

Concealed Objects Detection in Visible, Infrared and Terahertz Ranges

Authors : M. Kowalski, M. Kastek, M. Szustakowski

Abstract : Multispectral screening systems are becoming more popular because of their very interesting properties and applications. One of the most significant applications of multispectral screening systems is prevention of terrorist attacks. There are many kinds of threats and many methods of detection. Visual detection of objects hidden under clothing of a person is one of the most challenging problems of threats detection. There are various solutions of the problem; however, the most effective utilize multispectral surveillance imagers. The development of imaging devices and exploration of new spectral bands is a chance to introduce new equipment for assuring public safety. We investigate the possibility of long lasting detection of potentially dangerous objects covered with various types of clothing. In the article we present the results of comparative studies of passive imaging in three spectrums - visible, infrared and terahertz

Keywords : terahertz, infrared, object detection, screening camera, image processing

Conference Title : ICSDCI 2014 : International Conference on Sustainable Development of Critical Infrastructure

Conference Location : Barcelona, Spain

Conference Dates : October 27-28, 2014