



Eastern Harbour Crossing – A Customized Attendance Management Solution for Tunnel Operators

Project Description

The Eastern Harbour Tunnel, one of the three major cross-harbour tunnels in Hong Kong and is the longest one among them, is a combined road-rail tunnel that crosses beneath Victoria Harbour in Hong Kong. Opened in 1989, it connects Quarry Bay, Hong Kong Island and Cha Kwo Ling, Kowloon East. It is also the first tunnel in Hong Kong which features two components, a road part and a rail part. Tolls are collected manually or electronically in both directions at the toll plaza on the Kwun Tong side.

Our solution involves the newly applied time & attendance management system for the management of the Tunnel. ZKTeco is honoured to provide a complete solution of time & attendance management to them.

Solution Details

Flexible Roster Arrangement

Compared with general enterprises' roster management, as tunnel operation is a public utility, agreement protocol is required between the tunnel operation company and government departments regarding manning level and liquidated damage, which regulate the requirement of minimum number of on-duty employees, and once the requirement is not met, financial compensation has to be made, there are different charges depending on the absent positions, some positions require higher compensation amount.



Solution

In fact, an employee may act more than just one position as long as he or she is qualified. ZKBioSecurity Time & Attendance Software is customizable according to client's requirements. In this case, it is customized to be able to perform flexible roster management according to employees' qualifications and their available positions to act, as all employees' information have been registered in the system. Thus, through flexible shift, absence of position with higher compensation amount can be minimized to the largest extent.



Direct Excel Import

As the client applies Microsoft Excel for roster management, and their staffs have been familiar with the existing system, if a newer system replaces with a completely new interface, then employees would be required to consume time and manual power to learn and adapt to it. And as they are required to submit attendance reports to the Transport Department in a certain format, reports in any other format would fail to meet the regulated requirement.

Solution

ZKBioSecurity enables both direct roster management in the system and direct Microsoft Excel import. The software is able to directly read Excel and quickly perform roster management. In order to meet our client's special requirement, the ZKBioSecurity has been customized to be able to generate attendance reports that full comply with the specific format required by the Transport Department. Thus employees are enabled to remain the existing Excel roster management and import to the software, no any additional change has to be made, and the system is able to automatically generate reports in correct format.



Reliable Biometric Verification Method

In order to ensure attendance accuracy and prevent fake punch-in or out, the conventional card punching has to be replaced as it does not satisfy the needs due to that it is not capable to verify if the card holder is the authentic person the card belongs to, yet a time & attendance system that truly verifies and authenticates the persons punching in or out does. After having a deeper understanding of different time & attendance methods, our client required a hybrid biometric verification time & attendance system with face recognition function while maintaining card verification for flexibility.

Solution

ZKTeco installed 2 units of FaceDepot-7B and 4 units of Horus-E1 Time & Attendance Facial Recognition Terminals, which offer high-performance facial recognition functions, with staffs' face images registered, there are enabled to simply have their faces scanned to finish the entire verification process.

The devices are also all equipped with RFID card verification function to remain flexibility.



Verification Everywhere

As one employees may be able to act more than one position with relevant qualifications, Transport Department and Electrical and Mechanical Services Department irregularly perform surprise checks in order to guarantees that all employees are qualified for the positions they act.

Solution

ZKTeco Horus is a wireless device that enables portable work to verify staffs' identities and qualifications. And as tunnel management involves outdoor work environment, customized protective cases are equipped with the devices.

Enhancing Administration Efficiency

Roster management, leave, attendance and other human resources tasks are often administrative procedures that consumes time and manpower, and as paper-based work is still generally applied by many enterprises, work efficiency is much disadvantaged. As tunnel management involves public affairs, our client is required to submit different reports to the Transport Department in a certain format, including manning level, daily attendance, absence, training records, and also the compensation amount caused by the liquidated damage.

Solution

ZKBioSecurity is a web-based software which enables multi-person operation, once registered and logged in, all staffs are able to review and preform various administrative procedures.



End User: Eastern Harbour Tunnel

Configurations

System	Device Name	Device Model	Device Quantity
Time & Attendance	Tripod Turnstile	FaceDepot-7B	2
	Facial Recognition Terminal	Horus-E1	4
Time & Attendance Software	ZKBioSecurity		

