

Breakthrough in split second 3D face imaging

March 24 2006

Face recognition technology that could revolutionise security systems worldwide has been developed by computer scientists at Sheffield Hallam University. The new specialist software can produce an exact 3D image of a face within 40 milliseconds.

Other 3D systems that have been trialled have proved unworkable because of the time it takes to construct a picture and an inaccurate result.

The ground-breaking invention, by experts in the University's Materials and Engineering Research Institute (MERI) was tested by Home Secretary Charles Clarke on a recent visit to Sheffield. It could be used for tighter security in airports, banks, and government buildings and ID cards.

The breakthrough comes days after MPs backed the compromise plans for identity cards, meaning from 2008 people applying for a new passport will also get an identity card, with their biometric details stored on a central register.

The new technology works by projecting a pattern of light onto the face, creating a 2D image, from which 3D data is generated. Biometric features are extracted by a 'parameterisation' process, giving a digital mapping of a face that would form part of a fool-proof security system.

MERI's Professor Marcos Rodrigues said: "This technology could be

used anywhere there is a need for heightened security. It is well suited to a range of applications including person identification from national databases, access control to public and private locations, matching 3D poses to 2D photographs in criminal cases, and 3D facial biometric data for smart cards such as ID and bank cards. We have developed a viable, working system at the cutting edge of 3D technology.”

Source: Sheffield Hallam University

Citation: Breakthrough in split second 3D face imaging (2006, March 24) retrieved 3 August 2024 from <https://phys.org/news/2006-03-breakthrough-3d-imaging.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.