

Lion Rock Tunnel: Pioneering Deep Learning on the Edge in Hong Kong

Lion Rock project will be the first project in HK to use Citilog 2024R2 with deep learning on the edge. Lion Rock Tunnel consists of 1 northbound tunnel with 2 lanes and a length of 1.41km and a southbound tunnel with 2 lanes with a length of 1.43km. This project is a total refresh of the TCSS and AID system.

This is the first project win by Citilog's new Hong Kong partner, Parking Systems Ltd. Citilog was selected for our long history of successful deployment in Hong Kong and also our flexible interface compatibility with the TCSS used. Citilog provides relevant incident information and also traffic statistics to the TCSS. The comprehensive interface function also allows the TCSS to easily inhibit AID functions during lane inversion or tunnel closure.

SUMMARY

Cameras used are P1385-E which has Artpec 8 processor that allows for a cost effective deployment of deep learning detections on camera. This translates to much lower computer hardware cost as analytic servers are not required.

The project requires a total of 46 cameras with a mix of indoor and outdoor cameras. With deep learning on edge, we expect to reduce the project deployment time significantly. Project is installed in Q3, 2025. With System testing to begin in Q4 2025.