



Structure Monitoring Technology

COMPANY
PROFILE

A high-angle photograph of a construction site on a rooftop. Two workers in safety gear are visible in the upper right, one holding a hose. The ground is covered with a dark, wet material and a grid of white lines. A red safety rail runs diagonally across the lower left. In the background, a city skyline with various buildings is visible under an overcast sky. A wooden ladder leans against a concrete wall. The text "WHO WE ARE" is overlaid in a white box in the center.

WHO WE ARE

Photo: Building Intelli grid system shown prior to overburden being put in place.

SMT is IoT for construction.

Founded in 2006, SMT designs software and electronics used to monitor and evaluate the integrity and performance of commercial and residential building enclosures. We have expanded to include both low- and high- value building projects from around the world, while fostering award-winning innovation and scientific excellence in both our product and service offerings.

We provide analysis and monitoring solutions for **clients engaged in building design, construction, management and restoration**. We are dedicated to innovations, creating new solutions for the construction industry.

We embrace the Industrial Internet of Things (IIoT) for construction development. **Real-time sensor analysis and remote data collection** have allowed engineers and researchers to validate designs, materials, and methods to produce more efficient and durable buildings. With our innovative solutions, clients are able to reduce their environmental impact and long-term costs, while improving quality assurance throughout the construction and/or restoration process.

We assist:
Construction Firms
Architects and Engineers
Building Managers and Owners
Building Enclosure Professionals
Manufacturers, Research & Development
And Quality Assurance Programs



OUR SOLUTIONS



Investigative Monitoring



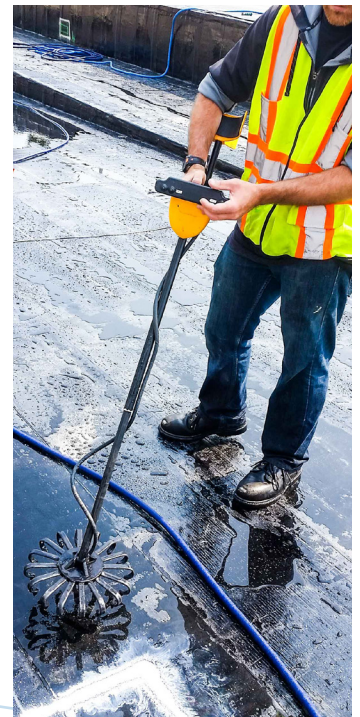
Flood Detection

DIGISCAN 360° SERVICES

Leaders in Electronic Leak Detection.

The DigiSCAN 360° is an electronic leak detection tool used for **waterproofing quality assurance**. DigiSCAN 360° Services include a membrane scan using the latest electrical integrity non-destructive testing technology. The DigiSCAN 360° transmitter is capable of identifying small membrane breaches, insufficient membrane coverage, and sorted penetrations, such as forming nails or embedded rocks. DigiSCAN 360° is approved for ASTM D7877.

The DigiSCAN 360° field tool can be used in a service or purchased as a product. Our technicians can scan your project, or you can purchase a kit and get certified training for your own business. SMT empowers quantitative quality assurance by scanning before and after construction. **We provide intelligence on the health of your roof, instilling peace of mind.**



Leaks and penetrations are found on a roof membrane after the first scan.

DigiSCAN 360° unit.

1500+
Projects
Completed

1 million+
Breaches
Detected

45+
DigiSCAN 360°
Technicians

More information can be found at www.digiscan360.com



BUILDING INTELLI

Smart monitoring built right into your roof structure.

Our **Building Intelli** membrane monitoring system is a sensor solution that is installed into your roof assembly or, on top of your lowest membrane, where sensors are installed in a grid-like fashion. **These sensors monitor for moisture intrusions or membrane breaches across the entirety of the roof assembly**, and can show which specific segments are experiencing moisture related damage. Results are shown through real-time analysis. Building Intelli can be applied to conventional, inverted, low-slope, and sloped roof systems with concrete, metal, or wood support systems/substrates.

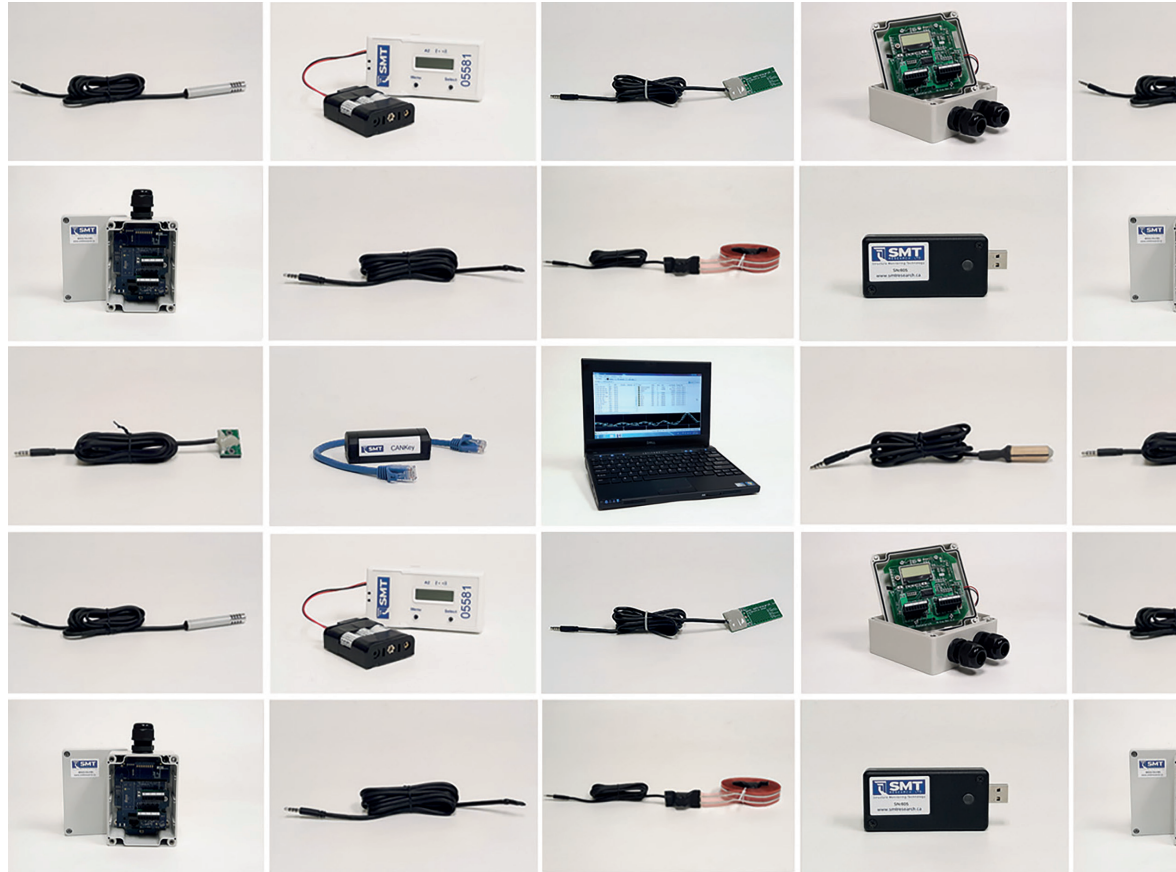
The Roofing Contractors of British Columbia (RCABC) accepts SMT Research's system for use in the RGC Waterproofing Guarantee Program. SMT's leak detection and location system is a **mandatory requirement** for compliance with RGC guarantee standards as waterproofing systems incorporate heavy or complicated overburdens in their design.



Building Intelli sensors installed in a grid on top of a roof membrane before overburden.

Our Building Intelli system can be used on commercial, industrial, and institutional roofs.



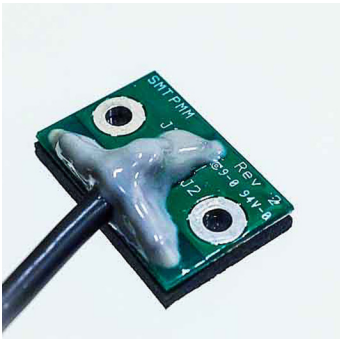


A collection of SMT investigative & moisture sensors.

INVESTIGATIVE MONITORING

Make intelligent decisions with our intelligent devices.

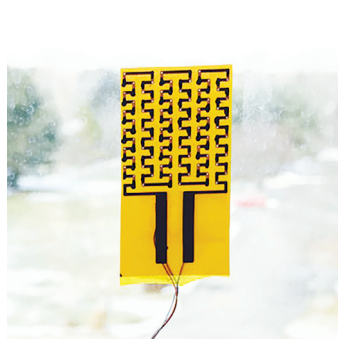
Investigative Monitoring speaks to the **integrity of a building's structure**. This process consists of sensors and electronics with measurement analytics manufactured by SMT, that are installed during or after construction, to observe and monitor the integrity of a building over time. Using on-site data acquisition, sensors forward the data to Building Analytics, our cloud based service, for analysis. Our investigative monitoring systems **observe the building over time, revealing moisture accumulations that threaten structural integrity** leading to mold, corrosion, and other kinds of building deterioration.



Point Moisture
Measurement
Sensor



Moisture Detection
Sensor



Heat Flux Sensor

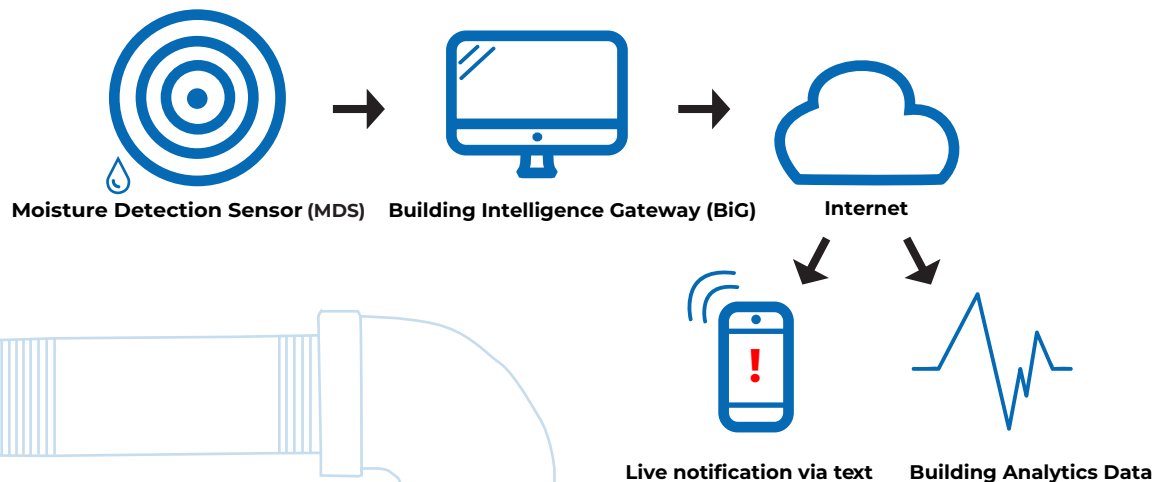


A3 Datalogger Unit

FLOOD MONITORING

Avoid your worst nightmare.

Our **Flood Monitoring** solutions detect water from: **leakage or condensation, damaged or frozen pipes, aging hot water tanks, malfunctioning sump pumps, open plumbing fixtures, sewer back-ups, and other interior/exterior sources.** Our integrated temperature sensors detect situations where plumbing could sustain damage from low temperatures. Our systems give you **advance notice** so that the situation is identified and resolved before it becomes detrimental.



On-site monitoring is achieved through our robust wireless systems. These solutions can be installed both during and after construction. The data gathered will be communicated wirelessly to the Building Intelligence Gateway (BiG), which will then notify the user of changes in state. This allows facility management teams, owners, and emergency response restoration contractors to **be proactive and address the situation at the start.**

Simple solutions for complex water problems.

WHERE WE MONITOR:

Giving you peace of mind.

SMT monitors your roofs, walls, windows, and foundations in commercial, residential, institutional, and research projects. These include: wood moisture, concrete moisture, bridge crack monitoring, air pressure monitoring, and more. **We are constantly instrumenting innovative projects** with our sensors, to be used in new areas of design, fabrication, risk evaluation and other. **SMT solutions are used for a variety of projects and needs**, tailored for each client.



Crack
Movement



Differential
Pressure



Moisture



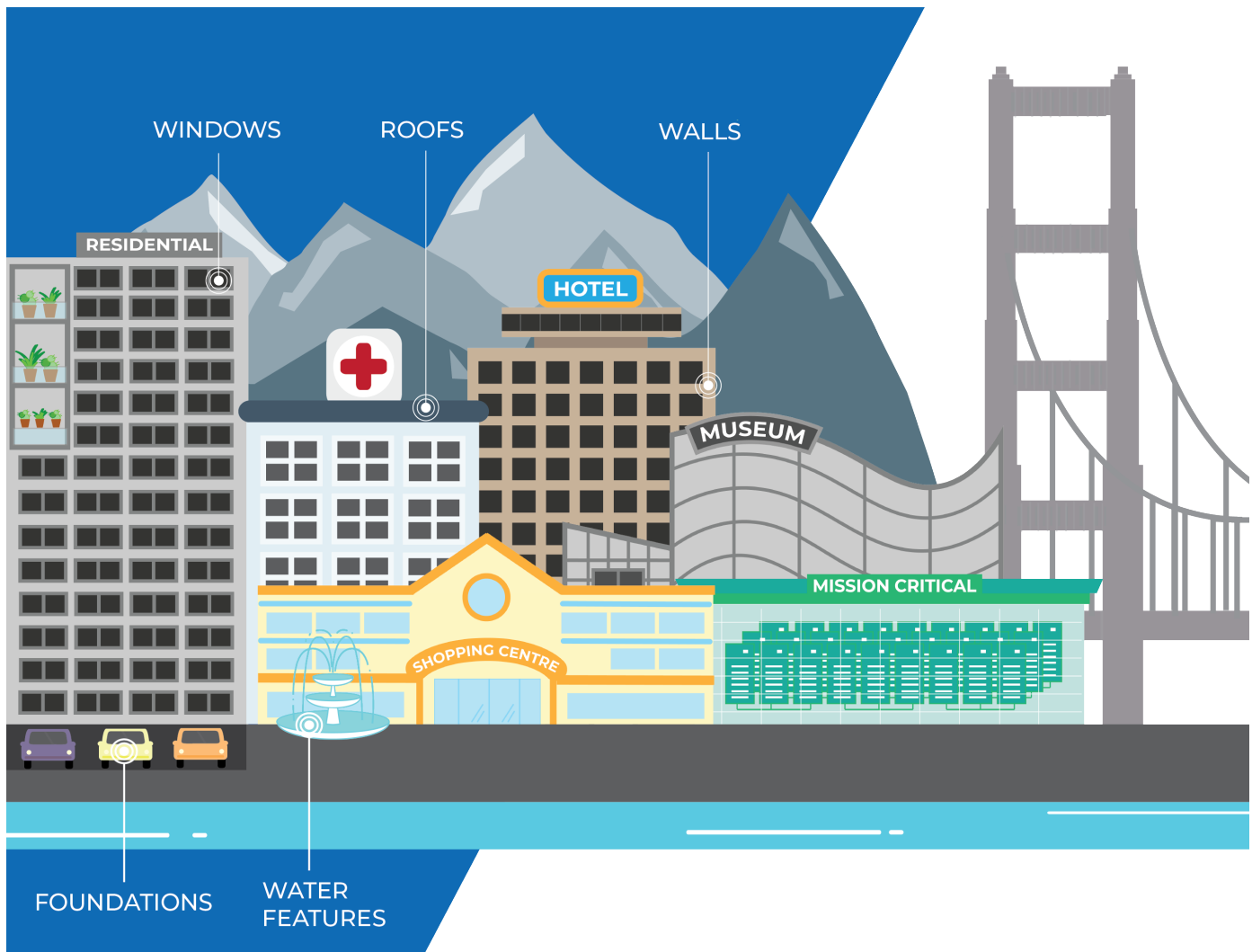
Relative
Humidity



External
Conditions



Window
Performance

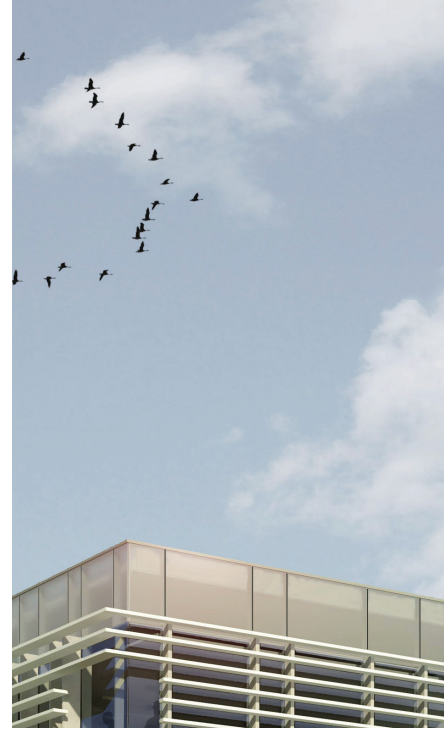


WHERE WE WORK:

Our past projects.

Red River College STTC (Right).

Milton Hospital (Below).



Our solutions can be used on various structures, so contact us if you have an inquiry for a future project.



COMMERCIAL/RESIDENTIAL:

Your building is the heart of your business. Keep it safe by monitoring its structural integrity to make sure it will last. SMT solutions can help you in any part of the construction or occupancy phase.

Multi-unit residential buildings, condominiums, and apartments often include living roofs, playgrounds, green roofs, underground parking, and water features as amenity spaces. SMT solutions ensure safety, performance and peace of mind.

Past projects include: The Parq Vancouver, The Amazing Brentwood, The SOLO District, Minoru Park, the Manitoba Hydro Building, and more.

INSTITUTIONAL:

For some of the biggest and most important institutional buildings, it is important to have a proper environmental monitoring system in place. As these buildings will be around for years to come, there is no better way to elongate their life span than by monitoring and using predictive maintenance to solve issues.

Past projects include: Milton District Hospital, The Parliament of Canada, The Seattle Asian Art Museum, The UBC Centre for Interactive Research on Sustainability (CIRS), The Red River College Skilled Trades and Technology Centre (STTC) and more.



RESEARCH:

We pride ourselves on leading innovative projects within the building technology space. Whether it be through passive house monitoring, tall wood building construction, or a tailored research project, SMT has an investigative solution for them all.

Past projects include: The UBC Brock Commons Tallwood House, The Tomb of Jesus, The Skeena Passive Haus, The Wood Innovation and Design Centre, and more.

MISSION CRITICAL:

We keep your most important assets safe and away from moisture in mission critical structures. By providing full solutions—from building construction to monitoring solutions throughout the building's lifetime—we ensure your buildings are safe.

Past projects include: Milton District Hospital, Lakes District Hospital, The Bell MTS Data Center, ViaWest Data Center, and more.

SMT ANALYTICS

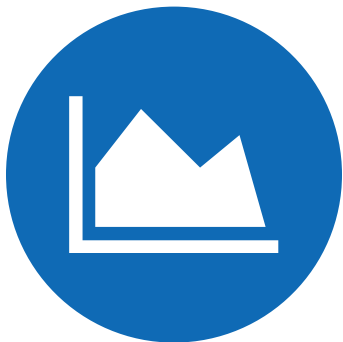


Analytics. Data. Action.

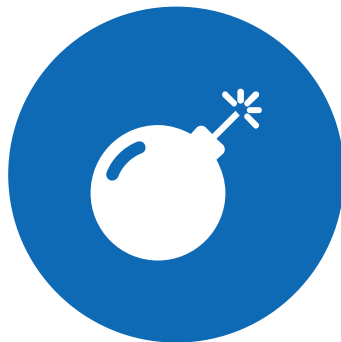
Building Analytics is a cloud based service that interfaces to our Building Intelli and investigative systems.

SMT **Building Analytics** is the web based user interface that gives you access to **data analysis** tools from any web browser or smartphone. You monitor trends, check conditions, compare sensors, and make more intelligent decisions. Our Building Analytics software lets you do them all.

For manufacturers, researchers, building science practitioners, the **most value-added portion of our system** is Building Analytics.



Monitor trends to determine the cause of a problem, predict future damage and/or limit liability.



Fix the problem as soon as you are alerted, to avoid future disaster, extending the life of your asset.



Check conditions throughout the entire life of your asset.



Pinpoint the exact location of the leak or condensation.

THE BENEFITS

CONTACT

US



HEADQUARTERS:

#103-1089 East Kent Ave N, Vancouver, BC,
V5X 4V9, Canada



TOLL-FREE: 855.209.9677

SALES: 778.373.2070

SERVICE: 204.480.8579

OPERATIONS: 778.869.3230

TORONTO (GEN): 647.362.0374



INFO@SMTRESEARCH.CA



WWW.SMTRESEARCH.CA

WWW.DIGISCAN360.COM



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and Facebook!



**Let's talk
about your
next project.**

