

SYS30000

It's a Complex World: Addressing Global Challenges

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This course uses complex adaptive systems (CAS) to address global challenges like climate change, epidemic diseases, safety and security among the others. Students will explore these issues from various disciplines, including biology, physics, social sciences, and engineering, through case studies and computer simulations. The focus is on understanding the complexity of these challenges and finding solutions, supported by research.

Course Topics:

Introduction to Systems

Modeling and Simulation

Networks

Climate Change: Systems Perspective

Decision making for complex systems

Game Theory

