

Researcher models effects of suicide bombing: results of crowd configurations

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Recent research by Zeeshan-ul-hassan Usmani, a Florida Institute of Technology doctoral student and Fulbright Scholar, indicates that various crowd formations exacerbate or minimize injuries and fatalities in the event of a pedestrian suicide bomb attack.

His work was conducted through virtual simulation. It showed that the crowd formation experiencing the worst effects is a circular one, with a 51 percent death rate and 42 percent injury rate, thus reaching 93 percent effectiveness. A person that is in line-of-sight with the attacker, rushing toward the exit or in a stampede was found to be in the least safe position.

The safest way to stand or sit in a crowd, Usmani found, was in vertical rows.

“Zeeshan is one of the most talented students I have met. His ability to grasp and integrate distinct unrelated topics is impressive,” said Richard Griffith, Ph.D., Florida Tech associate professor and program chair, Industrial/ Organizational Psychology program.

His findings, though preliminary, may have implications for emergency response and counter-terrorism activities. He plans to continue the research, integrating several physical and social variables into the simulation. These include modeling physical objects such as landscape and furniture, and such social variables as crowd behaviors.

“There are many applications for this simulation, from special event planning to emergency response,” said Usmani.

Source: Florida Institute of Technology

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