

The InStar System

comparison with existing SHM solutions

	Visual inspection	Constantan strain gage	Fibre Bragg Grating	InStar System
Constant and high-precision measurement	×	√	✓	\checkmark
Strain + temperature measurement	n/a	×	×	✓
Tilt measurement	✓	×	×	✓
Seismometer	n/a	×	×	✓
Stand alone solution	√	×	×	✓
Extended measuring point	√	×	×	✓
Unlimited resistance to external agents	n/a	×	×	✓
No physical connections	n/a	×	×	✓
Possibility of wireless data transmission	n/a	✓	✓	✓
Ability to create a Mesh Network	n/a	√	×	✓
Standalone power supply	_n/a	✓	×	✓
Easy application	n/a	×	×	\checkmark
Low Cost	×	×	×	✓
Applicable on existing structures	✓	✓	×	✓