MACCAFERRI

CASE HISTORY

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HELLOMAC TRIAL PROJECT
HONGKONG, SAI KUNG, HONG KONG

Dynamic Barriers

Problem

Given Hong Kong's geographical setting and urban landscape, rockfall risk is an ongoing concern for the city. The region's steep slopes and frequent heavy rainfall events contribute to soil erosion and instability, making rockfalls a recurring concern.
Rockfall barriers are essential protective structures in Hong Kong. These barriers are engineered to absorb and redirect the energy of falling rocks, preventing potential damage to roads, buildings, and other infrastructure.
Due to the frequent rockfall events, it is necessary to have an alarming system which can warn before the event so that the suitable measures can be taken up and hazard can be avoided.

Solution

Rockfall barriers need to be monitored for maintenance purposes that can be cumbersome especially if the barriers are located in remote and difficult to access places. In addition to this, maintenance crews need to also have real-time capabilities to detect rockfall in order to activate emergency traffic safety measures such route diversion or to stop traffic access to hazard areas once rockfall impacts against rockfall barriers or drapery systems are detected. These can be provided to maintenance crews through the latest state of the art alert system from Maccaferri called HELLOMAC. CEDD, govt of HonKong decided to do the trial project with HelloMac system and validate it to use for all such rockfall barriers in order to handle the rockfall events in efficient way.

Maccaferri HELLOMAC alert system provides transportation infrastructure asset owners the way to effectively utilize their resources in the detection of boulder impacts on rockfall barriers. This would ensure faster assessment of the impacted barrier and subsequent facilitates the implementation of remedial works in an effective and timely manner.
HalloMac has been installed on Maccaferri flexible Rockfall barrier RB1500 in two different locations. The barrier is 70m long and 4m high. Each span of the barrier is 10m long. The manual trial is done every month to ensure that the system is working fine. For the trial, HelloMac leg is pulled to simulate the rockfall impact. The effect of impact is monitored on online portal all the time.

Client: CEDD, Govt. of HongKong
Designer / Consultant: Macaferri
Contractor: G and E pvt ltd
Products used (Qty.)
- HELLOMAC 2nos

Date of construction: 08/2023 - 09/2024

Google Maps Google Earth



Location of HelloMac


HelloMac installed on barrier post



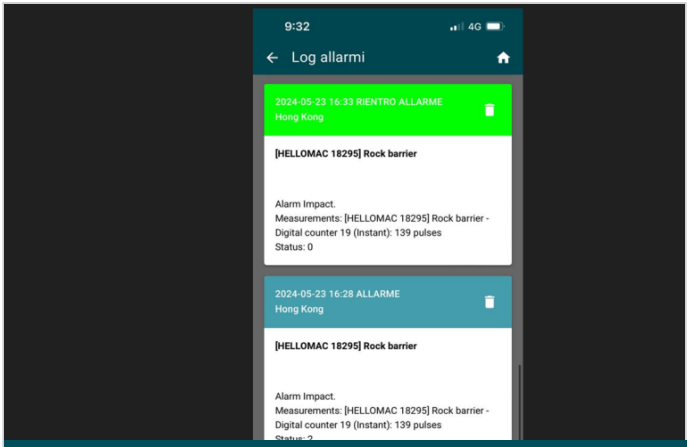
Hubir



Manual trial



Manual trial



Alarm Notification on Mobile app

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