

Télécom SudParis and IDEMIA present BioDigital, a new biometric technology to combat identity spoofing

Following an 18-month collaboration agreement, Télécom SudParis and IDEMIA, the global leader in Augmented Identity, have finalised the design of a contactless biometric reader, based on a patent filed by two Télécom SudParis researchers. The transfer of technology to IDEMIA is now completed.

ACCESS CONTROL

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Fingerprint spoof detection



The technology involves a new generation digital fingerprint reader known as **BioDigital**. It provides an effective defence against identity spoofing, but also offers a solution to the difficulties inherent in the very nature of biometric data, achieving improved recognition of damaged fingerprint surfaces.

The close cooperation between Télécom SudParis and IDEMIA, as part of which the Group provided an assessment algorithm and created a database for its evaluation, was able to demonstrate that BioDigital is capable of providing safer and more effective fingerprint matching, with a success rate bordering on 100%.

Subcutaneous fingerprint and pore network recognition

This contactless technology recognises not only the fingerprint itself, but also the subcutaneous print and the network of sweat pores. It relies on optical coherence tomography (OCT), a technique that produces 3D images from "echoes" of backscattered light. BioDigital thus offers access to fingerprints without direct contact with the reader. This innovative new feature is also accompanied by outstanding image reconstruction quality.

Thanks to the merging of phase and intensity images, we have succeeded in obtaining the most natural image possible.

Yaneck Gottesman, a research fellow at Télécom SudParis

The real originality of our technology lies in the quality of the reconstructed image of the internal fingerprint.

Bernadette Dorizzi. Dean of Research at Télécom SudParis

On a certain number of critical applications such as the protection of sensitive infrastructure, the issue of such spoofing attacks is very real, and it is a race between hackers and tech developers like IDEMIA. This technology, once rolled out and integrated into our products, has the potential to put us another length ahead.

Jean-Christophe Fondeur, Executive Vice-President for R&D Activities at IDEMIA

About IDEMIA - OT-Morpho is now IDEMIA, the global leader in Augmented Identity, with the ambition to provide a secure environment enabling citizens and consumers alike to perform their daily critical activities (such as pay, connect, travel and vote), in the physical as well as digital space.

Securing our identity has become mission critical in the world we live in today. By standing for Augmented Identity, we reinvent the way we think, produce, use and protect this asset, whether for individuals or for objects. We ensure privacy and trust as well as guarantee secure, authenticated and verifiable transactions for international clients from Financial, Telecom, Identity, Public Security and IoT sectors.

OT (Oberthur Technologies) and Safran Identity & Security (Morpho) have joined forces to form IDEMIA. With close to \$3 billion in revenues and 14,000 employees around the world, IDEMIA serves clients in 180 countries.

For more information, visit www.idemia.com / Follow @IdemiaGroup on Twitter

About Télécom SudParis – www.telecom-sudparis.eu - Télécom SudParis is a leading French engineering school (grande école), widely recognised at the highest level of digital sciences and technology.

The quality of its courses is founded on the scientific excellence of its faculty and a learning approach that focuses heavily on team-based projects, disruptive technology and entrepreneurship. Télécom SudParis is part of IMT (Institut Mines-Télécom), the leading network of engineering schools in France, under the governance of the minister responsible for industry. It shares an international campus with Institut Mines-Télécom Business School. Télécom SudParis currently has 1,000 students enrolled, including 700 student engineers and close on 180 doctoral students.

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