



Applied Research
and Innovation Services

Green Building
Technologies



SERVICES OFFERED IN:

English



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Aldred Centre - CA416
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Calgary, AB
T2M 0L4



WEBSITE:

sait.ca/applied-research-and-innovation/research-areas/green-building-technologies



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Green Building Technologies researchers work with industry partners and students through SAIT's Applied Research and Innovation Services department and through support of the NSERC Technology Access Centre grant. The objective is to help small-to-medium-sized enterprises to develop new technologies and processes, enhancing the commercialization of green technologies in Canada.

AREAS OF INNOVATION EXPERTISE

- Net-Zero Energy and Energy-Positive Design
- Building-Integrated Renewable Energy
- Energy Management and Monitoring
- Architectural Ecology
- Materials and Advanced Component Assembly
- Education and Industry Transformation

Affiliated with the Southern Alberta Institute of Technology

TECHNICAL AND BUSINESS SERVICES

- Assistance with building products approvals and commercialization
- Business development & market research services
- Competitive assessments
- Components/parts fabrication
- Concept ideation & design review
- Construction Consultation Services
- Customized machining (including laser machining)
- Design Services
- Early-Stage Business Development
- Fabrication, Prototyping and Installation Services
- Field trials/Simulation
- IP Protection facilitation
- Literature reviews
- Market analysis
- Marketing Advisory Services referrals
- Performance Monitoring and Management
- Problem solving
- Product testing
- Project management
- Proof of concept
- Rapid prototyping / 3D printing
- Sample analysis & testing
- Scientific and technological monitoring
- Scientific report writing
- Technology & workflow consultation
- Technology development
- Technology evaluation / validation
- Testing Services
- Whole wall testing – thermal, moisture, structural

APPLIED RESEARCH AND DEVELOPMENT

- 3D Scanning
- Composite part manufacturing
- Concept validation
- Cost avoidance
- Laboratory/pilot scale prototyping
- Manufacturing process design and development
- Performance monitoring and analysis
- Process optimization
- Product Design & Development
- Product Re-design & Improvement
- Provincial and federal grant proposal development
- Report preparation on R&D results
- Reverse Engineering
- Technology validation and transfer

TRAINING

- Building envelope modelling training
- Connections to co-op placement opportunities
- Design, development, and delivery of customized training
- Interactive Workshop Sessions
- Train the trainer

TECHNOLOGY DIFFUSION

- Customized technology demonstrations
- Evening speaker series
- Field site product demonstration
- Industry-specific events & symposia
- Networking events
- Open houses - Testing facility & personnel
- Participation at trade shows & other venues with or on behalf of partners
- Presentation of results at conferences
- Publishing in Peer Reviewed Literature
- Seminars and Workshops

INVENTORY OF SPECIALIZED EQUIPMENT

- ASTM Structural Compression & Racking Jig
- Biofiltration, Living Wall, Green roof, Solar Aquatic and constructed wetland testing
- Cold Climate Mechanical System Test Stations
- Energy Management, Monitoring and Building Information Management controls
- Floor, Column and Beam Testing Jig
- High performance wall assembly training bay
- Hygrothermal, Guarded Hot Box Test Station
- Hygrothermal, Insitu Advanced wall testing stations
- Modular assembly construction and lifting equipment
- Net Zero energy high performance commercial lab
- Net Zero water application and treatment lab
- Photovoltaic Design, Installation and Testing Roof
- Rain/ Hail lifecycle Damage testing
- Solar Electric Vehicle charge and dissipation test port
- Solar Thermal, High pressure solar & Seasonal heating and cooling storage