

From Hearing to Seeing, Angat Dam Gains Sight With the Help of KEDACOM



Situation

Located within the Angat Watershed Forest Reserve in Barangay San Lorenzo, Norzagaray, Bulacan, the 47-year-old Angat Dam is a concrete water reservoir embankment hydroelectric dam that supplies the Manila metropolitan area water. It works as a part of the Angat-Ipo-LA Mesa water system. Surrounded by lush greens, this place is also ideal for fishing, boating and hunting.

Angat Dam has a normal high water level of 210 meters. It has three gates opening a total of 1.5 meters to gradually release water that had accumulated due to incessant rains during typhoons.

Metro Manila would have no access to potable water if the dam collapses as it supplies 97% of the region's water needs.

The warning system that Angat Dam had been operating for years solely involved a sound alert. In other words, when the water in the Angat Dam rising perilously to a danger height, officials could not take an immediate action since there was no videos shown the exact situation in the Angat Dam. Thus, considering the often occurrence of earthquake, and with fears over the unawareness of natural disasters such as Typhoon passing through, the urgent need now is the immediate upgrading warning system for Dam Operation with video surveillance and video communication.

Solution

Kedacom cognitive tracking system has perfectly fulfilled the needs as it meant to monitor large outdoor areas. Combined with the Angat Dam original sound alarm system, this newly inventive system, named Parallel Port Integration by the officials, comprises a KDV8000H MCU and 10 units of PTZ cameras. It can cover an area of up to 10,000 square meters. Moreover, the automatic control function of those front-end cameras not only can capture moving targets in panoramic mode within a wide area, but further record close-up videos and take snapshots. Simultaneously it can conduct a structured analysis and report back to the command center.

The Parallel Port Integration system has greatly improved the situation awareness to better prevent an overflow of water from the dam, and protect its people and assets. The officials can immediately get a notification via the command center if any emergency happens. By adjusting cameras to all angles to view the exact situation in command center, managers can evaluate the damage causes to the Angat Dam, and therefore come up with the best solution.