1. An airport passenger terminal simulator: a planning and design tool

Hee King Jim (1); Zeph Yun Chang

**Source:** Simulation Practice and Theory, v 6, n 4, p 387-96, 15 May 1998; **ISSN:** 0928-4869; **DOI:** 10.1016/S0928-4869(97)00018-9; **Publisher:** Elsevier, Netherlands

**Author affiliation:** (1) Gintic Inst. of Manuf. Technol., Nanyang Technol. Inst., Singapore, Singapore

**Abstract:** Recent airport capacity studies have indicated that there is an imbalance in passenger terminal, airfield and airspace planning at many major airports. Traditionally, the emphasis has been on airfield and airspace development and analysis. Not much emphasis has been made on passenger terminal design. Therefore, there are many cases around the world exhibiting congestion problems at the airport passenger terminal as the number of air passengers continue to increase. The paper presents a generic simulation model for the final design of airport passenger terminal using the SLAM II Simulation Language. The animation is presented on facility diagram which graphically portrays the layout of passenger terminal. Icons representing the entities of the system (both international and domestic passengers and baggage) are provided. The model has been verified and validated by data obtained from the Singapore Changi Airport. (8 refs)

**Inspec controlled terms:** airports - architectural CAD - computer animation - discrete event simulation - planning

**Uncontrolled terms:** airport passenger terminal simulator - passenger terminal design - airport capacity studies - passenger terminal planning - airfield planning - airspace planning - congestion problems - generic simulation model - SLAM II Simulation Language - animation - facility diagram - graphical passenger terminal layout - icons - Singapore Changi Airport

**Classification Code:** C7460 Aerospace engineering computing - C6185 Simulation techniques - C6130B Graphics techniques - C7440 Civil and mechanical engineering computing

**IPC Code:** G06F17/50 - G06T13/00 - G06T15/70

**Treatment:** Practical (PRA)

**Database:** Inspec

Copyright 1998, IEE

**Data Provider:** Engineering Village