**Optical fibres: from telecom to manufacturing and beyond**

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**Abstract**

Optical fibres constitute the internet physical backbone and have wired up the whole globe, with a total cumulative length exceeding a billion km.

Although optical fibres have experienced an extraordinary success in telecommunications, they have also found a multitude of applications in a variety of fields, ranging from distributed sensing to high power lasers and manufacturing.

This talk will overview optical fibres with a focus on recent applications.

**Biography:**

Gilberto Brambilla obtained his PhD degree in Optoelectronics from the Optoelectronics Research Centre (ORC) (UK) in 2002 and his MSc (Engineering) with honours from Politecnico di Milano (Italy) and his. In 2007 he was awarded a Research Fellowship from the Royal Society. He is currently a professor in the at the University of Southampton and General Manager and deputy Director of the Future Photonics Hub, a £20M joint venture between research councils and industrial partners. He has been director of the EPSRC Centre for Innovative Manufacturing in Photonics until 2015. His research interests include: optical fibre devices and sensors; material structuring using fs lasers; UV fibre lasers; rare earth doped scintillating fibres; special fibres and fibre combiners for the preservation of high brightness in fibre-diode coupled high power fibre lasers. He has published >300 papers in international scientific journals/ conferences, authored 6 patents and given more than 30 invited/keynote/plenary talks over 5 continents.