



Swansea University
Prifysgol Abertawe

Overview

Professor Nick Doran
Event Chairman, Head of Institute





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Formation of IAT

- Establishment of Photonics and Communications Group in 2000
- In 2004 formulated IAT vision, attracted the partners, and applied for EU Objective 1 funding. Funding secured in October 2005 (£12m ERDF project)
- 2007 3 Research Groups established
 - Photonics (Optical Communication)
 - Wireless
 - Networks



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IAT assets

- 15 Academics (5 Professors) and core Research assistants with proven expertise in fast-moving areas of research
- Specialised and state-of-the-art labs with capital assets valued at over £4m
- Photonic Laboratory with a full Wavelength Divisional Multiplexing test bed, multiple amplifiers and test / measurement facilities at 100Gb/s
- Wireless Laboratory with signal generators / analysers, spectrum analysers, sampling oscilloscopes and a wireless emulator. Plus anechoic chamber and network analyser which enables radio and microwave design
- Network Laboratory with a broad range of software tools including network simulators and drive test equipment supporting research in 3G cellular networks



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Research and Collaboration

- World-class research at the forefront of knowledge development and knowledge transfer
- Collaborative activity – long and short-term R&D projects and problem solving / consultancy
- Collaborative partners: universities, large organisations and SMEs
- Specific target to benefit SMEs in Objective 1 areas of Wales
 - expert problem solving,
 - objective advice,
 - consultancy and
 - access to test facilities



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Achievements

- Advised 95 SMEs in Objective 1 areas of Wales
- Undertaking 26 technical collaborative projects with SMEs
 - Saving management time
 - Enhanced products or processes
 - Improved efficiencies
 - Reduced costs
- All objectives of ERDF project achieved.
- Extension of project to end Dec 2008.

“The support was timely and by gaining access to the test and measurement equipment we were able to get involved with a major new customer to sell the product in bulk.”

“IAT provides a gateway to innovation and expertise not available in our own infrastructure.”

IAT