

Design of buffer in automated container terminals through simulation

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Abstract

This study discusses buffer installation in an automated container terminal to resolve the difficulties to which the interaction between external manned vehicles and internal unmanned equipment led. The determination of buffer size and fleet size of material handling equipment is an important issue in design of buffer in automated container terminals. This research deals with the issue of determining buffer capacities through simulation. Using response surface methodology (RSM) for efficient experimentation, the combination of buffer requirement under applicable operational strategies is obtained.