Interactive comment on "Comparative analysis of Kernel-based versus BFGS-ANN and deep learning methods in monthly reference evaporation estimation" *by* Mohammad Taghi Sattari et al.

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Dear Editor/Reviewer,

PS. Our responses to the referee suggestions are also provided as supplement to make them visual.

Dear Referee, Thank you for your valuable and kind comments. We agree with all your comments. 1- Share more numerical results in the Abstract. Mention the numerical results of the Model Evaluation in the Abstract. Response: More numerical results have

been given in the summary. 2- Table 1 description is not enough. Add the skewness coefficient, kurtosis coefficient and the coefficient of variation in Table 1. Response: More comments have been added related Table 1. The skewness, kurtosis and variation coefficients have been added to Table 1. 3- Show the study area on the Map of Turkey. Response: A map (Figure 1) showing the study area has been added. 4- The figures on figure 1 are not read. Please put in legible shape. Response: The quality of Figure 1 (Figure 2) has been improved. 5- Add the coefficients of determination to the graphs in Figure 2. Response: Coefficients of determination have been added to Figure 2 (Figure 3). 6- Substitute the results of the determination coefficient for the correlation coefficient, in table 4, 5, 6, and 7. Response: The correlation coefficients in Table 4-7 have been replaced by the determination coefficient. Accordingly, necessary corrections have been made in the text. 7- Add the coefficients of determination to the graphs in Figure 4-6-8-10. Response: Coefficients of determination have been added to Figure 4-6-8-10. 8- The resolution of all the figures in the study is low, the figures are not readable. Response: The resolution of figures have been improved. 9- Add the skewness coefficient, kurtosis coefficient and the coefficient of variation in Table 8. Response: The skewness, kurtosis and variation coefficients have been added to Table 8. 10- Important and relevant references have been ignored: Cobaner, M., Citakoglu, H., Haktanir, T., & Kisi, O. (2017). Modifying Hargreaves–Samani equation with meteorological variables for estimation of reference evapotranspiration in Turkey. Hydrology Research, 48(2), 480-497.

Response: Relevant reference has been examined and added to the article as a reference.

We are thankful to the Referee for her valuable comments towards the improvement of our paper.

Please also note the supplement to this comment:
https://hess.copernicus.org/preprints/hess-2020-224/hess-2020-224-AC3-

supplement.pdf

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2020-224, 2020.