SWN

Sensing Wire Net

- for sucide fall prevention and alarm
- rare nuisance alarm
- nearly invisible
- accurate locate
- no filed equipment
- compatible with CCTV camera and server

FIBERTRON CO., LTD.
Innovative Fiber Optic Security
& Safety Systems Manufacturer

Kyungi Do, Korea

Email : sensor@fibertron.co.kr
doctorbaekorea@gmail.com
Tel : +82 31 777 5612 / CP : +82 10 3783 4681

System Configuration of Fence Mount Sensing Wire

Sensing Wire Fence Demo

Application

- Bridge sides
- High building top
- High wall
- etc.

Interfaced Camera

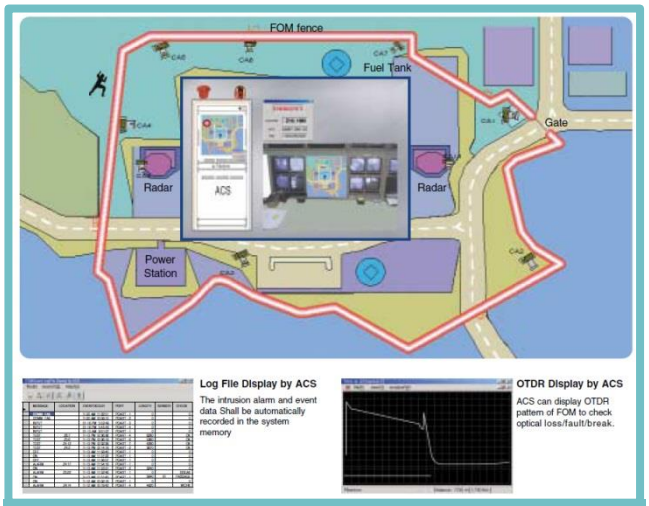
2. Echoes

1. IR Laser Pulses

OIA (Optical Intrusion Alarm)

4. Control

3. Data



Pin- Point

Sensing Wire Net Description

The SWN is in a rhombic shaped one. The rhombic design shall allow the mesh to be stretched to fit changing terrain and different fence height.
The net size shall be narrow enough to block intruder jumping in from extruded trees or human body falling from a bridge.
The Net is weaved with made-to-design Stainless Wire. The flexible nature shall cater to make it hardier for rough handling and less prone to internal fiber breakage, which occurs in other fiber system.
In order to surely block an intruder, the Net is mounted below extruded trees or brigde sides.

Specification of SWN- HM (Fiber Optic Mesh)

- Environmental characteristics : Immune to water (rain, snow, haze etc)/electricity (lightening, electrostatic, ground loop, power line, EMI, RF etc)/ sound & vibration (wind, storm, sound. vehicle vibration etc)
- Operating temperature : -40℃ + 75℃
- The wire diameter/color : : 1.2Ø grey
- Wire grade : SUS304
- SWN width : H meter
- Cell size : 90-120cm in woven rhombic shape
- Lifetime : over 15 yrs for proper maintenance
- Weight : 20kg / 3mx100m

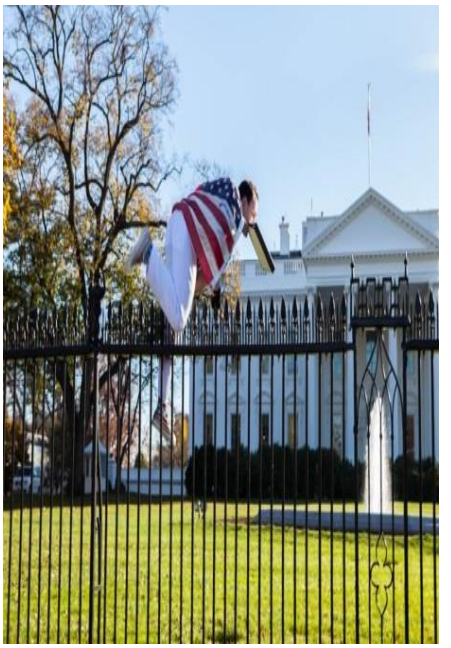
Trees along an Airport Perimeter

Sensing Wire Net below the trees

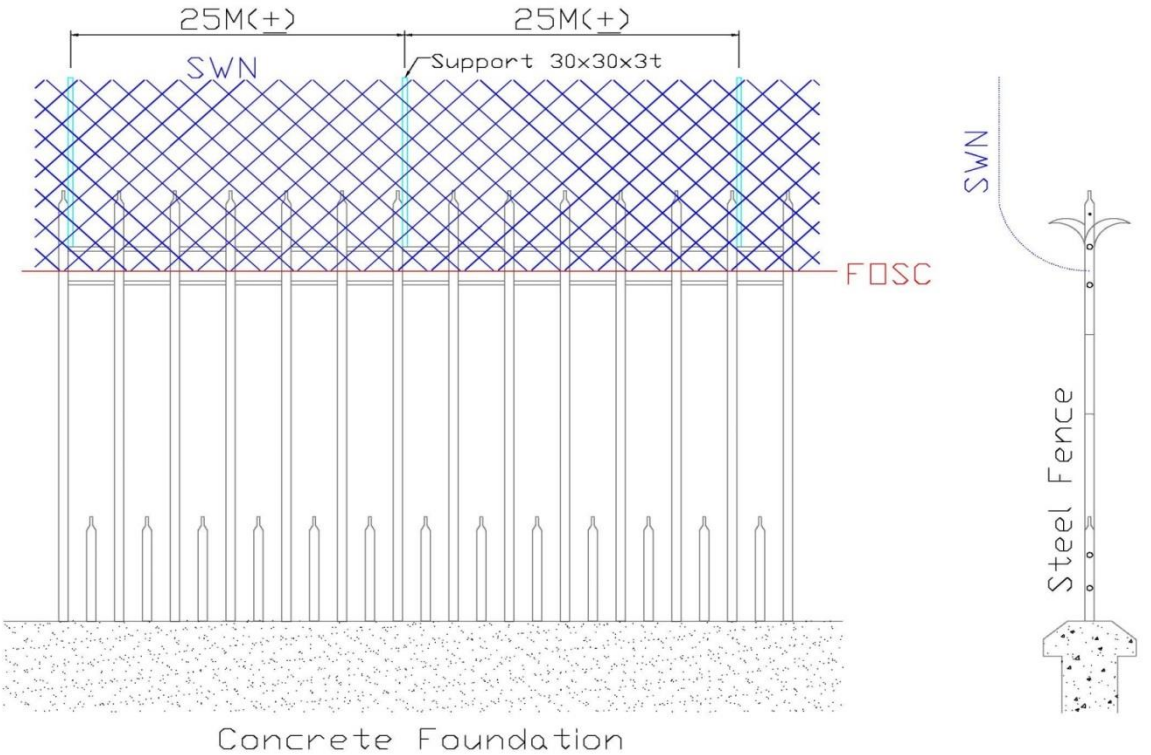
Sensing Wire Net behind fence top

Sensing Wire Net behind fence top

SWN detecting & trapping Intruder scaling over fence



SWN is constructed using woven strands of tiny steel wires with rhombic opening to stretch or shrink to detect intrusion. SWN can easily be mounted or constructed alongside a variety of structures to detect intrusion. SWN can be mounted along the sides of a bridge to detect and prevent suicides or below extruded trees to detect and prevent intrusions or on top of existing fences to prevent intruders from scaling.



Overview

SWN(Sensing Wire Net) is woven of tiny steel wire with rhombic opening to slightly stretch or shrink depending on its coverage at the site. SWN can be mounted along a bridge side to stop suicide fall or below extruded trees along perimeter to stop intruder jumping in from the trees and then to pull FOSC (Fiber Optic Sensor Cable) so as to trigger alarm and locate at OIA at the security center.

SWF is free of nuisance alarm and maintenance problem because of its immunity to environmental causes such as sea water, seaweed, water turbulences, rain, storm, lightening, vibration, sunshine, surge, power lines, EMI, RFI etc.

The OIA has provision for graphical display of the protected site. Every zone can be broken down into smaller sectors depending on the site terrain and camera covering. As the system offers a resolution of 25 meters, the exact sectoring shall be worked out on site on a case to case basis to suit ground situation. The sectoring shall be able to trigger PTZ camera to display the image taken by the CCTV camera at any alarm sector. The same alarm graphical display can be provided at other location by connecting via LAN.

The interfacing between FOM Sensor and CCTV will be made inside SCC by having the OIA transmit Intrusion Status & Location Date either in serial data transmission to or dry contacts with CCTV Control.

System specifications

System Construction	OIA – FOSC – Sensing Wire - Accessories
Sensing Origin	Cutting or pulling Sensing Wires
Location Accuracy	± 15m, ± 25m, ± 50m, ± 100m, ± 200m Optional
Prob. of Detection	Over 95%
FOSC grade	3Ø 1Core MMF
OIA, OSU, ACS details	Refer to FOSM catalog
OIA detection coverage	Lmax = 10 km, typical, Max upto 8 channel
Remote operation	Local OSU to be remotely controlled via comm. Link by ACS at Security Control Room
Op Temperature	-40 ℃~ +75℃
Environment	Immune to rain, snow, haze, wind, lightning, pollution, vehicle vibrations
Lifer time	Over 15 years

OIA specifications

OIA periodically & continuously injects Infrared Laser Pulses into FOSC(FO Sensor Cable) into each FOM end and trigger audible & visible alarming at reception of abnormal Optical Echoes flashing the intrusion spot on its own monitor site map within ±15m error. OIA also provides OTDR service function and operation data storage. OIA provides input ports for other sensors such as IR Sensor, Shock Sensor, Door Locks etc. and communication ports with other PC, CCTV Control, Server PC, LAN, Internet etc

◆ OIA-nP (Optical Sensing Unit)

- Operation mode : Normal, Test, Emergency, Setting, Stop
- Sensing mode : cutting and/or excess force
- Location Accuracy : ±15m , ±25m, 50m, 100m, 200m Optional
- No of Optical Ports : n (maximum 8)
- Sensing mode : cutting , excess force , selectable
- External connection port : PC interface
- Fiber Optic test function : semi-OTDR
- Auto-logging : event data (alarm,action,status,setting value etc)
- Monitor : 8.4" LCD color
- Interface : dry contacts, serial or LAN
- Acceptable output devices : warning light, signal phone
- O/S : Window XP
- Dimension : 19" 4U (177×483×300 mm)
- Operating condition : indoors
- Power : AC220V±10% 50/60Hz, 100Watt approx