

Review for Paper: A secure healthcare data transmission based on synchronization of fractional order chaotic systems

The work presents the ... Following points must be considered to improve the quality of this work;

- 1) Line 384, "By incorporating the timestamp $ts1$ as a key" is still the same as in previous version. Is it a typo or the $ts1$ is used as a secret key for encrypting the data?
In the reply, it is stated as "In this scenario, the access point only transmits encrypted signals, denoted as $2Enc(t)$, along with a timestamp, represented as $ts1$, serving as an additional key."
It is fine to say that the "encrypted signal contains a timestamp" but it cannot be stated as a key because the entire message is encrypted with a key to generate an encrypted signal. Time stamp is only used for ensuring the key freshness while the message is decrypted at receiver side. It may happen that the ts can be a part to calculate the secret key but it cannot be used as a key. Time stamp can easily be guessed from the transmission time which is a publically known value.
- 2) Not addressed. In simulation parameters, add the configuration parameters for conducting the simulation like different parameters of the equations that can directly affect the performance and similar parameters. In Table 3, no need to write MATLAB, Master and slave system instead discuss these in paragraph above the Table.
- 3) Not addressed. Figure 12, 13 and 14 also lacks in describing technical justification of results. In x-axis, why the values of t are from 0 to 10 whereas in other graphs, it is from 0 to 100. Also mention the unit at the end of titles for x and y axes.
- 4) The results compared in the Master (classical fractional-order Lorenz system) for encryption and Slave (fractional-order Rossler system) for decryption should also be presented in your work.

Minor Corrections:

- 5) For the justification to the without / with control input to zero, also add this text in the manuscript from the line 501 onwards.
- 6) Figure 1 can be removed. Section 2.2 can be reduced by adjusting in one paragraph as the information is already stated in a similar way in figure 2.2.
- 7) Equation numbers are still not mentioned in the text above that equation e.g. writing as "given in equation (1)."

- 8) In reply to comment 10, “For all the graphs, explicitly describe why a value is small or large for the Master and Slave systems”. The technical description mentioned in the reply should also be written in the manuscript.
- 9) In Section 5.3, cite the reference # of the base schemes (master and Slave systems).