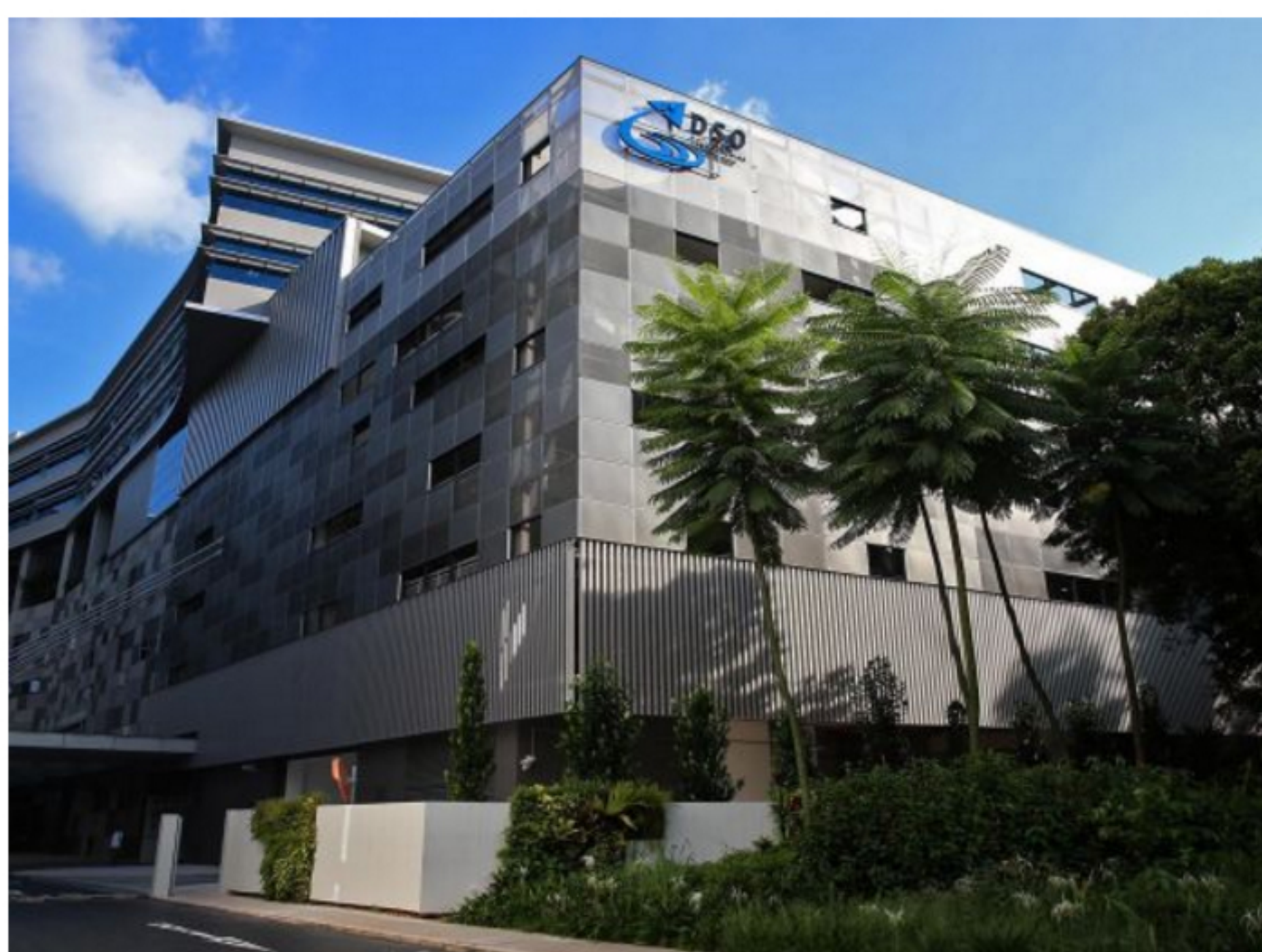


DSO engineers building system that detects fake news



The DSO Complex houses The Playground, a space where employees converge to explore ideas and test them through quick simulation and prototyping. Photo: Wee Teck Hian

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SINGAPORE — To address the threat of “fake news”, the DSO National Laboratories is developing an artificial intelligence (AI) system to determine the authenticity of news using crowd sourcing, content analysis and source profiling.

Typically, verification of news could take up to five days, but DSO is seeking to complete the process in all of two hours.

The system is one of several AI-centric innovations developed at a new space in the Defence Ministry’s research-and-development arm.

Opened officially on Friday (Apr 21), the DSO Complex — the sprawling new home of the labs — houses The Playground, a space where employees converge to explore ideas and test them through quick simulation and prototyping.

There are no commercial solutions on the market now to call out fake news quickly.

Using AI tools developed internally, the system being developed makes use of crowd-sourcing, for instance, for detection. Instead of relying solely on the number of reviewers to raise a red flag over a piece of news, it also banks on content analysis, evaluating the responses from the community in real time.

As for visuals, the team — which began developing the system’s components two or three years ago — hopes to tap image analytics to determine the authenticity of photos and videos posted online. The system also uses natural language-processing techniques to compute similarities in content among online posts, to trace the posts to their origins.

Using AI, it would then deduce the source’s credibility from the author’s previous posts, for instance.

Asked why they are developing this system, Ms Serene Yeo, 25, a DSO research engineer and member of the work team, said that there have been instances of fake news circulating in Singapore, although it was not on a scale as large as that seen overseas.

“Fake news can weaken a country if everybody really believes in it,” she added.

For the moment, DSO cannot say when and how the system would be rolled out, although plans are being discussed.

Other initiatives being developed at The Playground include a target-centric counter-terrorism dashboard.

With social media being tapped increasingly to spread extremist ideology, the dashboard incorporates AI-driven analytics, including social-network analysis to discover potential terrorists as well as targeted-sentiment analysis to uncover an individual’s stance on extremist ideology.

The system analyses, among other things, social media relations to detect and profile suspected extremists.

Another initiative — video analytics — allows operators to identify and monitor suspicious individuals in various locations through tens of thousands of closed-circuit TV cameras. Besides detecting elements such as an individual’s gait and clothing, it can also track inanimate objects such as vehicles.