

Customised built environment monitoring systems Heritage buildings / Public buildings / Storage / Domestic...

Working with research and development engineers, consultants and end users, Eltek has earned a reputation for innovative solutions, cooperation and quality. We recognise the growing need for accurate proof of the efficacy of new building materials, techniques and post occupancy studies of buildings, from domestic residence to large developments. As a result our data logging solutions have evolved to be the ideal solution.

The GenII wireless telemetry system is ideal for both short and long term studies, being easy to set up, install and commission and equally easy to redeploy as necessary. Data can be downloaded to the PC directly or via Ethernet, GSM or GPRS. We can offer a very wide range of sensors, some internal to the transmitter and, with few exceptions, integrate other exotic sensors that may well be unique to a project or preferred by the user.

Standard sensors types include RH, temperature, CO₂, light and UV, which are ideal for environmental monitoring. In addition to this, temperature sensors are available which use thermistor, thermocouple or platinum resistance technologies and package the physical sensor for immersion, intimate surface contact or air temperature. A unique feature of the Eltek system is that energy sensors (electrical, gas etc.) can be seamlessly integrated with environmental parameters such as wind speed, wind direction, precipitation, air pressure, water depth, tilt and linear displacement to provide the most comprehensive wireless monitoring available on the market.

The Eltek GenII data logger can be used with up to 250 sensors distributed across 125 transmitters, with specific transmitters having up to eight inputs. An outstanding feature is the system reliability. Most transmitters are battery operated using off the shelf batteries providing more than 2 years operation. The data logger, repeaters and some transmitter types are mains powered with 24 hour battery fallback to ensure seamless monitoring in case of mains failure. There is also no requirement for permanent connection to a PC which results in a truly independent and autonomous data logging system.

Various versions of the PC software are available. For basic applications Darca Plus provides system configuration, data download, analysis data export. Darca Heritage provides more comprehensive analysis including calculated channels and the ability to overlay parameters for comparison both in real and historic time.

Case study

Monitoring a large structure can present daunting problems. Canterbury Cathedral is being continuously monitored using Eltek's GenII system, in particular the dynamics of the structure in relation to the change in moisture and the water level of the ground. The sensitivity of the system is such that the movement of the building when the daily service bells are rung is capable of being detected.



Eltek

Specialist Data Loggers
Eltek Ltd, 35 Barton Road, Haslingfield
Cambridge, CB23 1LL, England
Tel: +44 (0) 1223 872111
Fax: +44 (0) 1223 872521
email: sales@eltekdataloggers.co.uk
<http://www.eltekdataloggers.co.uk>