

Competency assessment and human performance of X-ray screeners

Original title / Originaltitel

Kompetenz- und Leistungsmessung von Luftsicherheitsbeauftragten

Summary / Zusammenfassung

The relevance of human factors in aviation security has increased dramatically in recent years. One of the most important tasks is the visual inspection of passenger bags using x-ray machines. In this project we use modern detection theories to measure competency and performance of airport security x-ray operators with computer-based tests and threat image projection technology.

Weitere Informationen unter www.psychologie.unizh.ch/vicoreg/research/

Publications / Publikationen

Ghylin, K.M., Drury, C.G., & Schwaninger, A. (2006). Two-component model of security inspection: application and findings. 16th World Congress of Ergonomics, IEA 2006, Maastricht, The Netherlands, July, 10-14, 2006. [PDF]

Koller, S., & Schwaninger, A. (2006). Assessing X-ray image interpretation competency of airport security screeners. Proceedings of the 2nd International Conference on Research in Air Transportation, ICRAAT 2006, Belgrade, Serbia and Montenegro, June 24-28, 2006, 399-402. [PDF]

Hofer F., & Schwaninger, A. (2005). Using threat image projection data for assessing individual screener performance. WIT Transactions on the Built Environment, 82, 417-426. [PDF]

Schwaninger, A. (2005a). Objekterkennung und Signaldetektion. In: B. Kersten (Ed.), Praxisfelder der Wahrnehmungspsychologie (pp. 108-132). Bern: Huber. [PDF]

Schwaninger, A., Bridges, A.P., Drury, C., Durinckx, F., Durrant, P., Hodge, T., Hofer, F., Jongejan, R., Maguire, R.L., McClumpha, A., Neiderman, E., Steinmann, C., Wüest, W. (2005). Principles and Requirements for Assessing X-Ray Image Interpretation Competency of Aviation Security Screeners. White Paper, International Aviation Security Human Factors Technical Advisory Group (InterTAG), Competency Assessment Working Group (CAWG).

Hofer, F. & Schwaninger, A. (2004). Reliable and valid measures of threat detection performance in X-ray screening. IEEE ICCST Proceedings, 38, 303-308. [PDF]

Schwaninger, A. (2003a). Reliable measurements of threat detection. AIRPORT, 01/2003, 22-23. [PDF]

Weitere Informationen unter www.psychologie.uzh.ch/vicoreg/publications/index_byarea.htm

Keywords / Suchbegriffe

Airport security human factors, signal detection theory, x-ray image interpretation

Project Leadership and Contacts / Projektleitung und Kontakte

Dr. A. Schwaninger (Project Leader)

Other Links to external Webpages / Andere Links zu externen Webseiten

<http://www.psychologie.unizh.ch/vicoreg/>

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EU, Others

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