

Wind, Light the unknown!

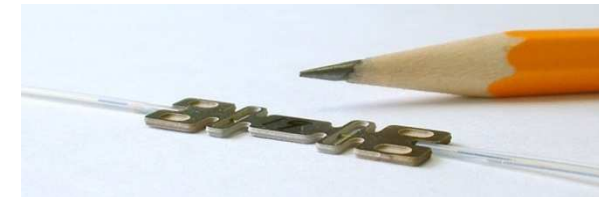
Application	Cost advantage
<p>With online condition monitoring of structures there are controlling algorithms possible to reduce the operative loads .</p>	<ul style="list-style-type: none"> • Longer component life time • Life time meter; with planed service events failures can be reduced. • More information on the inflow of energy allows a production increas.
<p>Event trapping</p>	<ul style="list-style-type: none"> • Impacts by lightning or gusts can be clearly detected and reduce the power loss due to trip analysis.

Challange	Solution
<p>Long life strain measurements</p>	<ul style="list-style-type: none"> • Spot welded sensors with no drift over years • Resolution of 0,2 $\mu\epsilon$
<p>Temperature measurement, distributed, small and EMI resistant.</p>	<ul style="list-style-type: none"> • Multiplexing, more then one sensors per string • Sensor signal is light
<p>Monitoring composite materials inside the structures.</p>	<ul style="list-style-type: none"> • Measuring fiber goes directly into the composite material



Fibre optical System, technical data:

Attributes / Extras	Values
Sampling rates	Up to 1 KHz (standard)
Precision (repeatability)	0,2µε 0,2pm 0,05°C
Temperature accuracy	± 1°C
Interrogation unit	Up to 120 sensors per system Up to 16 channels per system
Fibre connection between interrogation unit and sensors	Up to 1.000m possible in the standard configuration
Stability	No drift in interrogation unit and sensor
connections	Network, USB, Can, etc.
Software	Lab View, open Source Customized software adaption possible
Speicher	Extension modules for data storage



LIGHT THE UNKNOWN

INFAP
INDUSTRIAL FIBER APPLICATIONS

INFAP , München

Tel.: +49 89 74120106

info@infap.de / www.infap.de