جامعة الإمارات العربية المتحدة
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The College of Graduate Studies and the College of Science Cordially Invite You to a

Master Thesis Defense

Entitled

Mathematical Modeling of Corona virus in the UAE

By

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Date & Venue

3:00 PM
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F3 Building, Room 040

Abstract

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) is a viral infectious disease that can be transmitted to humans through interaction with infected animals or humans. The Middle East respiratory syndrome (MERS) is still one of the main public health concern Gulf region including United Arab Emirates states. The fact that the diseases have been imported into other parts in the world show the possibility of has a MERS pandemic. In this work, we are aiming to study a mathematical model of the MERS transmission among the UAE population and camels. The goal is to determine what are the paths of communication and find out the best way to control the disease spread. We will calculate the basic reproduction number R0 of the MERS model in UAE, and we will compute disease-endemic equilibrium points. The sensitivity analysis of the basic reproduction number R0 will be performed. Also, we will perform computer simulations to investigate the MERS model.

Keywords: MERS-CoV infection in the UAE, basic reproduction number, numerical analysis, sensitivity analysis.