

**School of Computer Science
M.S. Thesis Defense**

**By
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**Analysis of interaction between environmental and
economic models**

ABSTRACT

The most pressing issues of twenty first century are climate change and sustainable development. There is an endless debate going around world about growth and environmental degradation. To formulate better policies towards sustainable growth, we have to understand the interaction dynamics between economic system and environment. In this thesis, we study four different models to better understand the interaction between economy and environment. We have done sensitivity analysis on capital accumulation (K_t) and environmental degradation (S_t) process due to feedback factor (μ), degradation coefficient (a) and cleanup coefficient (b). In the sensitivity analysis, we found that the environment reacts very strong for a feedback from economy initially but it tapers as the feedback factor increase. When the society starts to grow, the repercussion on environment will be high initially but it decrease later.

Date: Thursday, April 28, 2011

Time: 4:00 – 5:30 p.m.

Place: Devon Energy Hall (DEH) Room 151

**Committee members: Dr. S. Lakshmivarahan– Chair
Dr. John Antonio
Dr. Sridhar Radhakrishnan**

Reading Copy available in Computer Science Graduate Assistant's office DEH 105

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