Announcing the Final Examination of Henriette Schoen for the degree of Doctor of Philosophy

Time & Location: April 9, 2018 at 1:00 PM in ENG 2 312 L
Title: IMPROVING THE UNDERSTANDING OF THE INNOVATION ECOSYSTEM: DEVELOPMENT OF A DYNAMIC INNOVATION INDEX

This research's main purpose is to enhance the understanding of the intricacies of what innovation and an innovation ecosystem entail by creating a model platform which represents the present economic situation in regards to innovation in international countries. Modeling the innovation ecosystem is here done by using dynamic variables in the System Dynamics (SD) module from Anylogic, and the goal is creating an innovation index as an outcome. This model has 91 relationships or nodes/variables, and 43 parameters and will calculate the index for 32 chosen countries spread over the current GDP income span.

The model is created as a System Dynamics (SD) model platform. The model has the purpose of analyzing the stronger or weaker interactions between the relationship of innovation and activities that especially has an effect on innovation and other entities in the community or society in positive or negative ways, found in research papers, reports and more. The proposed SD model platform and the expected findings of this simulation were to enhance the understanding of the actual innovation level in a specific country, by taking the existing entrepreneurial culture in the particular country into consideration. Research has shown that the cultural environment is of utmost importance for countries to be innovative (Vieira, Neira, & Ferreira, 2010).

The data used to create the index in this research is retrieved from three different types of data collections; the Global Innovation Index, the Global Entrepreneurship Index, and survey results from the acclaimed book "A World of Three Cultures - Honor, Achievement and Joy."

The result of the SD model is a new index used to evaluate innovation and entrepreneurship in a country and is created with dynamic variables and is therefore called the Dynamic Innovation Index, DII. The DII creates a new perspective for innovation evaluation of global economies.

Major: Industrial Engineering

Educational Career:
Bachelor's of Engineering, BS, 1994, Technical University of Denmark, Lyngby, Denmark
Master's of Engineering, MS, 1998, Technical University of Denmark, Lyngby, Denmark
Master's of Industrial Engineering - Engineering Management, MS, 2006, University of Central Florida, Orlando, Florida

Committee in Charge:
Waldemar Karwowski, Chair, Industrial Engineering & Management Systems
M. Ilhan Akbas, Florida Polytechnic University
Robert Hoekstra, Industrial Engineering & Management Systems
Randall Shumaker, Institute for Simulation & Training

Approved for distribution by Waldemar Karwowski, Committee Chair, on March 26, 2018.

The public is welcome to attend.