

China-Australia joint business opportunity

“Through cutting-edge research AutoCRC has helped make Australia internationally competitive in high-tech manufacturing.”

Senator Kim Carr,
Minister for Innovation,
Industry, Science and Research,
Australian Government



AutoCRC is an award winning research, development and specialist training centre, building new vehicle technologies.

AutoCRC and its partner organisations - Australian component manufacturers and research institutions - seek a collaborative project in China with a growing, export-oriented car manufacturer and a Chinese university.

AutoCRC offers:

- A single point of contact for leading automotive-based research skills across 10 major Australian research institutions.
- Partner research organisations independent of large global car companies.
- Broad and diverse experience with industry-led research programs.
- Direct engagement with Australian universities and specialist training.
- Sound understanding of the international auto industry, supply chains and technology trends.
- Co-investment funding for projects, flexible contractual arrangements and access to intellectual property.

AutoCRC participants

Research institutions

Australian National University
Commonwealth Scientific and Industrial Research Organisation
Deakin University
La Trobe University
Monash University
Queensland University of Technology
Royal Melbourne Institute of Technology
Swinburne University of Technology
University of South Australia
Victorian Partnership for Advanced Computing Ltd

Government

Australian Government - Department of Innovation, Industry, Science and Research
Victorian Government - Department of Innovation, Industry and Regional Development.
South Australian Government - Department of Trade and Economic Development

Industry research partners

Australian Arrow Pty Ltd
Air International Thermal Pty Ltd
Futuris Automotive Interiors (Australia) Pty Ltd
GKN Aerospace Engineering Services Pty Ltd
GM Holden Ltd
Mitsubishi Motors Australia Ltd
Seeing Machines Ltd
Visiocrp Australia Pty Ltd



Contacts:

AutoCRC

T: +61 3 9948 0450
F: +61 3 9673 5999
E: enquiries@autocrc.com
W: www.autocrc.com

AutoCRC

smarter, safer, cleaner

Leading edge automotive research and development



Established and supported
under the Australian
Government's Cooperative
Research Centres Program

AutoCRC research for smarter, safer, cleaner vehicles

AutoCRC research for smarter vehicles

smarter

- New Lightweight structures and high performance coatings
- World class process modelling, simulation and operator training tools
- Advanced manufacturing processes - stamping, welding, riveting
- Award-winning supply chain development program
- Cutting edge product design and development

AutoCRC research for safer vehicles

safer

- Occupant protection and collision avoidance technologies
- Human factors and ergonomics for vehicle interior designs
- High-accuracy digital camera object recognition
- Sophisticated vehicle-to-infrastructure radio communications
- Advanced human machine interface design protocols, including voice activated controls

AutoCRC research for cleaner vehicles

cleaner

- Engine and powertrain modelling
- Energy storage and energy management
- New gaseous fuel systems
- Novel Thermoelectric devices
- Leading hybrid and electric drive systems



AutoCRC's portable virtual training device allows assembly-line workers to learn how to build new auto parts off-line while the parts are still on the drawing board. Force feedback in the device gives lifelike feel to assembling the components and the 3D feature adds more realistic vision.



Engineers and designers will design and test vehicles in AutoCRC's virtual integrated Design Environment (IDE) in the near future. The IDE environment allows engineers to design for assembly, structural improvement, aerodynamics and fuel economy.



AutoCRC researchers have developed a single chip unit that reduces the effect of noise in car environments, so instructions can be detected clearly by voice activated control systems.



Almost every element of driver behaviour and its effects are captured and measured in AutoCRC's On Road Test Vehicle system. The system provides the information needed to develop new technologies to help the driver think and lower stress for safer driving.



AutoCRC's hybrid vehicle demonstrator uses advanced high efficiency power management hardware and software. Power systems are air cooled and the energy from braking is captured by supercapacitors allowing the use of smaller batteries and prolonged battery life. The hybrid system can substantially reduce fuel consumption and greenhouse gas emissions.



AutoCRC has incorporated a new engine management system, including low-emission liquid petroleum gas technology, into the Mercedes Benz 12 litre V6 Acros B-double compliant truck, which conventionally uses high-emission diesel fuel.