

# **Abstract**

**Noha G. Fahmy**

## **Sustainable Recovery Network Design**

Due to the growing concern about sustainability, recovery network design gained increased importance over the last two decades. In order to achieve sustainability the design of the recovery network has to fulfill the different objectives from the economic, social, and environmental perspectives. In this paper a lexicographic mixed integer linear goal programming (MILGP) model is developed to design a multi-commodity recovery network for products of modular structure. Three goals are considered to address economical and environmental issues. The model results in locating facilities in a multi-echelon network and assigning the products to the different end of life (EOL) options.