Engineering Management, Information, and Systems
Seminar Series

Research Seminar

Modeling and Data Analysis for COVID-19 Healthcare Demand Projections in Arizona

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Friday, March 5, 2021
11:00 a.m. – 12:15 p.m.
Zoom link: https://smu.zoom.us/j/95095343594

Abstract: Beginning in March 2020, the U.S. emerged as the global epicenter for COVID-19 cases with little to guide policy response in the absence of extensive

data available for reliable epidemiological modeling in the early phases of the pandemic. While Arizona policymakers relied initially on state-by-state national modeling projections from different groups outside of the state, we sought to create a state specific model using a mathematical framework that ties disease surveillance with the future burden on Arizona's healthcare system. Our framework uses a compartmental system dynamics model using a SEIRD framework that accounts for multiple types of disease manifestations for the COVID-19 infection, as well as the observed time delay in epidemiological findings f