Engineering School Seminars

The School of Electrical Engineering & Telecommunications will be presenting a seminar by Professor John Love, The Australian National University, Canberra ACT

Title: Few-Mode Optical Fibres
Time: 2:00 pm-3:00pm, Friday 15th Feb.
Venue: Room G3, Elec Eng Building

Few-Mode Optical Fibres

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The ever-increasing demand for bandwidth in long-distance, single-mode optical fibre transmission systems has seen the development and mass application of wavelength division multiplexing in recent years. To further increase the capacity of a single fibre, interest is now growing in the use of few-mode optical fibres, where each bound mode is used as a totally independent data channel, complete with its own wavelength division multiplexing.

One of the challenges in such mode multiplexing systems is the individual excitation and detection of each mode channel. This talk will present recent work that addresses this problem in two different ways, one approach using multi-port, few-mode Y-junctions and the other approach using mode-selective fibre couplers.

Prof. John Love holds degrees in mathematics from the Universities of Oxford and Cambridge. He started researching optical fibres, waveguides and devices at the ANU in 1973, followed by the publication of the definitive text Optical Waveguide Theory in 1984. He began teaching in physics and engineering at ANU in 1989 and has since developed whole courses in guided wave photonics and applications for both undergraduate and master students.

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