

**26TH NOVEMBER 2025, 10:30 A.M.
SEMINAR ROOM**

Optimization-based control (e.g., MPC) is a key strategy for managing critical biomedical issues like COVID-19 and Diabetes. While the standard method uses ODEs to formulate optimal control problems, effective modeling requires a deeper formal dynamic analysis.

This includes characterizing stability and applying realistic constraints. Without this essential analysis, interventions will be incomplete and potentially counterproductive, a failure seen during the COVID-19 pandemic.

The ultimate goal is to identify appropriate interventions using formal procedures to ensure the cure is not worse than the disease.

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Dynamic Modeling and Control of Biomedical Systems - Avoiding the Cure Being Worse Than the Disease

DII SEMINAR

