



# AR/VR Applications

Technology snapshot – QCAT Remote Management Centre

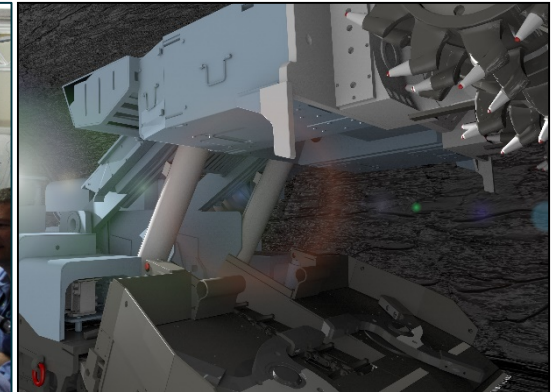
ENERGY  
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**CSIRO**

*Mining and Processing Technology Research Group*

# Remote Management Centre

- Advanced UX for operations, supervision, collaboration and tele-assistance
- Addressing a key challenge for automation and robotics: Trusted operation at a *distance*
- Mixed, virtual and augmented reality solutions for industry
- Interactive 3D data integration and visualisation for enhanced human-computer interaction



# Advanced User Interaction Interfaces

- Leading industrial applications in CSIRO of advanced natural interfaces to enable integrated systems operations
- Applying emerging Augmented Reality (AR) and Virtual Reality (VR) interfaces to benefit design, deployment and maintenance in industrial applications
- Developing custom human-centric interfaces to support enhanced performance in remote supervision, collaboration and tele-assistance
- Utilising interactive 3D data capture, integration and visualisation for enhanced human-computer interaction

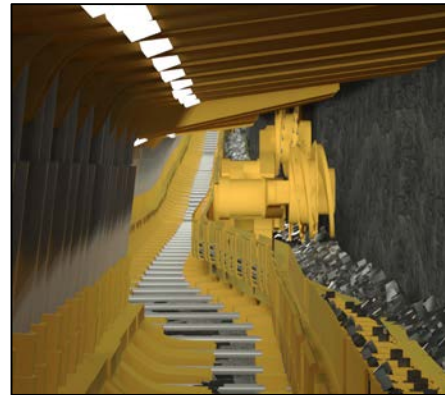
# Advanced User Interfaces

Innovative heads-up solution providing assistive interactive support in fixed and mobile applications

Development of custom visualisation systems for enhanced natural human-interaction



- ✓ Commercialised AR-solution based on *Guardian Mentor* technology
- ✓ Operates in remote, hazardous or rugged environments
- ✓ Advanced tele-collaboration and tele-assistance for longwall operations



# Advanced User Interfaces

Dynamic environment capture, fusion and display technologies in industrial and complex environments



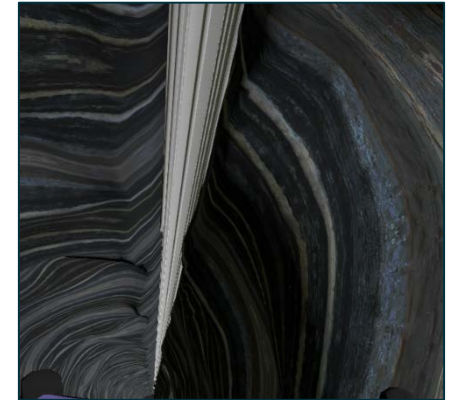
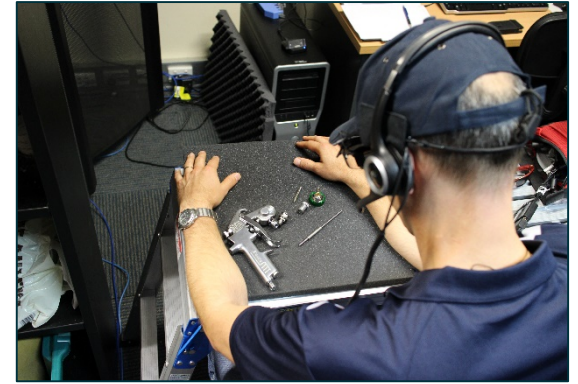
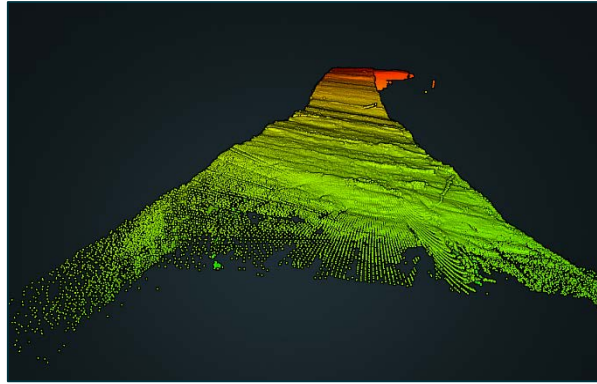
Providing situational awareness in operational contexts

Addressing key challenges in automation and robotics to ensure trusted operations at a distance



Enabling high-integrity remote and automatic control

# CSIRO. Delivering Impact



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<https://confluence.csiro.au/display/RMC/Remote+Management+Centre>