

Mathematical Model on Impact of Quarantine to control the transmission of Corona Virus Disease 2019 (COVID-19)

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Abstract

The main objective of this research is to study the significant impact of Quarantine on the epidemic of COVID-19 through Mathematical modeling. Diverse cases of person to person transmission and its basic reproduction number has formulated to analyze the dynamics of coronavirus pandemic. Furthermore, the study also emphasizes the effect of quarantine to reduce the transmission, in the wake of lockdown in many countries. An informative graphical representation to notice quarantine versus reduction of infection also included using Matlab and Simulink programming

Keywords: *Coronavirus, Basic Reproduction Number, Quarantine, Lockdown, MATLAB Simulink programming*

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