



Using Excel spreadsheets for data analysis in testing laboratories

09:00 *Registration and coffee*

09:30 **MORNING SESSION**

Introduction to course

Using Excel as a calculator

- Addition, subtraction, multiplication, division, power, square root, simple formulas, parenthesis
- Cell reference

Presenting simple data

- Tables
- Mean and standard deviation
- Relative standard deviation and count
- Number of decimal places, rounding, 'roundup' and 'rounddown' functions

Basic charting

- x-y scatter plot
 - Calibration graph with one or more replicates at each level
- Trend line
 - Equation and correlation coefficient

Regression analysis

- Slope and intercept using Excel functions
- Regression analysis using Data analysis toolpack

Using regression parameters in calculations

- Simple formulas
- Assigning absolute cell reference

12:30 *Lunch*



13:30 AFTERNOON SESSION

Using conditional formatting in data analysis

- Comparing data with limits
 - Highlighting numbers over/under a certain threshold value
 - Returning a text message e.g. 'fail' or 'pass'

Further Charting

- Adding limits to graph
- Comparing multi datasets

Further data analysis and Excel functions

- Sorting and filtering data
- Randomising

PivotTables and PivotCharts

Protecting cells

Freezing/locking panes

16:30 *Close*