



**CENTRE FOR SENSORS  
AND SYSTEM INTEGRATION**



#### **SERVICES OFFERED IN:**

English



#### **ADDRESS:**

11762 – 106 St. NW  
Edmonton, AB  
T5G 2R1



#### **WEBSITE:**

<http://www.nait.ca/cssi>



#### **POINT OF CONTACT:**

Murali Pai Sreenivasan  
Industry Liaison  
Phone: (780) 471-8741  
Email: muralip@nait.ca

CSSI helps industry partners develop prototype devices that address sensor-based challenges in resource extraction, agriculture, biomedical, and advanced technology enterprises. We work with both established sensor devices and new or innovative devices; our team uses engineering technology to produce and evaluate prototypes for a field trial. Our full-time technical staff and well-equipped labs enable us to move innovations from proof-of-concept to demonstration ready prototypes. We work collaboratively with other service providers, and we do not retain any Intellectual Property.

#### **AREAS OF INNOVATION EXPERTISE**

- Nanotechnology
- Embedded systems
- Remote monitoring
- Industrial controls
- Sensors
- System integration

*Affiliated with the Northern Alberta Institute of Technology*

## TECHNICAL AND BUSINESS SERVICES

- Business Mentorship referrals
- Components/parts fabrication
- Concept ideation & design review
- Construction Consultation Services
- Design Services
- Early-Stage Business Development
- Fabrication, Prototyping and Installation Services
- Field trials/Simulation
- Funding assistance on applied research projects.
- Integrations
- Literature reviews
- Non-destructive inspection (NDI)
- Performance Monitoring and Management
- Problem solving
- Project management
- Proof of concept
- Sample analysis & testing
- Technology & workflow consultation
- Technology development
- Technology evaluation / validation
- Test and Characterization

## APPLIED RESEARCH AND DEVELOPMENT

- 3D Design & Printing
- Applied Engineering
- Automation
- Concept validation
- Cost Optimization
- Design of Experiment
- Industrial scale prototyping
- Laboratory/Pilot scale prototyping
- Manufacturing process design and development
- Measurement inspection and alignment
- Non-destructive inspection
- Pre-commercialization
- Process optimization
- Product Design & Development
- Product Re-design & Improvement
- Provincial and federal grant proposal development
- Report preparation on R&D results
- Sensory research facilities

## TECHNOLOGY DIFFUSION

- Rental of space & equipment
- Networking events
- Participation at trade shows & other venues with or on behalf of partners
- Industry-specific events & symposia
- Field site product demonstration

## INVENTORY OF SPECIALIZED EQUIPMENT

- Advanced Material Development and Characterization Facility: 5000 SqFt of dedicated space for advanced material development in pipeline and energy sector. The test service includes characterization equipment required in testing materials for abrasion and wear testing. Equipment includes G65, Micro-Vickers, and metallographic characterization systems.
- Class 4 certified laser testing facility
- Electronic, Optical, Micro and Nanotechnology test and characterization facility including SEM, electronic test instruments, spectral characterization equipment, and profilometer.
- Facility for microelectronics development: PCB design and fabrication facility, pick & place system, and reflow ovens for mounting components.
- Micro and Nanotechnology Integration Facility: Class 1000 clean room, lithography, etch systems, sputtering & evaporation systems for deposition.
- Test facility for optical photonics integration
- Unique fabrication facility:
  - 5-axis waterjet system,
  - 3D metal sintering system
  - Thermatron environmental chamber.



### POINT OF CONTACT:

Murali Pai Sreenivasan  
Industry Liaison  
Phone: (780) 471-8741  
Email: muralip@nait.ca

<http://www.nait.ca/cssi>