

Optical Sensing with Long Period Fiber Gratings

Speaker: Dr. Alejandro Martinez Rios

Abstract: Long period fiber gratings are versatile all-fiber devices with important application in several areas of modern technology. Their sensitivity to environmental effects allows the application of these devices for chemical and biological sensing, where variations in the refractive of the external medium surrounding the long period grating result changes in the transmission spectrum. Here, we will discuss the operating principles and fabrication techniques of long period gratings, analyzing the parameters that can be changed in order to increase their sensitivity to environmental effects for sensor applications.