

COE Special Lecture

Fibre Composites in Civil Engineering

- Towards Sustainable Structures in View of Reducing Life Cycle Cost -

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JSPS Invited Research Fellow
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14:30 ~ 16:30 NOVEMBER 7, 06

A-101 ROOM



The University of Southern Queensland (USQ) has built a reputation since its founding in 1967 for offering quality academic courses which are recognised worldwide, and in particular for the excellence of its distance education courses. It is located in Toowoomba, a regional city in southeast Queensland, Australia.

The Centre of Excellence in Engineered Fibre Composites (CEEFC) is one of the seven Research Centres at USQ, which plays a leading role in the research and development of fibre composites in civil engineering structures. During the past 5-10 years there has been considerable activity in research and development of fibre composites in the Australian construction market. Areas of activity have included; bridge systems, replacement of large section hardwood girders and waterfront structures. The R&D work at CEEFC has involved not only the initial concept development but also the construction and deployment of full-scale prototypes. Through close involvement of major asset owners including state road and rail authorities and city councils, these technologies have evolved from initial technology demonstrators to become viable technical alternatives to traditional structural solutions. CEEFC's research breakthroughs have received international acclaim and it is now widely recognised as Australia's leading composites research and development group in civil and structural engineering.

This presentation will highlight the innovative research and development projects carried out at the CEEFC using engineered fibre composites, including the Australia's first fibre composite bridge, Brisbane Riverwalk, Pile strengthening using fibre wraps and Innovative prestressed fibre wrap system for structural rehabilitation. The presentation will discuss the development of sustainable fibre composite structures in view of reducing life cycle cost of such structures.