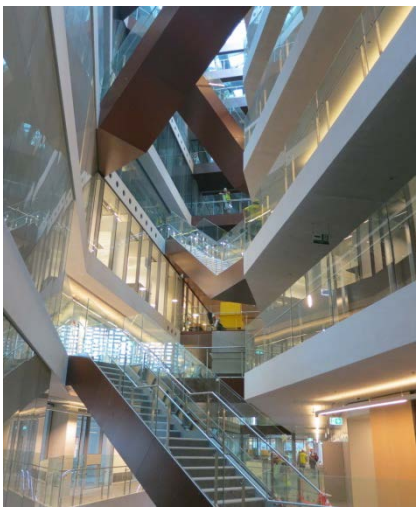
Faculty of Engineering and IT Building (CB11)

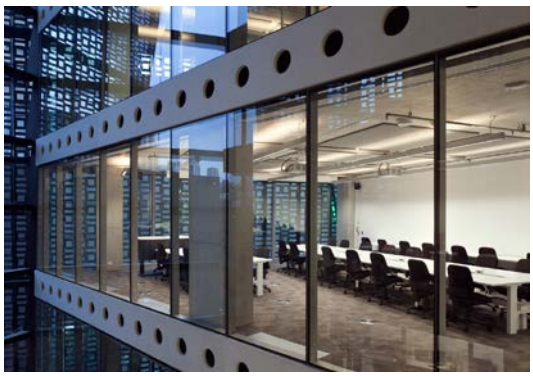


SUSTAINABLE DESIGN FEATURES

- Awarded **5 Star Green Star Design & As-Built** Educationv1 ratings Certified by the Green Building Council of Australia.
- **"Binary screen" provides shading & glare control.**
- **Adjustable blinds** further minimise glare.
- **High performance glazing**; insulated double-glazed curtain wall with low emissivity coating.
- **Natural daylighting** provided through "Crevasse" atrium, which also facilitates air extraction via the stack-effect.
- **Highly visible internal stairs** reduce lift energy use & function as "bump space".
- **Energy efficient HVAC**, including **displacement ventilation**, with sensors, timers & controls.
- Heated & chilled water supplied from CB01 **Central Thermal Plant**.
- **Renewable / low carbon micro-grid** powered by roof-top solar panels (**photovoltaics**), **wind turbine**, **hydrogen fuel cell, parabolic trough solar concentrators** linked to an **organic rankine cycle turbine** powers the 2 UTS sky signs, Dean's unit & some labs.
- **Energy efficient LED & T5 lighting**, zoning & controls.
- **LED "gill" lighting.**
- Energy & water sub-metering connected to **campus-wide Energy Management System**.
- The building is a **"living lab"** with research students able to access data from **~2,000 meters & sensors** monitoring indoor air quality, carbon dioxide levels, Volatile Organic Compounds, people counting, concrete ion erosion, building structural movement etc.
- Real-time sustainability performance data linked **digital signage**.
- **Water efficient fixtures** e.g. toilets, hand basin taps, waterless urinals.
- **Rainwater capture, treatment & re-use** for supplying the building's toilets & irrigating the Dean's Wintergarden, Arcade green wall & trees.

Sustainability

www.sustainability.uts.edu.au



SUSTAINABLE DESIGN FEATURES

- **Fire system test & maintenance drain down water capture, treatment & re-use.**
- **Phosphorus recovery urine diversion technology** (Institute for Sustainable Futures research).
- **Improved Indoor Environment Quality** through selection of materials, furniture, flooring, paints, adhesives & sealants & carpet with zero or low VOCs & use of composite woods products with zero or low formaldehyde content.
- **Low environmental impact flooring, joinery & loose furniture.**
- **Timber re-used, recycled or from certified sustainable sources.**
- **Steel sourced from environmentally responsible steel manufacturers.**
- **Avoidance of Polyvinyl Chloride products where possible.**
- **98% construction waste recycling** achieved.
- **End Of Trip facilities** in shared basement - 288 secure undercover bicycle spaces, 29 showers, 260 lockers & change facilities.

PROJECT TEAM

OWNER
University of Technology, Sydney

PROJECT MANAGER + ARCHITECT
Denton Corker Marshall

ESD / GREEN STAR
Aurecon and Umowlai

MECHANICAL + ELECTRICAL
Waterman AHW

STRUCTURAL + CIVIL
Aurecon

HYDRAULICS + FIRE
Arup

CONTRACTOR
Lend Lease

FAST FACTS

SIZE

Gross Floor Area	43,500m²
Useable Floor Area	22,050m²
18 floors	4 basement levels + 14 floors

COST

Construction cost	$205M
Construction cost per m²	$4,820

DATES

Start date	January 2009
Early works completion	February 2012
Main works completion	May 2014
Official opening	12th June 2014

green building council australia 5 greenstar Education Design v1

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GREEN GLOBE Finalist 2014