Los Angeles International Airport uses randomization software to prevent terrorist attack

LOS ANGELES: Security officials at Los Angeles International Airport are using randomization software in an attempt to help prevent terrorist attacks.

Developed by computer scientists at the University of Southern California, the program, called ARMOR, is used to make the placement of security checkpoints random and unpredictable, according to a Friday report in Newsweek magazine.

ARMOR, implemented in August on a trial basis, is designed to thwart terrorist attacks during the early planning stages, as plotters are casing the airport looking for security weaknesses. Security officials use the program to help patrols break predictable behavior patterns.

The software was developed out of an idea by Praveen Paruchuri, a former doctoral student at USC’s Viterbi School of Engineering. Using game theory and artificial intelligence, Paruchuri wrote a set of algorithms to randomize the actions of an "agent," according to his former professor, Milind Tambe. The goal was to find a way for the "agent" to react to an adversary who has perfect information about the agent's actions.

"He was able to come up with the fastest algorithm that solves the kind of random problems given to us by LAX," Tambe said. "And we're able to say, here is the kind of solution you should
Seeking to improve security following the Sept. 11, 2001 terrorist attacks, airport officials were looking for new approaches. After a presentation by the USC scientists last April, students spent the summer entering classified data about the airport's facilities into the program, and ARMOR was implemented in August.

ARMOR is believed to be the first software program of its kind used at an airport.

Milind said the program could eventually be expanded to assist airport officials in a number of different ways but he declined to be specific, citing security concerns. A call to airport officials was not immediately returned Friday night.