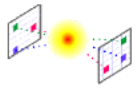




# Photonics

[University of Cambridge](#) > [Department of Engineering](#) > [Research](#) > [Electrical Engineering](#) > [Photonics](#)



**Photonics & Sensors Group**

**Staff Members**

- [Introduction](#)
- [News](#)
- [Research Areas](#)
- [People](#)
  - [Staff Members](#)
  - [Research Students](#)
  - [Project Students](#)
  - [Academic Visitors](#)
  - [Recently Flown](#)
- [Publications](#)
- [Useful Forms](#)
- [Contact & Map](#)



## **Emeritus Professor Bill Crossland**

Bill Crossland held the position of Group Leader of the Photonics & Sensors Group in the Cambridge University Engineering Department from 1992, when he was appointed Northern Telecom Professor of Photonics, until his retirement at the end of September 2009. He is also Guest Professor at Southeast University, Nanjing, PR China.

Research includes:

- Display technology and liquid crystal displays
- Plastic liquid crystal devices
- Tuneable liquid crystal high frequency dielectrics
- Real-time holographic devices for display and telecommunications systems
- Liquid crystal-carbon nanotubes colloids

Applications include:

- Holographic display technology
- Phase-only holography using LCOS devices
- Large panel liquid crystal displays using frame sequential colour techniques
- Reflective colour displays for e-book and

2/25/2014

P & S Group - Prof. Bill Crossland

microwave devices

- Telecommunications modules using programmable phase gratings and holograms

Bill Crossland has been responsible for more than 50 patents and patent applications in the field of liquid crystal devices. He is generally regarded as the founding father of liquid crystal over silicon (LCOS) technologies.

© Department of Engineering at the University of Cambridge  
Information updated by [hy268](#)  
Last updated: 12 February 2014