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dipartimento  
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*Conference*  
*September 18th - Ore 15:00*  
*Villa Bonino – I piano*

*VISTA: Computer Vision at National ICT Australia, Plus an  
Architecture for real-time dynamic saliency, fixation and  
segmentation*

Dr. Nick Barnes and Dr. Andrew Dankers

*Department of Systems Engineering*  
*Australian National University, Canberra, AUSTRALIA*

This talk will give an overview of the VISTA research program at National ICT Australia. We will give a brief overview of major projects: vision-based driver assistance; Infra-red and hyperspectral imaging; and, biological vision, ageing and cognition.

We will then present new results in dynamic visual saliency for fixation and segmentation. This makes use of biologically plausible early vision processes on a distributed vision system, centred around an active stereo mechanism. Out of a process of optimising real-time performance of the system through minimising network traffic and CPU loads, we see a distributed architecture that reflects some structure and properties of the human visual system. Through dynamic visual saliency on active scenes, we demonstrate real-time active fixation on and segmentation of significant objects in the scene.