FiberOptik Sensing Systems Fotech

Speed of light in threat sensing.

The sensing of security threats with fiberoptic sensors is not well known issue. On sensing of risks and threats in different categories with fiberoptic sensors as CYMSOFT; we are working on introducing and projecting new capabilities in the integration of existing security equipment with the sensor system. In this context, we provide public and private institutions in strategic security field by presenting projects to national border security, airports, environmental safety, oil pipelines, railways and energy transmission lines with developing technologies.

The consequence of globalization The transformation of Anatolian geography into an energy corridor created a sensitivity to strategic threats. For this reason, there is a need for sensor systems that can operate without any problem on the strategic site in order to detect, identify and take measures against threats. CYMSOFT has created a solution package that gathers systems for meeting this requirement. Within this scope, we are carrying out creative activities to produce projects for customer needs.

In order to combat with illegal immigration, human trafficking and drug trafficking intentions for preventive and deterring purposes, it is necessary to form a chain of mutually supportive measures in physical border security.

Our fiber optic detection systems which we represent in Turkey are a security system that requires minimal maintenance, does not require additional energy supply, has a small margin of error, is very difficult to detect, and is very easy to install, especially in strategic dimension areas and facilities.

Airports, energy facilities, etc. classical sensor systems like CCTV, IR, PIR, etc., which are used in environmental solutions of critical facilities require complex configurations that are not economical, having operational problems, and requiring continuous energy supply.

CYMSOFT follows the most advanced systems in detection technology and provides the best and economical solutions to partners in security projects.

Fiberoptic sensor cables provide operational safety on both railways and roads. Along the railway line; events such as tunnel collapse, rock fall, road slides with heliocentrism, which endanger rail safety, are

detected at light speed and an alarm is triggered. CYMSOFT offers the best solution proposal by following the most advanced technologies in fiber optic sensor systems with railway safety, software and hardware integration solutions.

CYMSOFT;

As a representative of the latest technology products from a limited number of manufacturers in the detection system market, presents error-free, at light speed solutions with easy maintenance and operation ability on;.

- Border security,

- Airport perimeter security,

- Station and critical facility safety,

- Road and transportation security,

- Follow-up of railway security and operation,

- Provides trouble-free security solutions in tunnel and hangar fire security areas.

Perimeter Security

CCTV, IR, PIR, etc., systems which are classical sensor systems and used in critical facilities such as Airports, energy facilities' perimeter security require complex configurations that are not economical, have operational problems, and require continuous energy supply. Fiberoptic cable-based sensing systems have gained a new dimension that can replace all known sensors with the support of intelligent sensing software. Without the need for termination, the analyzers used with the open fiberoptic sensor cable end, have become the ideal systems for environmental security detection by attracting human power to the lowest possible level.

The capabilities provided by these systems are;

- It can detect with light speed over a single system up to 50,000 kilometers on each side.

- On the field does not require energy, does not breakdown, does not require maintenance.

- The sensor can detect on fiber cable both burried underground and on fence with the same interrogator.

- On the area where the cable is fixed, the pedestrian movements within 5 meters of each side of the cable and vehicle movements up to 40 meters can be detected.

- Even if the cable is torn off at any point, it continues to detect until the break point, and returns to its original state when fixed.

- It is very easy to install, and very difficult to be detected.

Border Security

In order to combat illegal immigration, human trafficking, and drug trafficking intentions for preventive and deterring purposes, it is necessary to form a chain of mutually supportive measures in physical border security. This efficiency can only be achieved through the use of advanced technology detection, monitoring and tracking systems.

Our fiber optic detection systems which we represent in Turkey are a security system that requires minimal maintenance, does not require additional energy supply, has a small margin of error, is very difficult to detect, and is very easy to install, especially in strategic dimension areas and facilities.

All over the border it gives the ability to perceive location information with a one-meter error margin. When burried in the soil in depth of 30-50 cm. a fiberoptic sensor cable, the system can detect vehicle movements at 40 meters and footprint on both sides at 15 meters and these activities are displayed on the secreen as alers. The superior detection capability of this system, when integrated with thermal cameras and CCTV systems, provides the most advanced border tracking system based on the least human power.

Pipe Line Security

As a consequence of globalization the transformation of Anatolian geography into an energy corridor created a sensitivity to strategic threats. For this reason, there is a need for sensor systems that can operate without any problem on the strategic site in order to detect, identify and take measures against threats. Thanks to the fiber optic cable and sensor system that will be buried along the pipeline for the safety of the pipelines, any attack on the pipeline can be detected and alarmed at the time of leakage from the pipeline.

CYMSOFT has created a solution package that gathers systems for meeting this need. Within this scope, we are carrying out creative activities to produce projects for customer needs.

Railway Security

Using fiberoptic sensor cables on railways we provide both road safety and operational safety. Fiberoptic sensor cables to be placed along railway networks generally acquire the following capabilities;

- Through a digital map, all train routes can be tracked in real time with current speed.

- Along the railway line; events such as tunnel collapse, rock fall, road slides with heliocentrism, which endanger rail safety, are detected at light speed and an alarm is triggered.

- Pedestrian movements in the vicinity of the railway, vehicle movements in the passageways, sabotage attempts to the signaling system are detected in real time and automatic alarms are given to security units.

- PTZ cameras in areas with CCTV system along the track are automatically directed to the event area.

- Observe the status information of trains which have risk of collision on the same line and alarm is given in case of risk.

CYMSOFT offers the best solution proposal by following the most advanced technologies in fiber optic sensor systems with railway security with software and hardware integration solutions.

Fire Security

Fiberoptic Sensor cables allow fire detection without fire source, without the need for smoke detection from the environment. In areas where the temperature of the sensor cable exceeds the previously determined temperature or where there is a sudden temperature rise that does not match the temperature values of the entire environment, the system can detect and alert before the fire starts, and produce commands for automatic extinguishing systems. Depending on the technology of the sensor cable and the interrogator, 0.01 C temperature changes can be detected by the system. With this ability the system can be used successfully in areas such as;

- Tunnel fires,

- Fires in car parks and large hangars,

- Fires in metro stations and tunnels,

- In cold air storages' temperature values management.

CYMSOFT provides best and most economical solutions with fiber optic sensor cable and advanced interrogators.

Dam Sets and Water Channels Security

In dam bodies, fiberoptic sensor systems are the most effective detection system for detecting cracks in the body and detecting water leaks. With fiberoptic sensor cables to be placed in the dam body structure, a 0.01 degree temperature change in the body, leakage zone and the leaked water flow can be detected.

Overflow events that may occur along the water channels can be detected by the sensor fiberoptic cable to be placed along the canal and the water level in the channel can be tracked.

CYMSOFT offers solutions to your projects with the most modern technology products in detecting leakages and cracks in dam bodies and water channels.