

Notice of a **Joint Meeting** of the



**Australian Institute of Physics (SA branch)**

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and the

**Institute of**

**Electrical and Electronic Engineers**



at **7:30pm on Monday July 2<sup>nd</sup> 2007**

in the **Napier 102** lecture theatre,  
**Napier Building, the University of Adelaide.**

Visitors  
welcome

**"New optical fibres for applications  
beyond data transmission"**

by **Prof. Tanya Monro**

*School of Chemistry and Physics,  
University of Adelaide*



**Abstract:**

New classes of optical fibres are rapidly emerging that allow fibres to be used well beyond their established role in data transmission. These developments have been enabled by research in a diverse range of areas including physics, materials science, process engineering and fluid mechanics. Recent progress in a range of areas including new transmission fibres, highly nonlinear fibres, chemical and biological sensing with new fibres and novel fibre lasers will be reviewed. Some highlights include fibres with world-record nonlinearity and the first fluorescence-based in-fibre biosensors.

**Biography:** Since 2005, Professor Tanya Monro has been the Chair of Photonics and the Director of the DSTO Centre of Expertise in Photonics within the School of Chemistry & Physics at the University of Adelaide. From 1998 to 2004, Tanya worked at the ORC at the University of Southampton, UK, on silica and soft glass microstructured optical fibres, where she was a Royal Society University Research Fellow. Prior to this she completed a PhD at the University of Sydney, Australia on self-written waveguides in photosensitive glasses, and she received the Bragg Gold Medal for the best physics PhD in Australia in 1998 for this work. Current research within the Centre of Expertise in Photonics focuses on the design, fabrication and device applications of new classes of soft glass microstructured optical fibres. In 2006 she was awarded the Cosmos Magazine inaugural "Bright Sparks" award.