Faisalabad, Pakistan**”

Dear Christian Chwala

To begin with, I would like to thank you for your consideration of our paper. The comments you have given, made me to reconsider the paper on basic aspects.

Best regards,
Muhammad Sohail Afzal

Comments of the reviewer/Reply

Comment 1:

The term "real time rainfall estimation" in the title is a bit misleading since you do your analysis with a historic data set. Getting data in real-time is however possible (Chwala et. al 2016) and might increase the potential for applications in the future.

Reply

Yes we agree that we did analysis for that historic data for period 2012-2017. No we have also calculated rainfall for 2017(May onward) and 2018 on ward. Of course we will include rainfall estimation for current date, and then it will become real time. Later on, we are working to develop framework for real time rainfall estimation with collaboration of Telenor Telecommunication Company. The point is that the farmers will be registered with Telenor Moblie agriculture service and farmers will receive the message of rainfall at the specific location. Further we are working on developing real time irrigation management information system (IMIS) by developing mobile application with government of Punjab, Pakistan. This rainfall information will be integrated in the mobile app for real time estimation of rainfall which will help farmer to perform real time irrigation scheduling.

Comment 2:

Most newer publications use the abbreviation "CML" (commercial microwave link) to refer to the microwave links, e.g. from cell phone networks, which we typically use to derive rainfall information.

Reply

Yes we agree that CML (commercial microwave link) is latest terminology used to derive rainfall information. We will incorporate this word CML in the updated version of the manuscript.