

A. I. Ginnis, K. V. Kostas, C.G. Politis and P.D. Kaklis, 2014, "VELOS - A VR environment for ship applications: current status and planned extensions", Chapter: Virtual Realities, volume 8844 of the series Lecture Notes in Computer Science pp 33-55, Springer

Abstract:

Virtual Environment for Life On Ships (VELOS) is a multi-user Virtual Reality (VR) system that supports designers to assess (early in the design process) passenger and crew activities on a ship for both normal and hectic conditions of operations and to improve the ship design accordingly. Realistic simulations of behavioral aspects of crowd in emergency conditions require modeling of panic aspects and social conventions of inter-relations. The present paper provides a description of the enhanced crowd modeling approach employed in VELOS for the performance of ship evacuation assessment and analysis based on the guidelines provided by IMO's Circular MSC 1238/2007.