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# BrainChip Launches New AI-powered Software that Accelerates Pattern Search and Facial Classification

**Software aids law enforcement and intelligence organizations to rapidly search vast amounts of video footage to identify patterns or faces**

ALISO VIEJO, CA -- (Marketwired) -- 07/19/17 -- BrainChip Holdings Ltd., (ASX: BRN) ("BrainChip" or "the Company"), a leading developer of software and hardware accelerated solutions for advanced artificial intelligence and machine learning applications, today announced the release of its new software product, BrainChip Studio.

BrainChip Studio is the result of more than 10 years development and uses an artificial intelligence technology called a spiking neural network, a type of neuromorphic computing that simulates the functionality of the human visual tract. Powered by this technology, BrainChip Studio aids law enforcement and intelligence organizations to rapidly search vast amounts of video footage for identifying patterns or faces.

Because faces are potentially a uniquely identifying feature, the software includes advanced facial detection, extraction, and classification algorithms. The spiking neural network technology enables BrainChip Studio to work on low resolution video and requires only a 24x24 pixel image to detect and classify faces.

In a recent field trial, BrainChip Studio detected, extracted and classified in real-time more than 500,000 facial images during 3 1/2 hours of video across eight different cameras. In a separate trial, it processed 36 hours of recorded video in less than two hours, extracting over 150,000 facial images.

There is a large market opportunity for this type of software given there has been little increase in the ability to analyze video despite the massive growth in video surveillance -- driven by increases in crime and terrorism -- and an exponential growth in the storage of video data.

"According to IHS market research, 197 million surveillance cameras will be sold during 2017. This is in addition to the estimated 300 million cameras already in use," said Robert Beachler, BrainChip's Senior Vice President of marketing and business development.

"BrainChip Studio's forensic search capabilities tames this massive amount of video information, making it practical for a single individual to search for exactly what they need across multiple video sources."

BrainChip Studio's spiking neural networks can be trained on a single image in milliseconds, enabling rapid searches of video for patterns not known *a priori*. This technology has the added benefit of being able to recognize patterns in low-resolution, noisy environments, making it ideal for the large amount of previously installed video surveillance systems.

"Unlike current convolutional neural network technologies that require extensive pre-labelled datasets and expensive cloud-based training and acceleration, BrainChip's spiking neural network can be implemented in software with traditional CPUs and trained on-premise," said Peter van der Made, BrainChip's founder and CTO.

"Therefore, BrainChip Studio can be deployed in the field in highly secure environments that may not have cloud connectivity."

BrainChip Studio software runs on Windows or Linux computing platforms, and is compatible with all major encoded video formats. It is currently available for trials to select law enforcement and intelligence agencies. For more information please visit: [www.brainchipinc.com/products](http://www.brainchipinc.com/products).

## **About BrainChip Holdings Ltd. (ASX: BRN)**

BrainChip Holdings Ltd. is a leading provider of software and hardware-accelerated solutions for Advanced Artificial Intelligence and Machine Learning applications. The Company has developed a revolutionary new spiking neural network technology that can learn autonomously, evolve and associate information just like the human brain. The technology, which is proprietary, is fast, completely digital and consumes very low power. The Company provides software and hardware solutions that address the high-performance requirements in Civil Surveillance, Gaming,

Facial Recognition and Visual Inspection systems. [www.brainchipinc.com](http://www.brainchipinc.com).

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