Review of: "Qualitative Analysis of a Time-Delay Transmission Model for COVID-19 Based on Susceptible Populations With Basic Medical History"

Muhammad Imran[1]

1 University of Tulsa

1. How authors divide susceptible in S1 and S2 without giving any reasonable information. For details authors can see (https://www.mdpi.com/2259972).

2. In delay system, why authors put "t-τ" in S1 and S2 only and not for the other state variables?

3. Authors should explain the method or software to find Eigen values for J(Eo). Explanation can be seen in **https://doi.org/10.1002/mma.9482, https://doi.org/10.1002/mma.8593.**

4. Why authors find stability for the system of equations without delay and not for delay ?

5. For Ro=1.56 (endemic equilibrium point), Figure 2 shows, I approaches to zero (disease free equilibrium point). It is contradiction.

6. Give a brief introduction of Covid-19, delay system and mathematical modeling of other epidemic models as well. You may see the, https://doi.org/10.1016/j.aej.2023.03.073, https://doi.org/10.3390/sym15020380, https://doi.org/10.1016/j.eswa.2023.121094.

7. Cite few of the recent articles.