Protecting Our Heritage

Innovative Security Solutions for Archaeological Sites

Archaeological sites are irreplaceable windows into our past, containing treasures that tell the story of human civilization. However, these precious locations face constant threats from robbers and vandals who seek to profit from stealing or destroy our cultural heritage. Traditional security measures often fall short, especially in remote locations where conventional surveillance is impractical or could damage the site itself.

The Challenge of Protecting Our Past

Protecting archaeological sites presents unique challenges that set them apart from typical security scenarios. These sites often span huge areas – in this case, several square kilometers. Unlike securing a building with defined entry points, archaeological sites are vulnerable from all angles.
Robbers, equipped with modern tools and technology, have become sophisticated in their attempts to steal fron these sites. They often operate at night, using careful methods to avoid detection, and target specific areas known to contain valuable artifacts. The damage they cause isn't just the stolen items – their digging can destroy the crucial archaeological context that helps us understand how our ancestors lived.

A Modern Solution for an Ancient Site

To address these challenges, we implemented a security solution that combines multiple technologies to create an invisible shield around the site. The site has been divide to 6 zones each zone contain up to 30 AIO XR seismic sensors and 1 IDIS AI PTZ camera. Those systems work together in perfect harmony.

Underground Early Warning System

These AIO XR sensors buried underground acts as an invisible early warning system, they are capable of detecting even the slightest disturbance over and under the ground. Whether it's footsteps, vehicle movement or digging.

Eyes in the Sky

Each pole contain IDIS AI PTZ camera and bullet camera to protect the pole, all of this powered by solar energy with 4G-LTE cellular connectivity. Both security cameras includes a built-in AI engine (IDLA).

How its Works?

When a seismic sensor detects potential intrusion, the nearest camera automatically rotate to focus on that exact location. Built-in AI analytics help verify the threat, distinguishing between harmless wildlife and genuine security concerns.

Innovative Features That Make a Difference

The integration of these technologies creates several powerful advantages:

1. **Instant Response:** When the seismic sensors detect movement, cameras respond in less than a second to provide an immediate visual verification.
2. **Environmental Harmony:** Solar-powered equipment and wireless sensors mean no trenching or power lines that could damage the site. The system protects history while preserving it.
3. **Smart Analytics IDLA:** IDIS built-in AI analytics helps reduce false alarms, ensuring that only genuine threats received by security teams.
4. **Complete Coverage:** The strategic placement of sensors and cameras ensures no part of the several square kilometers site goes unmonitored.

Real-World Impact

This security solution transforms an ancient site's protection into a modern-day success story. The system provides:

- **24/7 Monitoring:** Regardless of weather or lighting conditions
- **Non-invasive Protection:** Security without compromising the site's integrity
- **Rapid Response Capability:** Immediate alert and verification system
- **Sustainable Operation:** Solar power ensures continuous operation with minimal maintenance

Looking to the Future

This installation demonstrates how modern technology can be help to preserve our past for future generations. The system's scalable nature means it can be expanded or modified as needs change, ensuring long-term protection of this invaluable cultural heritage site.