

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

Mati ur Rahman¹

1 Shanghai Jiaotong University

Potential competing interests: No potential competing interests to declare.

The authors have considered the COVID-19 model and calculated the basic reproduction number. Using the basic reproduction number, the authors have discussed the stability analysis of the considered model. The paper is very interesting, I recommend the paper after doing minor revision.

My comments and suggestions for the authors are the following:

- 1. The authors must revise the abstract of the paper and include the main points of the paper.
- 2. The authors should mention the main contribution in the paper. Several researchers have done the same analysis as the authors used in their manuscript.
- 3. The authors should improve the introduction of the paper by adding the following valuable work such as:
- a. Modeling the epidemic trend of middle eastern respiratory syndrome coronavirus with optimal control
- b. Analysis of age wise fractional order problems for the Covid-19 under non-singular kernel of Mittag-Leffler law
- c. Compartmental Analysis of Middle Eastern Respiratory Syndrome Coronavirus Model under Fractional Operator with Next-Generation Matrix Methods
- d. On the analysis of the fractional model of COVID-19 under the piecewise global operators
- e. Fractal fractional based transmission dynamics of COVID-19 epidemic model
- f. Investigation of time-fractional SIQR Covid-19 mathematical model with fractal-fractional Mittag-Leffler kernel
- 1. The authors should write the endemic equilibrium point in one place.
- 2. In theorem 2 the authors should mention the disease-free equilibrium point.....
- 3. The authors should mention where the parameter values are taken.
- 4. How do the authors consider the initial conditions?
- 5. Can the authors explain the biological meaning of the figures?