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Professor in Photonics and Optical Communications



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Research Gateway **Photonics Homepage**

Qualifications

- PhD in Electronic Engineering, Jiao Tong University, Shanghai, 1987
- M.Sc. in Applied Physics, Jiao Tong University, Shanghai, 1984
- B.Sc. in Physics, Fudan University, Shanghai, 1982

Membership of Professional Societies

- Fellow and Life Member, OSA
- Fellow and Life Member, SPIE

Awards and Honours

- Jilu Friendship Award, Government of Shandong Province 2012
- Guest Professor, Beijing University of Post and Telecommunications, 2011
- Visiting Professor, Tokyo University, 2009
- Guest Professor, Tianjin University 2009
- Visiting Researcher, Aston University 2007
- Visiting Researcher, Southampton University 2007
- Guest Professor, School of Electronics and Information, Zhejiang University, 2005
- Visiting Professor, Osaka University, 2004
- Guest Professor, School of Optoelectronics, Chongqing University, 2003
- Anthony Mason Fellowship --Scientific Visiting Fellowship (to China), 2001
- Australian Academy of Science --Scientific Visiting Fellowship (to US, Canada and Mexico), 2000
- Queen Elizabeth II Fellowship from Australian Research Council, 1992
- Australian National University Postdoctoral Fellowship, 1988
- Young Lecturer Achievement Award, Jiao Tong University, 1988
- Science and Technology Achievement Award (Second Prize), from the National Education Council, China, 1987

Employment

- UNSW, School of Electrical Engineering Professor, 2009 - Present
- UNSW, School of Electrical Engineering Associate Professor, 2002 - 2009
- UNSW, School of Electrical Engineering Senior Lecturer, 1997 - 2002
- UNSW, School of Electrical Engineering Lecturer, 1997
- UNSW, Queen Elizabeth II Fellow, 1992-1996
- UNSW, School of Electrical Engineering Lecturer, 1991
- The Australian National University & Sydney University, Postdoctoral Research Fellow, 1990- 1991
- The Australian National University, Postdoctoral Research Fellow, 1988-1989
- Jiao Tong University (Shanghai, China), Lecturer, 1987-1988

Teaching Areas

- Optical fibre communications
- Photonics
- Telecommunications

Research Interests

- **Special silica optical fibres and devices**

Rare earth doped fibres, fibre amplifiers and fibre lasers

Polarisation maintaining fibres, twin-core fibres, Electro-optic fibres,

Fibre couplers, fibre Bragg gratings & long period fibre gratings

- **Laser dye-doped polymer optical fibres, photosensitive polymer fibres**
Application-specific polymer optical fibres and devices

Electro-optic polymer optical fibres, liquid-crystal-doped polymer fibres

Polymer fibre Bragg gratings & long period fibre gratings

- **Optical fibre sensors**

Optical fibre hydrophones, fibre grating strain sensors

Polymer optical fibre sensors

- **Planar photonic and waveguide devices**

Waveguide gratings, amplifiers

Biosensors

- **Optical fibre communication systems, WDM systems, office and home networks**

- **Photonic signal processing techniques**

Interferometer modulation and demodulation

DSP techniques, Optical instrumentation

Professional Activities

- Co-Chair, The 3rd Asia-Pacific Optical Sensors Conference (APOS 2012), Sydney, Australia, SPIE (8351), January 31 - February 3, 2012
- Member, Technical Program Committee, Optical Sensors (SENSORS), Monterey, CA, USA, OSA, 25-27 June, 2012
- Co-Chair, Technical Program Committee, The 12th International Symposium on Communications and Information Technologies (ISCIT), Gold Coast, Australia, IEEE, 2-5 October, 2012
- Co-Chair, Technical Program Committee, The 7th International Symposium on Communications and Information Technologies, Sydney, Australia, 2007.
- Member, International Program Committee, The 7th International Conference on Wireless and Optical Communications, Montreal, Quebec, Canada, 2007
- Member, Technical Program Committee, International Conference on Optical Communications and Networks, Islamabad, Pakistan, 2007
- Co-Chair, Technical Program Committee, International Conference on Optical Communications and Networks / Advances and Trends in Fibre Optics, Chengdu, China, 2006
- Overseas Associate Editor, Japanese Journal of Applied Physics (JJAP), (2005-2006)
- Member, Local Organisation Committee, International Conference of Polymer Optical Fibres, HK, 2005
- Member, Technical Program Committee, International Conference on Optical Communications and Networks, Bangkok, Thailand, 2005
- Session Chair, Microwave & Optical Devices Session, Progress in Electromagnetics Research Symposium (PIERS), Hangzhou, China, 2005
- Member, International Program Committee, The IASTED International Conference on Optical Communications Systems and Networks (OCSN 2004), Banff, AB, Canada, 2004
- Co-Chair, Conference on Advanced Sensor Systems and Applications in Photonics Asia, Shanghai 2004
- Co-Chair, International Symposium on Advances and Trends in Fiber Optics and Applications, Chongqing, 2004
- Members, Technical Program Committee, APCC/MDMC, Beijing 2004

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