# Advanced Glazing System Laboratory (AGSL)

<http://www.solarme.uwaterloo.ca/about_agsl.html>

## Location

ERC 3009

## Management

Director:

* John Wright ([jlwright@mecheng1.uwaterloo.ca](mailto:jlwright@mecheng1.uwaterloo.ca); x36849)

Tour operator:

* John Wright ([jlwright@mecheng1.uwaterloo.ca](mailto:jlwright@mecheng1.uwaterloo.ca); x36849)
* Michael Collins ([mcollins@mecheng1.uwaterloo.ca](mailto:mcollins@mecheng1.uwaterloo.ca); x33655)

## Users

* Graduate Students (mechanical engineering)
* Undergraduate Students (nanotechnology)
* Industrial Contracts:
  + Guardian Windows
  + Edge Technology
  + PPG in Pittsburgh
  + Canadian Standard of Energy
  + National Resource – Canada
  + USA department of Energy/Commerce
  + Pilkington

## Research

* Thermal Properties of Windows
* Experimental, Numerical, Theoretical & Simple Model of Windows & Shading Devices
* Energy Simulation Software

## Selected Projects

* Producing window modeling software (California Energy Commission)
* Window modeling for ESPr (building simulation software)

## Equipment

* Optical Testing:
  + UV/VIS/NIR Spectrophotometer
  + Fourier Transform Infrared Reflectometer (FTIR)
  + Gier Dunkle DB-100 Infrared Reflectometer
  + Gier Dunkle MS-251 Solar Reflectometer
  + Broad Area Illumination - Integrating Sphere
* Main Lab:
  + Heat Pump Test Rig
  + Greywater Test Rig
  + Guarded Heater Plate Apparatus

## Supporting Partners

* NSERC (Discovery, Strategic, RTI, Network)
* CFI
* ORF
* ERA
* NRCAN (CANMET)
* others

## Access Rights

* Open to university faculty/student
  + Fees depends on usage
  + ($50/test for optic testing)
* Open to public/industry for a fee
  + $150/test for optic testing
  + May add hourly rate for technicans
* Process:
  + Email/call Prof. John Wright about projects details (reply time depends on project & avaliability)
* Training:
  + Industry - no training needed (technicans)
  + students - 1.5 hr to train