



המכללה האקדמית להנדסה
אורט בראודה

Software Engineering Seminar
November 17th 13:45-14:45- Online -
<https://us02web.zoom.us/j/84619448007>

Agent-Based Simulation of COVID-19 Health and Economical Effects

Dr. Petrônio Cândido L. Silva
MINDS - Machine Intelligence and Data Science Laboratory
UFMG, BH, Brazil

Abstract:

Agent-Based Simulation (ABS) is a good choice to simulate dynamic complex systems due to its simplicity of implementation and accurate results when compared with real data. On the other hand, SIR and SEIR models are commonly used to estimate the time evolution of the COVID-19 disease in epidemiological terms. However, as we add new variables in the simulations, their interactions become more complex and hard to describe in analytical terms. In this presentation, we show how ABS can be employed in the simulation of complex and dynamic scenarios with many interacting epidemiological, social, and economic variables.

Short bio:

Petrônio Cândido L. Silva is a Brazilian professor, developer, and researcher. He has a B.Sc degree in Information Systems(2005), an M.Sc degree in Informatics (2010), and a Ph.D. in Electrical Engineering(2019). Currently, he works in the Federal Institute of Minas Gerais (Brazil) and is a member of MINDS - Machine Intelligence and Data Science Laboratory (at UFMG/Brazil).
<http://petroniocandido.github.io/>