

# **Thresholding Closed Structure Capacity to Facilitate Efficient Evacuation using Crowd Simulation**

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The paper here discusses methods to improve the interactions between the agents and environment to facilitate them reach their target with minimum effort. This will help design a closed system that responds to emergencies by helping agents evacuate the space as early as possible. The end result for this thesis will be a framework which will help us find the maximum capacity of people that may be accommodated in a structure to facilitate fastest evacuations. Path-finding will be implemented for helping an agent to reach its goal by following the shortest path and avoiding all the collisions that come its way. This paper will likewise talk about the crossing point of AI and VE. It considers the utilization of AI as a part of a VE and Intelligent Virtual Agents as a noteworthy application region, covering movement, sensing, behaviour, and control architectures. A smart environment will also be developed which the agent needs to interact or respond to like walls (which can't be passed) or another agent (avoid collision with them).