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**Airport Security Analysis through Simulation Modeling and
Information Reuse**



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ABSTRACT: Airport security is a critical issue for many countries and numerous security measures have been implemented to protect passengers, staff and aircraft. While individual subsystems are being enhanced in the hope of improving the overall security, i.e. the use of EDS (Explosive Detection Systems) in baggage handling systems, a holistic view is required of such a complex environment. This talk will focus on the importance of information reuse, simulation modeling and analysis of airport operations in providing a greater understanding of airport security.

About the Speaker: Saeid Nahavandi received his BSc (Hons), MSc and PhD in Control Engineering from Durham University, UK in 1985, 1986 and 1991 respectively. Saeid is an Alfred Deakin Professor and the Director for the Centre for Intelligent Systems Research at Deakin University in Australia. Professor Nahavandi is a Fellow member of IET, IEAust and Senior Member of IEEE and has published over 450 refereed papers and been awarded several competitive Australian Research Council (ARC) grants over the past five years. He received the Research collaboration / initiatives award from Japan (2000) and Prince & Princess of Wales Science Award in 1994. He won the title of Young Engineer of the Year Award in 1996 and holds two patents. In 2002 Professor Nahavandi served as a consultant to the Jet Propulsion Lab (NASA) during his visit to JPL Labs. In 2006 he received the title of Alfred Deakin Professor, the highest honour at Deakin University for his contribution to fundamental research.

Professor Nahavandi is the founder of the Centre for Intelligent Systems Research with 55 full time researchers at Deakin University. In modelling and simulation of complex systems he received awards from several organisations to focus on simulation based optimization of manufacturing processes, airport operations, logistics and distribution centres. He has carried out industry based research with several major international companies such as GM, Ford, Holden, Nissan, Bosch, Futuris, Boeing, Vestas just to name a few. For his contribution in haptics and robotics he won two major research grants from the Australian Department of Defence on haptically enabled counter explosive robot design.

Professor Nahavandi has been the chairman of eight International conferences and the General Chair and Co-Chair for the World Manufacturing Congress series and the International Congress on Autonomous Intelligent Systems and IEEE SMC 2011. He also holds the position of Editor for the International Journal Intelligent Automation and Soft Computing (South Pacific region), International Journal of Computational Intelligence, Editorial Board member for International Journal of Intelligent Mechatronics and Robotics (IJIMR) and Associate Editor for IEEE Systems Journal, International Journal of Innovative Computing & Information Control.