

**CENTRE FOR AUTONOMOUS SYSTEMS**  
**UNIVERSITY OF TECHNOLOGY, SYDNEY (UTS)**  
**BUILDING 2, LEVEL 6, ROOM 32**  
**15 BROADWAY ULTIMO NSW 2007 AUSTRALIA**

UTS Centre for Autonomous Systems (UTS:CAS) consists of 50 staff and students with a fundamental research focus on two key problems in robotics: "Robots in unknown and complex environments" and "Human robot interaction". From 2003 - 2010, it was one of the three nodes of the ARC Centre of Excellence for Autonomous System (ARC CAS). With over 230 staff and research students, ARC CAS became the second largest robotics research group in the world with an international reputation for both leading fundamental research and its application to industry.

**UTS:CAS snapshot:**

- One of the three nodes of the ARC Centre of Excellence for Autonomous Systems, from 2003 - 2010.
- 50 researchers including 28 PhD students, 7 postdoctoral research fellows, 4 Research engineers.
- \$15 million dollars in research funding since 2003, \$3 million in current external grants.
- 6 best paper awards at international conferences; IEEE/IFR Innovation award finalist (2013); UTS research excellence award.
- Developed over 10 robotic platforms.
- UTS Mechatronics undergraduate program: Intake of 85 this year, currently 300+ students in total.

**Fundamental robotics research:**

- Robots in unknown and complex environments: sensing, mapping, motion planning and human-robot interaction; leading research in SLAM.
- Human-robot interaction (HRI): human models and control.

**Applied robotics research:**

- *Infrastructure robotics:* bridge inspection and maintenance, underground mining, water mains condition assessment and stevedoring.
- *Assistive robotics:* health/aged care robots, search and rescue, upper/lower limb exoskeleton, driver support, tele-presence, human-interactive wheelchair, walking assistant.



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