

# Hong Kong Observatory awarded in Hong Kong ICT Awards 2019

The Hong Kong Observatory (HKO) won the Smart Business Grand Award and the Smart Business (Solution for Business and Public Sector Enterprise) Gold Award of the Hong Kong ICT Awards 2019 announced on April 4 with the nowcasting system that it developed in-house.

The nowcasting system is called SWIRLS (Short-range Warning of Intense Rainstorms in Localized Systems). Adopting computer vision and a deep learning model, the system makes use of weather observations from radars, lightning sensors and rain gauges to provide timely and effective forecasts of rainfall and lightning, which supports the HKO's operation of rainstorm forecasting and warning services. The real-time automatic nowcasts are made available through the "MyObservatory" mobile app and website. Members of the public can utilise the information to take precautionary measures ahead of severe weather to reduce damage. The rainfall nowcasts are provided to the Civil Engineering and Development Department, the Drainage Services Department and the Water Supplies Department to mitigate landslides, improve works efficiency, enhance ecology and preserve fresh water. The HKO also shares the source code of SWIRLS with other regions to promote the leading role of Hong Kong in scientific research on nowcasting techniques and applications in weather services.

The awards further recognise the work of the HKO, which received the Award of the Year in the Hong Kong ICT Awards 2009 with its LIDAR Windshear Alerting System.

The "MyFlightWx" electronic flight bag application developed by the HKO was also awarded a Certificate of Merit in the Smart Mobility (Smart Transportation) Award of the Hong Kong ICT Awards 2019. "MyFlightWx" provides pilots with weather information before take-off and during the flight using a geographical information system. Through presenting weather information graphically, the application enables pilots to access and assimilate information through the interactive interface more conveniently, thereby promoting aviation safety awareness and efficiency. The HKO is the first meteorological authority in the world to provide such services. "MyFlightWx" is pending official approval from the Civil Aviation Department before it can officially be used in flights.

