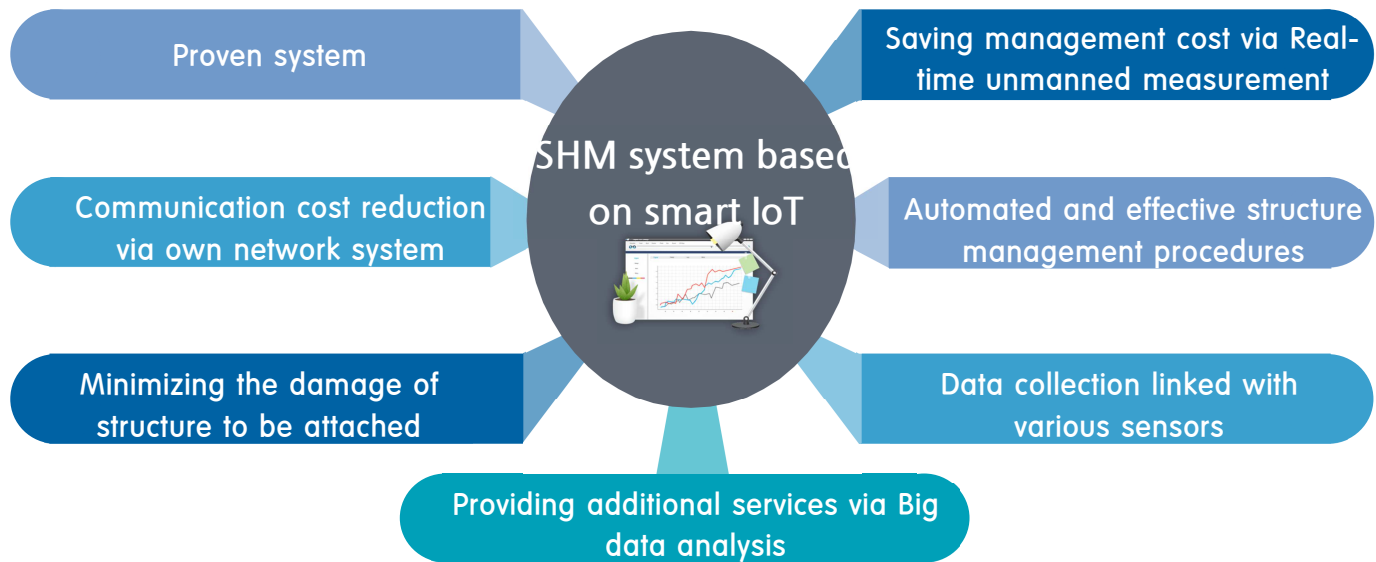


## ELTech's Structure Health Monitoring (SHM) Systems based on smart IoT sensors



## ELTech's Service Concept : Safety diagnosis and prediction via Big data analysis

- Use of measurement data at all time
  - Judgment of long term displacement trend of buildings
  - Determination of maintenance point and direction
  - Determination of displacement according to season, temperature and humidity, etc.
  - Determination of safety range and threshold
- Use of accumulated data in case of emergency
  - Identifying the time of the first structure error occurrence
  - Minimizing human damage via rapid warning
  - Complex judgment by combining various sensors such as crack, inclinometer, vibration, temperature and humidity.

## Crack sensor

ELTech's CS150 is Crack sensor module using Bosch's BMM150 3-axis geomagnetic sensor



### Features

- 3-axis geomagnetic sensor
- Data ready interrupt available
- Threshold interrupt available

## Crack sensor

Part no	Frequency [MHz]	Communication	Supply Voltage [V]	Axis	Sensing Range [mm]	Resolution [mm]
CS150	Low : 433 High : 816~920	SPI	1.8 ~ 3.3	3 (x, y, z)	20 ~ 50	0.01

## Inclinometer sensor

ELTech's IS120 is Inclinometer sensor module using Murata's SCA100T dual axis (X and Y) Inclinometer sensor



### Features

- Dual axis Inclinometer sensor
- High resolution sensing available

## Inclinometer sensor

Part no	Communication	Supply Voltage [V]	Axis	Sensing Range	Resolution
IS120	SPI or Analog	5.0	2 (x, y)	±30° (X, Y)	0.01° (X, Y)

## Vibration sensor

ELTech's VS120 is Vibration sensor module using Omron's D7S Seismic sensor.



### Features

- Earthquake interrupt available
- Data ready interrupt available

## Vibration / Earthquake sensor

Part no	Communication	Supply Voltage [V]	Sensing Range [gal]	Installation angle
VS120	I2C	2.7 ~ 5.5	-2,000 ~ +2,000	±5°

## Humidity/Temperature Sensor

ELTech's HTS120 is combo sensor module for Humidity and Temperature sensing



### Features

- Humidity and Temperature combo sensing

## Humidity/Temperature Sensor

Part no	Sensor	Range	Accuracy	Response time	Sensor interface
HTS120	Humidity	0 ~ 100 % RH	± 2% RH	8 sec	I2C
	Temperature	-40 ~ 125 °C	± 0.2°C	8 sec	I2C