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## ...DoS facial recognition

According to the DoS, the addition of facial recognition technology is expected to help facilitate its fraud detection goals in the area of travel document issuance. It will be used in the following ways:

- the automated detection of applicant fraud through a one-to-many matching of the submitted photo with those already in the database;
- the verification of the identity of an applicant for visa renewal through the one-to-one matching of his or her submitted photo with one already in the database;
- the detection of wanted or missing persons through the one-to-many matching of submitted photos against a limited "watch-list" of images.

This deal comes hot on the heels of a five-year blanket purchase agreement from the US Department of Homeland Security for Identix's live scan systems, and stock markets reacted favourably to the news with a hike of approximately 18% following the announcement.

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## IRIS RECOGNITION

# Iris recognition industry in flux

**The well-publicised falling out over licensing agreements between LG Electronics and Iridian Technologies continues to rumble on, but a long-standing patent dispute between Iridian and South Korean company IriTech now appears to be at an end. Meanwhile, a new entrant to the iris recognition algorithm market – Smart Sensors – made itself known at the recent Biometrics 2004 show in London.**

IriTech had been facing litigation since November 2002 from Iridian Technologies, which had brought cases in the USA and UK. These have now both been resolved, IriTech said in a statement, with agreement being reached in April this year surrounding the US patent dispute and in June for the UK case. The terms of the settlement were not disclosed. IriTech's own patents last until 2019.

The algorithm developed by IriTech is claimed to address many of the difficulties in iris identification caused by poor input

images that can arise in various adverse conditions. According to IriTech CEO Daniel Kim, the company uses a variable multi-sector analytic method that selectively uses only the good portions of the captured image. "Even if the image of the eye is adversely affected by eye glasses, contact lenses, tears, eyelids, or eyelashes, IriTech's technology can operate with no discernible performance degradation as long as at least 50% of the image sectors are good at the time of registration and at least 25% are good at the time of identification," Kim claims. IriTech offers its technology through a number of hardware and software product offerings with *Iris 2000* being the company's standard software application.

UK-based Smart Sensors has developed and applied for patents on new algorithms for iris code extraction, biometric key creation and matching for use in both one-to-one verification and one-to-many identification applications. The company

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## Comment

The news this month has been full of the ups and the downs of the iris recognition industry – we've had stories of spoofing, patent disagreements, settlements and more.

At the heart of the matter is the main patent holder Iridian Technologies. Protective of its patents (one of which runs out in the USA in February 2005), entering the market is hard. One such company just announced its presence at the Biometric 2004 event in London – Smart Sensors (see p1) – only to be lambasted by officials from Iridian. It won't be surprising if a threatening letter soon hits its doormat as it did at South Korean company Iritech a number of years ago – a disagreement which has just incidentally been resolved.

There is no denying that iris recognition is the most accurate biometric technology, it is relatively inoffensive to the user and many regard it as having potential. However, the

lack of market competition is seen as a drawback and has almost suffocated the market to date. It is therefore unfathomable why Iridian does not welcome competition with open arms. After all it has had many years head start and so should have little to fear, but would do itself the favour of dispelling the fears of some that locking into one dominant algorithm provider is unhealthy. (One should note here that Iridian has made patent concessions in the area of machine readable travel documents.)

Irrespective of the reasons, Iridian's current falling out with LG Electronics is also extremely bad timing. Just as everyone at Biometrics 2004 was extolling the virtues of LG's technology – which includes many effective spoofing countermeasures – Iridian maintains that it has dropped the company from its list of licensees.

Iridian surely cannot expect the technology to get the widespread success it deserves if it continues to operate in such a manner.

*Mark Lockie*

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### In next month's issue

In next month's issue of *Btt* we will turn our attention to the office environment – from the door to the desktop. With recent surveys showing that many companies are extremely interested in the technology we assess the likelihood of whether office workers will be using this technology any time soon.

Plus all the regular sections, including news, comment, features and in-depth business analysis.

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## ...Iris recognition industry in trouble?

claims that the techniques offer a strong alternative to other commercial iris recognition algorithms.

The company is a joint venture between Professor Don Monro at Bath University and Martin George, the founder of ID Craft, and a number of researchers are now engaged in developing the technology.

Smart Sensors is aware of the potential patenting issues surrounding its new technology, but claims that the key *Flom and Safir* patent runs out in February 2005 in the USA. George told *Btt*, "We've taken advice from patent attorneys, who advise us that we don't infringe upon Professor John Daugman's methods which are currently owned by Iridian. If the market for iris recognition is going to open up then a competitive landscape is needed. Just to be clear, however, we are only selling the iris recognition engine, not an overall system or hardware. Any future partners we have would need to be aware of Iridian's, as well as others', additional patents in these areas."

The company is now seeking potential licensees, investors and other technical/commercial partners with whom it can work to package the new algorithms with standard iris image capture hardware, and integrated biometric systems.

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### IT SECURITY

## IBM puts fingerprint into ThinkPads

**IBM is to integrate fingerprint recognition technology into its latest range of ThinkPad notebooks. The technology, to be supplied by UPEK, will be located on the wrist rest below the arrow keys, allowing users to swipe their finger across a small horizontally-oriented sensor when logging-on to their systems, software applications, web sites, or databases.**

The silicon-based stripe-sensor, which is to be built into select models of the manufacturer's *ThinkPad T42* model, links to an embedded security subsystem, so providing a layer of security that is built in, rather than just being bolted on.

The ThinkPad T42 notebook began selling in mid October, and models with a fingerprint reader started at US\$1,699.

The decision by IBM to integrate fingerprint technology is a strong endorsement of the maturity of the technology, commentators told *Btt*, and could be a significant deal for UPEK.

UPEK is a privately-held biometric fingerprint solutions company launched as a venture-backed spin-off from STMicroelectronics in March this year. The fingerprint solutions offered by UPEK under the *TouchChip* brand have been shipping in volume since 1999 and have been integrated into a variety of commercial applications.

While this latest deal with IBM may be its highest profile to date, there have been a range of other laptop providers integrate the technology. For example, in May last year STMicroelectronics and MPC announced that MPC's notebook computers, the *TransPort T2100* and *T2000*, would incorporate fingerprint technology. Even earlier, ST announced it would supply biometric hardware and software for a Samsung's laptop – the *Sense 950* in South Korea and *GT9000 Series* elsewhere – in November 2001.

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### BANKING

## Malawi bank to use fingerprints...

**The Reserve Bank of Malawi is to install a fingerprint recognition system that secures the issuance of bank cards and e-purses across the country. The biometric solution secures banking titles and rights by verifying the applicant's identity and checks that the individual is not known under another name in the system.**

The main supplier on the project is Sagem, which will provide an automated fingerprint identification system (AFIS) specially designed for the banking application.

Some 400,000 biometric cards have already been issued in Malawi for uses such as clearing funds, salary payment and day-to-day expenses. According to Sagem, the benefits of the system are numerous, particularly for a developing country with a newly developed banking network. These include: