



Disaster Safety AI Solutions



The third eye that predicts the dangers created by fiber optic distribution sensors and AI and big data technologies

ENITT

T : +82 62)972-0830 F : +82 62)974-0830 E : enitt@enitt.co.kr

www.enitt.co.kr

Headquarters | #303, Siheomsaengsan-dong, 333, Cheomdan Gwagi-ro, Buk-gu, Gwangju
Factory | 16, Cheomdan venture so-ro 38beon-gil, Buk-gu, Gwangju, Republic of Korea
Seoul R&D Center | 23, Gangnam-daero 37-gil, Seocho-gu, Seoul (4F, Shinho Bldg, Seocho-dong)
Jeonnam Branch | #704, 679, Bitgaram-ro, Naju-si, Jeollanam-do

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The center of the Disaster Safety Solutions

It is a disaster safety AI solution that monitors abnormalities in real time by continuously measuring acoustic vibration and analyzing collected data in real time by installing fiber distribution sensors in measurement sections ranging from several kilometers to tens of kilometers.



Product Specifications

Distance Range	50km
Channel Option	1
Position Resolution	1m
Data Accuracy	±1m
Minimum Sampling Rate	10kHz (up to 10km fiber length) / 20kHz (up to 5km fiber length)
Performance Authentication	IEC 61757-3-2
Operating Temperature	0°C~ 50°C

* Product specifications are subject to change depending on purpose and environment.

Operating System Configuration



The more points connect to lines and lines to faces, the safer we are. It is ENITT disaster safety management solution e-DAS that is responsible for safety on the road and in the city.

Item	Function
Rack	19" Rack 42U
DAQ Unit	DAS Signal data acquisition, analysis, and processing
Storage	DAS Signal data storage
Analytics Server	DAS Signal data deep learning analysis
Visualization Server	DAS Visualization of analytics information
UPS	Uninterruptible power supply
L2 Switch	L2 Network Switch
KVM	KVM for server

* System configuration may be changed according to purpose and environment.

Application Field



Plant
Pipe strain, Cracks, Abnormal vibration



Railway
Detection of vehicle position, Speed, Rail breakage, and Abnormal events



Bridge
Structure deformation



Port
Deformation, Cracking, Abnormal vibration



Crane · Girder
Deformation, Abnormal vibration



Power Plant
Partial discharge, Abnormal vibration, Fire



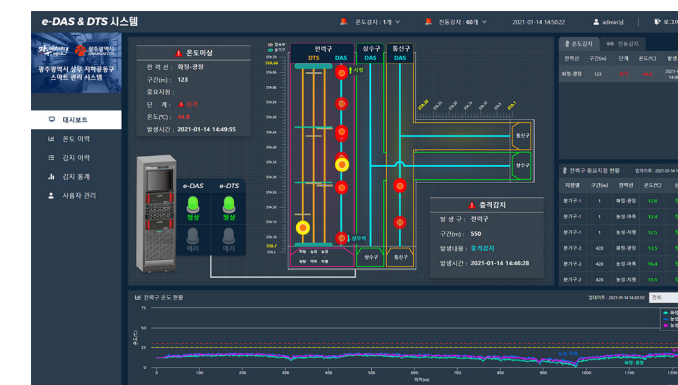
Tunnel · Road
Deformation, Cracking, Abnormal vibration



Fence
Intrusion monitoring, Cutting, Various events

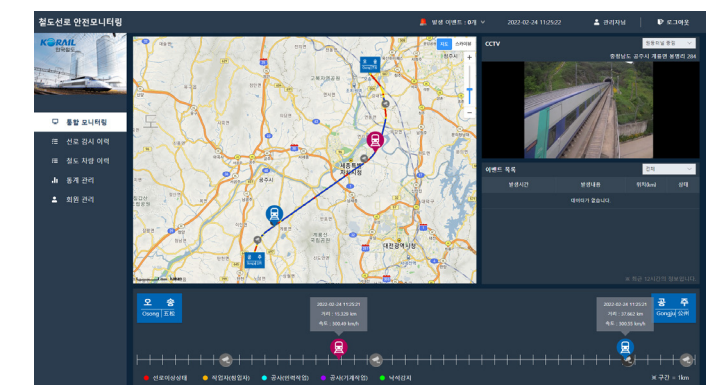
Application Example

This is a real example of ENITT e-DAS implementation.



Gwangju Metropolitan City Underground Common District Smart Management System

This is the screen of the safety management monitoring system installed in the Gwangju Underground Common District. Optical cables installed in the entire section of the common section monitor and diagnose abnormalities in the common section in real time, such as intrusion detection, breakage, and deformation, so that users can manage it more easily.



Railroad Safety Monitoring System

This is the screen of the railroad safety monitoring system installed on the 50km section of the Osong-Gongju high-speed rail in connection with KORAIL. Optical cables installed around railway tracks monitor and diagnose in real time abnormalities of railway tracks, such as train position, speed, and rail breakage.