

# Shacks on the cool track

By [Farren Collins](#)

3 Feb 2015

Shacks have sprung up on the upper campus of the University of Cape Town...

They are not part of a burgeoning informal settlement, but to test an innovation that helps shacks stay cool in summer.

On Thursday, one of the hottest days of the summer so far, the project was put to the test.

Thanks to little more than recycled plastic bottles and wet charcoal, the temperature in one shack was 10°C lower than in the one next door, and 3°C lower than outside.



Image source: [The Times](#). Photographer: Adrian de Kock

Cape Town business owner Mark Algra partnered with UCT to develop methods of reducing temperatures in shacks during summer and retaining heat during winter, for less than R1,000.

By cladding the outside of the corrugated steel experimental shack with white-painted PET cloth made from old soda bottles, the temperature inside was drastically reduced.

Algra said the synthetic fibre also had UV-resistant properties and could be used as a tarpaulin or shade cover.

"The white paint reflects UV rays and the PET cloth acts as another barrier to heat," he said.

## The Cool Shack Project

The Cool Shack Project came about after Algra was inspired by the World Design Capital, hosted in Cape Town last year, to design something to improve people's lives.

He approached Dr Kevin Winter from UCT's Environmental and Geographical Science Department to help develop the idea. "People go to work and, when shacks are locked up in summer they become baking ovens," said Winter.

The experimental shack also has water-soaked charcoal in pockets on inner walls. As the water evaporates the air cools, helped by a ventilation system that draws out warm air through a dome covering a hole cut in the roof.

The City of Cape Town said about 140,000 households in its area were shacks, so such an innovation would have a large impact.

Winter said a pilot project was being planned with NGO Shack Dwellers International.

"We need to have real-life application before we can take it to the public," he said.

**Source:** The Times