

## **A Simulation Modeling Approach for Optimization of Storage Space Allocation in Container Terminal**

**Authors :** Gamal Abd El-Nasser A. Said, El-Sayed M. El-Horbaty

**Abstract :** Container handling problems at container terminals are NP-hard problems. This paper presents an approach using discrete-event simulation modeling to optimize solution for storage space allocation problem, taking into account all various interrelated container terminal handling activities. The proposed approach is applied on a real case study data of container terminal at Alexandria port. The computational results show the effectiveness of the proposed model for optimization of storage space allocation in container terminal where 54% reduction in containers handling time in port is achieved.

**Keywords :** container terminal, discrete-event simulation, optimization, storage space allocation

**Conference Title :** ICCIS 2015 : International Conference on Computer and Information Systems

**Conference Location :** London, United Kingdom

**Conference Dates :** January 19-20, 2015