

Spoof Proof

Liveness Detection Technology



Machine learning paired with NEC's renowned facial recognition technology now enables immigration authorities and other users to detect people who may not appear as who they are in front of a camera. It knows when they are trying to fool a facial recognition system.

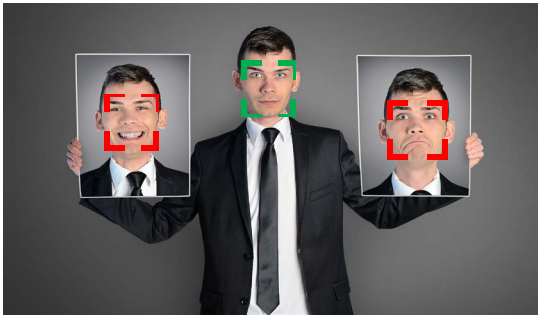
The Technology

With decades of working closely with immigration and homeland security, NEC has finetuned its technologies for real-time face-scanning.

Using machine learning, NEC is inherently smarter at spotting a "fake" face than other solutions that require expensive and proprietary technology setups. NEC does not require customers to use expensive equipment. Being software-based, our AI solution is able to perform on different hardware.

Already being used in Hong Kong, NEC's Liveness technology can be deployed for border control and a wide variety of other uses. In an airport, it can be used in access control to allow only persons with a valid passport to pass through. At an ATM machine, it can be used as an additional way to authenticate a user. The technology is versatile and scalable.

Why NEC?



NEC’s technology acts like a human eye – and more. It is able to detect persons wearing masks or trying to fool a camera with a picture of someone else. In independent tests conducted by the United States government over the years, NEC has been significantly ahead of other providers in terms of accuracy and speed – two key factors of success for facial recognition.



Since it is trained to detect fake faces, NEC’s technology works with different types of hardware. With regular cameras, it can detect photos put up in front of a camera, as well as silicone masks worn by persons trying to evade regular facial recognition technology. It can discover 3D animation played back on a screen as well.



NEC has the world’s fastest and most accurate face recognition.* This new technology adds to that. NEC approached companies manufacturing realistic latex masks for big budget Hollywood movies to test the technology, and NEC’s technology was able to detect that someone was wearing a mask, even when human eyes could not detect the difference from video footage.

The Benefits

Currently, NEC’s renowned facial recognition system sets the benchmark for the industry. It is recognised as the highest quality system yet developed for the market, providing the most accurate and fastest results for offline video face search and high-volume photo face search*.

NEC’s latest innovation complements NEC’s well-recognised facial recognition technology. Together, the two can verify that a user is truly who he claims he is. It fills the gap on what existing technology falls short of, by adding a much-needed functionality to defeat counter-measures against well-established facial recognition practices.

* NEC ranked No.1 several times as the world’s most accurate face recognition technology in vendor tests conducted by the US National Institute of Standards and Technology(NIST). The evaluation results do not represent recommendations by the US government for specific products.

Talk to us about your needs today. Contact us at +65 6273 8333 or sg_marketing@nec.com.sg.

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