Dear Referee, I am very grateful for your comprehensive feedback, I feel thankful while making the edits; as the article gets so much better at figure and gets clearer.

I am working on the notes, but I have some questions, could you please help me through. In order to get the best editing.

First, Thanks For referring to the importance of the topic.

Second, both the references and the discussion are being modified, and the superfluous figures and tables are also edited as well.

For General Comments:

- I am currently working on proofreading the article. And will add at the end of the introduction what you said.
- You are right , I see now that some of the figures and tables could be deleted, could I keep some of the mentioned figures and tables that you said I should delete?
  For Fig 1 I saw before some articles in a high IF journals that have an aerial photo, so I thought it would be appropriate to leave it.
  Fig 2 will be deleted, so as fig 4 if you think is better.
  For Fig 8, I have seen a similar photo in a related article that was published in this journal "DWES", so I thought it would be appropriate to leave it. Mentioning that it was a very helpful tool for the plant operators.
  Fig 10 will be deleted or modified if you think is better.
  I will also summarize the theoretical background.
- For the lines from 145 to 234 Do you mean I should move them into the results section? Or should just eddied and summarize them and remove some of the results to the results section?
- References will be deleted from the conclusion section.

For Specific Comments:

- Lines 3-4 ,10 and 38-39 will be deleted as suggested.
- Line 8 For the "Organoleptic" I have added this sentence, with the referee, hope you give me your opinion, is this enough?

The organoleptic quality of water is determined by assessing its smell, taste, color, and turbidity. If the water has an unusual taste or smell, it could be a health hazard and a problem for the plant.

- Line 16 maybe the error is because of the expression in my native language, I have edited the sentence into: Suspensions seek to settle out under the effect of gravity

- Line 15- 20: 3-4 to 0.1 like Bacteria and clay
  0.1 – 0.001 like colloidal silica, sugar molecule, albumin protein molecule, viruses

- Line 25-30 : I have added the reference (Haghiri et al 2018)

- Line 31: Standarize was replaced. The sentence were edited as the following:

  Coagulation is the process of increasing the sizes of dispersed particles by using materials that are able to manipulate electrostatic charges of suspended particles, by destabilizing the charges on particles or colloids in suspension and collecting them into bigger flocs that are able to be settled.

- Line 32 – 35 : What I meant is that the old equations for water treatment processes were build based on the reactions , like the ASM models for wastewater and so on, I would delete it if you think is better.

- Line 46-52 were rephrased as the following:

In recent years, a variety of artificial intelligence techniques(AI) have been used in modeling complex nonlinear water treatment processes, Due to the fact that they are able to model conventional data; and are very useful when is required to determine an output that is related to one input or more. (Kim, C, & Parnichkun, M. 2017)

- Line 57: It was written in the reference like this, I was confused to write it like this ,I may delete this referee as it is not clear to me , when I tried to mention it I picked a sentence that was written in the conclusion part at 13,14 line
  This is the DOI for the article doi:10.5194/dwes-6-39-2013
  The article was published in DWES journal

- Line 61: It was explained as Group method of data handling
- Line : 62-63 was modified as the following :

In another study done by (Daghbandan, A et al, 2019); Polyelectrolyte, pH, turbidity, polyaluminium chloride, temperature, and electrical conductivity were used as input parameters in a study used GMDH to predict Aluminum and turbidity in drinking water plant, the study gave great results, with the coefficient of determination (R2) 0.9138

- Both lines 5 and 72 were given a reference
- Line 82: another language error because the way it is said in my language. the sentence was modified
- Line 84 the sentence was modified as the following:

  All chemicals are added before the main distributor, and the sentence could be deleted if you think is better.

- Line 85 the sentence was modified as following

Then, water is distributed into 4 circular sedimentation tanks each with a diameter of 31 m, after that the water goes to the sand filters, which are 20 filters; that is equipped with a filter layer of up to 1.5 m.

- Line 90-140 were modified according to the general comments , and Fig2 was deleted
- Mythology: Some articles in some journals have this section; I thought it would be appropriate if it is separated from the materials and methods, I will delete this word.
- As I agree with your note, it is much appropriate without it.
- 145-146: the outliner records were very few, there was like 4 or five records during the heavy rains, the turbidity levels were around 80 NTU , the water in this situation does not inter the plant , and the operators stop the work in it .So It was better not to use this values. They were very extreme values that could affect the results, so they were excluded. The same thig was done with the master thesis by Mcarthur in page 18.
- Line 156 :I agree the sentence needs modifying, but I want to mention , in the thesis of Mcarthur the sentence were like this for the coagulant, and it is a master thesis so I thought it is appropriate to write it like this.
  For the pH, I should have added the solubility of the coagulant, it is writing mistake.
- Line 164-166 :
  the article is part of a bigger work , the fifth models mentioned at table 4 were built with the same technique ,But I thought it would be better to build the model with the fifth parameters, I have the results for the fifth model that has the less parameter , with just Turbidity , pH and coagulant ,But I am afraid I should never make such a change now.
- Line 246 I did not get the question. The three groups of ANN are training, validation and testing.
  The number of the fig at line 246 was corrected.
- Line 258 it is a writing mistake I mean input turbidity
- The sensitivity method could be deleted. Or removed to the materials and methods part as you mentioned. Hope you give me your opinion.
- Line 271 -278 : I appreciate your note , but in this regard I want to mention that the GUI was a very helpful tool for the operators , and I have seen an article published in this journal DWES with a GUI figure , So I thought It is appropriate to mention that we had made this tool , for the ease of using the ANN results. This EXE could be used from any one and for the plants with the same treatment process and water quality .
- The MLR will be mentioned at the materials and methods part.
- 301-302 the last part of the sentence will be deleted, it was a part of a deleted sentence that have not been deleted by mistake.
- Line 322 -323 there is no enough articles that have discussed the residuals aluminum ; the thing that some of the discussion society have mentioned, the article (J. Tomperi) gave results with more than 0.477 RMSE whereas our article gave results with 0.02 RMSE, and another article (Alahyar et al) gave results with R^2 0.91 but with deferent inputs and alum is not the coagulant used in this article
- Line 329-351 the references will be deleted from the conclusion part.

I repeat my Thanks; I am very thankful and I appreciate your very helping comments and the time you gave for the article.