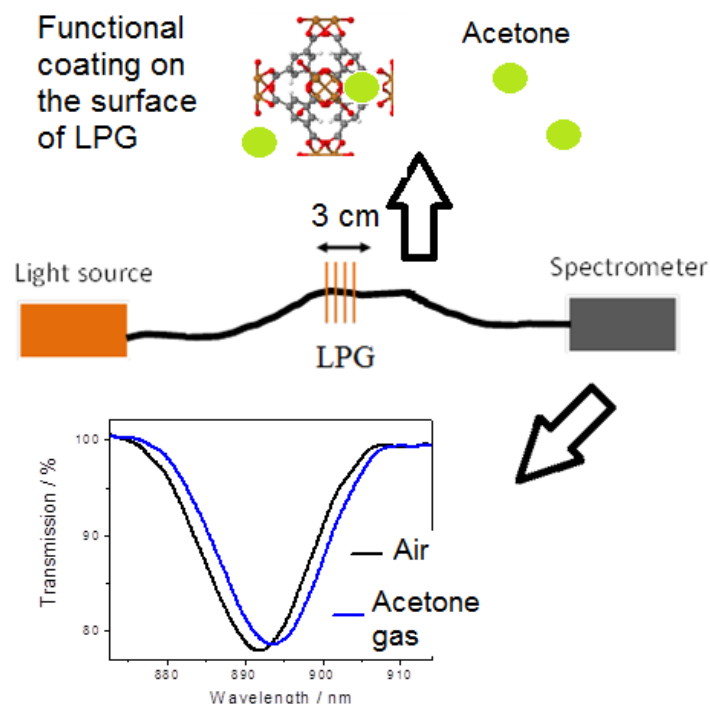




# Optics and Photonics Group Lunchtime Seminar

**“Development of multi-parameter  
fibre optic chemical sensor system  
based on long period gratings modified  
with the functional thin films”**

Jiri Hromadka



12:00pm Thursday 20th October 2016  
Lecture Theatre 203 Tower Building  
All Welcome



# **“Development of multi-parameter fibre optic chemical sensor system based on long period gratings modified with the functional thin films”**

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12:00pm Thursday 20th October 2016

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All Welcome

Fibre-optic sensing platforms have been considered as a promising platform for the development of new sensors. The proof of concept of LPG based metal organic framework (MOF) sensors for the detection of organic vapours and carbon dioxide is presented. The practical use of LPG based ammonia and VOCs sensors is demonstrated in the fields of seawater and indoor air quality monitoring. An array of three LPGs was created in a single optical fibre, multiplexed in the wavelength domain. Sensors were calibrated in the laboratory and the simultaneous measurement of the key indoor air quality elements was undertaken.