

The Field Robotics Center

Seminar Series

Monday, 1st June

GHC 2109, Noon – 1:00pm

Lunch will be served



Mark Whitty

Lecturer

UNSW Australia

**Robots + Cameras + Vines = Cheaper Wine,
Bigger Headache or Both?**

Abstract : Inaccurate yield prediction in viticulture costs the Australian wine industry alone in the order of \$200 million per year. The vast scale of vineyards and substantial variability within individual blocks is a challenge for industry-practice manual sampling methods. Achieving accurate predictions is difficult, particularly early in the season when critical management decisions need to be made. This talk will show how current labor-intensive data capture methods can be automated and the accuracy improved using image processing techniques. Some lessons learnt from an extensive program of manual data collection for validation will also be presented, along with results from tests of several autonomous vehicles in vineyards.

Speaker Bio : Dr Mark Whitty is a Lecturer in the School of Mechanical and Manufacturing Engineering at UNSW Australia. His research interests include indoor localisation, 3D mapping, autonomous unmanned ground vehicles and image processing. These have been applied to field robotics projects around the world, including international robotics competitions such as MAV08, MAGIC2010 and IGVC2015. His current focus is a three year project funded by the Australian Grape and Wine Authority for improving yield estimation in viticulture. He received his Ph.D in Mechatronic Engineering from UNSW Australia in 2012, and is currently Secretary of the Australasian Robotics and Automation Association.



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