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Fibre Optic Dental Material Characterisation System (FODMCS)

A novel fibre optic dental instrumentation system to provide true understanding of the curing behaviour of dental materials. This system could be also used as a dental restoration training platform for dental practitioners. This research program is aimed to contribute to the development of technology, education and training to achieve dental restorations of the highest quality.

Competitive advantage

- A unique system to provide new insights to dental composite properties such as shrinkage profile and its relationship with curing lamp and curing techniques
- A unique dental restoration training platform to study the impact of restoration techniques and materials properties on the quality and longevity of the restoration

Impact

- Greatly improve the quality of life of dental patients and the bench time of practitioners by knowing the composite-curing lamp-curing techniques correlation.
- Promote the use of dental composites among dental practitioners and dental patients alike.

Successful outcomes

- Proof of concept demonstrated in lab, research ongoing towards prototype development.

Capabilities and facilities

- Dental composite testing and characterisation facility; optical fibre sensor development and characterisation facilities.

Our partners

- University of Wollongong
- SDI Ltd

More Information

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