

The new face of identity protection: You

Trying to remember dozens of personal identification numbers (PIN), passwords and credit card numbers may not be necessary for much longer, thanks to a University of Houston professor and his team.

Taking a radically new approach, UH Eckhard Pfeiffer Professor Ioannis Kakadiaris and his Computational Biomedicine Lab (CBL) developed the URxD face recognition software that uses a three-dimensional snapshot of a person's face to create a unique identifier, a biometric.

Shown in government testing to be tops in its field, URxD can be used for everything from gaining access to secure facilities to authorizing credit card purchases. The identification procedure is as effortless as taking a photograph.

URxD leads the pack for 3D face recognition solutions based on the face's shape, according to the results of the Face Recognition Vendor Test (FRVT 2006). The National Institute of Standards and Technology conducted the rigorous testing for FRVT 2006, which was sponsored by several U.S. government agencies. FRVT 2006 is the first independent performance benchmark for 3-D face recognition technology.

"Accuracy is the name of the game in 3-D face recognition," Kakadiaris said. "What makes our system so accurate is the strength of the variables that we use to describe a person's face.

"Remembering dozens of personal identification numbers and passwords is not the solution to identity theft. PINs and passwords are not only inconvenient to memorize, but also are impractical to safeguard. In essence, they merely tie two pieces of information together; once the secret is compromised, the rest follows. The solution is to be able to tie your private information to your person in a way that cannot be compromised."

The software and technology also could play a role in national security.

"With the growing concern for security at the personal, national and international level, the University of Houston is pleased that Dr. Kakadiaris and his team have demonstrated a very promising technology for personal identification," said John Warren, UH associate general counsel for research and intellectual property management. "We look forward to its adoption by government and industry."

URxD inventors are hoping for corporate interest in bringing the technology, now at the advanced prototype stage, to the marketplace.

"This technology will have a positive impact on some of today's hottest issues," Kakadiaris said. "Imagine a day when you simply sit in front of your computer, and it recognizes who you are. Everything will be both easier and more secure, from online purchases to parental control of what Web sites your children can visit."

Source: University of Houston

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