

NEAR INFRARED SPECTROSCOPY IN PROCESS ANALYTICAL TECHNOLOGY (PAT)

This course highlights the different uses of NIR as a suitable analytical chemistry tool for industrial use, and as one of the most powerful process analytical technology (PAT) tools available. Several case-studies will be discussed with participants, showing how to establish successful PAT programs in-house and how to best use NIRS to support process/product development and manufacturing across different industries.

The main topics covered will be

- NIRS 101: NIR spectroscopy in a nutshell
- Chemometrics 101: extracting information from spectral data
- Qualitative & Quantitative NIRS Applications
- Process Analysis & Monitoring: NIRS as a PAC Tool
- Process Supervision & Control: NIRS as a PAT Tool
- Good Practices in Calibration Development & Maintenance
- Developing & Filing NIR Methods for Pharmaceutical Applications
- Advanced Topics in PAC & PAT: data fusion and end-to-end applications
- Walkthrough Real World Case-Studies: Pharma, Chemical, Refining, etc

After an introduction (101 modules) both tutors will alternate during the course, each walking through the remaining course topics with the PAC perspective and the complementary PAT perspective, in a unique way that will be both informative and 'entertaining'.

TRAINER PROFILE



José C. Menezes (University of Lisbon) coordinates since 2007 a Masters Program in Pharmaceutical Engineering covering QbD and PAT. He is an active member of ISPE and several other organizations in EU and US and has published extensively on the above subjects. Founder and partner of 4Tune Engineering Ltd (2004 -) a company focused on supporting the lifecycle of PAT & QbD solutions in pharma and biotech companies in Europe, Brazil and USA.

Gledson Emidio has extensive experience in the application and development of PAT tools for spectroscopic and process data, in both academic and industrial environments. He held a Marie Curie Research Fellow while doing his PhD in Chemical Engineering at the University of Strathclyde, Scotland, and currently is a EU FP7 funded Research Associate at the same University. As a PAT specialist at 4Tune Engineering (2008-2010), he worked in several projects for large Pharmaceutical and Biotechnology industries in Portugal and Germany.



Schedule: 8 am – 12 am
13:30 pm – 17:30 pm
 (October 18, 2015)

Requirements: None

