# Advanced Glazing System Laboratory (AGSL)

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

## Location

ERC 3009

## Management

Director:

* John Wright (jlwright@mecheng1.uwaterloo.ca; x36849)

Tour operator:

* John Wright (jlwright@mecheng1.uwaterloo.ca; x36849)
* Michael Collins (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