

ISRP 2002 abstract

Presenter/author	Title	Abstract
Hindmarsh, Chris J. Pears, Laurence A. Richardson, Grant S. <i>DSTL, Porton Down, Salisbury, Wilts., UK</i>	3D Scanning Applications Relevant to Respirator Development	Currently, owing to economic demands, all military and commercial respirator systems are supplied in a restricted number of sizes. A consequence of this is that the quality of the face seal fit is variable across the user population and, in some instances the desired degree of seal is not achieved. With the recent advent of 3D scanning technology the possibility of constructing a respirator face seal tailored to the contours of an individuals face has become a reality. Over the last six months Dstl has pursued this goal and has succeeded in constructing a bespoke face seal. The process adopted to determine the optimum seal design is presented together with details of the seal construction and the final system evaluation. Further applications relevant to respirator development are discussed together with future aspirations.