



UNSW
SYDNEY

Solar Thermal Energy Harvesting and Storage

Extensive expertise in development of new solar thermal and thermal energy storage technologies with testing capabilities to understand the performance of existing technologies, with an emphasis on real-world experimentation 'on-sun', where appropriate.

Competitive advantage

World-class testing facilities for outdoor testing of prototype solar collectors and thermal storage devices that run on liquid or gaseous working fluids.

Impact

- Improve technologies for solar thermal and thermal energy storage.

Successful applications

- Lead investigator on two ARC projects:- Superhydrophobic/nanotechnology, micro solar collectors - Waste heat recycling for desal in solar thermal power plants
- Chief Investigator on four ARENA funded projects in solar thermal areas:- Aluminium processing with solar energy (current project)- Hydrogen production via solar thermal/pv system (in collaboration with Chemical Engineering)

Capabilities and facilities

- Two outdoor solar laboratories
- An indoor lab for fluids and heat transfer measurements (includes a differential scanning calorimeter, IR cameras, and other thermal characterisation equipment)

Our partners

- Vast Solar (CSP Engineering)
- Apricus (Solar Hot Water)
- GREE (HVAC manufacturer)
- Solar and Thermal Energy Solutions (Consulting)

More Information

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