Optical Sensors Using Microstructured and Photonics Crystal Fibers

Message from the Guest Editors

This Special Issue aims to highlight advances in the design, modelling, development and testing of fiber sensors based on microstructured and Photonic Crystal Fibers (PCFs). Optical fiber sensors had always high demand in both industrial, as well as domestic, applications because of their sensitivity, compact size, lightweight, immunity to electromagnetic fields, possibility to use in high voltages applications and to monitor huge areas. The usage of microstructured fibers and PCFs, because of their air hole arrangement, has further increased the research fields and new types of sensors that use the fiber as sample microchannel have been proposed, for example for biosensing, gas sensing and pollution sensing applications.

The focus of this Special Issue will be on novel applications of modern fiber sensors, from the single probe to the topology of more complicated sensing systems and also on the fabrication level underlying the development of speciality fibers for particular applications.

We hope that this issue will provide a useful reference and that it will encourage further research on novel technologies and sensing devices.
Message from the Editorial Board

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