複合式地震速報平台

Hybrid earthquake early warning system cloud platform

執行單位：國家實驗研究院國家地震工程研究中心

國震中心發展複合式地震速報服務，將國震中心地震速報主站與氣象署區域型強震警報整合，距震央 10～100 公里島內區域，能提供 3～15 秒的預警時間。有了預警時間要如何達到有效告警，透過複合式地震速報雲端平台將警訊與受影響的行政區範圍轉發給產業，由產業利用此警訊來發展的告警與自動控制設備來因應不同場域所需之應用，降低地震帶來的二次傷害，讓地震預警不再是手機收到國家級警報通知，還可以依據不同環境場域提供多元的示警與減災應用。

在現場展示 2022 年 0918 池上地震與 2025 年 0121 嘉義大埔地震，可以了解複合式平臺預警資訊時序與實際應用產品連動。地震防災期許更多產業的加入，可應用發展不同類型需求之地震示警服務，讓民眾在地震發生時可以安心避難，已導入使用之企業也減少地震帶來的人物損失。

NCREE has developed a Hybrid earthquake early warning system (EEWS) by integrating on-site EEWS from NCREE and regional EEWS from Central Weather Administration (CWA). Within a 10 to 100-kilometer radius from the earthquake epicenter in the local region, this system can provide 3 to 15 seconds of warning time. To achieve effective alerts with the available warning time, the utilization of a Hybrid EEWS cloud platform is crucial. This platform facilitates the transmission of alerts and the affected administrative regions to various industries. Industries, in turn, leverage these alerts to develop warning systems and automated control devices tailored to meet the specific requirements of different environments. This approach aims to minimize secondary damages resulting from

earthquakes, transforming EEWS beyond being notifications received Presidential Alert on mobile phones. Instead, it offers a multi-faceted alerting and disaster reduction application system tailored to different environmental settings.

The onsite exhibition showcases the September 18, 2022, Chihshang Earthquake and the January 21, 2025, Dapu Earthquake, demonstrating the sequential pre-warning information from the integrated platform and its real-world applications. Earthquake disaster prevention aims to encourage more industries to participate in developing diverse earthquake early warning services tailored to different needs. This enables the public to take timely protective actions during earthquakes, while businesses that have adopted these solutions can minimize losses in both personnel and assets.