

CHONTITA RATTANAKUL

Research Activities

Areas of Expertise

Nonlinear systems; modelling, analysis and simulation

Current Interests and Activities

My recent and current research activities involve modelling, analysis and simulation of nonlinear systems in the following areas.

1. Calcium homeostasis and bone metabolic diseases such as osteoporosis.
2. Pest management of Thailand's economic crops such as rice, cassava and sugarcane.

Systems of differential equations, delay differential equations and impulsive differential equations as well as cellular automata models are utilized to investigate the problems of interest. Analyses of the system models are based upon theories in differential equations. Numerical methods for differential equations both ODEs and PDEs as well as Monte Carlo simulation technique are frequently used to obtain the simulation results of the system models.