

Faculty of Engineering
and Physical Sciences



UNIVERSITY OF LEEDS

Industrial Air Pollution Monitoring

Monday 4 – Wednesday 6 March 2024



For full course details
or to register visit the
course website at:
tinyurl.com/IAPM2024



**“A detailed in-depth
view into the world
of Industrial Air
Pollution Monitoring”**

Industrial Air Pollution Monitoring

Monday 4 – Wednesday 6 March 2024

About the course

If you are involved in industrial air pollution monitoring, in whatever capacity, you'll know that it is a complex and challenging topic with:

- a technically difficult measurement process with many pitfalls for the unwary
- a steady flow of new directives from Europe
- an evolving management and legislative context
- a continually expanding range of documentation from different sources

Depending on your training needs, you can either choose to attend the full three days or individual day/s which are relevant to you. During day one we will focus on general management issues, including legislation, compliance with authorisation conditions, quality assurance and control. You will hear perspectives from all sides – regulators, industrial emitters and contract source testing organisations. On days two and three we will focus on measurement and analytical techniques. We will cover gaseous and particulate emissions and discuss both extractive sampling and in situ methods. The course ends with a workshop on calculation methods which is relevant to everyone involved in emissions monitoring.

Presentations will include coverage of:

- The MCERTS scheme for instruments and for personnel
- Quality assurance and instrument performance
- Operator and test house monitoring
- The latest on important EN standards
- Principles of the common instrumental techniques
- Gas sampling and sample conditioning
- Calibration
- Particle sampling – manual and instrumental
- Methods for volatile organics
- Methods for trace species such as dioxins and heavy metals
- Uncertainty estimation

Course aims

During the three day short course you will gain a broad overview of the whole subject. The course will be suitable if you need an introduction to the field or wish to update your knowledge. You will also have the opportunity to meet providers of equipment and services. For stack testers requiring personal certification under the Environment Agency's MCERTS scheme the sessions on day one are particularly relevant to MCERTS level 2 (team leaders) and day two is particularly relevant to MCERTS Technical Endorsements 1 (particles), 2 (trace species) and 3 (manual methods for gases). Sessions on day three are particularly relevant to MCERTS Technical Endorsement 4 (instrumental methods for gases).

Who should attend

This course is relevant for all those with an interest in industrial air pollution monitoring and will be particularly useful for:

- Environmental managers
- Environmental consultants
- Environment Agency and SEPA officers
- Control and instrumentation specialists
- Contract testing engineers
- Works chemists or engineers with responsibility for emissions
- Operators of plant subject to EPR authorisation

Course Directors

Dr Hu Li, School of Chemical and Process Engineering, University of Leeds

Co-Course Director

Simon Medhurst, Smedstack Environmental

View the full programme and book your place online at <http://eps.leeds.ac.uk/short-courses>

What our previous delegates say:

"The course had an excellent range of speakers who were vastly experienced in their fields and worked the topics together into a seamless delivery."

"Excellent, varied course and essential for anyone who is involved in the emissions monitoring."

Programme

Monday 4 March 2024

Management of Emissions Monitoring

09:00 Registration and coffee

09:30 Welcome and Introduction
Dr Hu Li,
University of Leeds and
Simon Medhurst,
Smedstack Environmental

The regulatory framework

09:45 Emissions monitoring under the Environmental Permitting Regulations (EPR)
Paul Adamczyk,
Alkali Environmental and
ex-Environment Agency

10:30 The Environment Agency's Monitoring Certification Scheme
Simon Medhurst,
Smedstack Environmental

11:15 Coffee

11:30 Management of contract emissions testing
Simon Medhurst,
Smedstack Environmental

Safety management

12:15 Safety management for emission monitoring – the importance of risk assessment
Simon Medhurst,
Smedstack Environmental

13:00 Lunch

Operator monitoring

14:00 The quality assurance of Continuous Emissions Monitoring Systems to EN14181
David Graham,
Uniper Technologies Ltd

14:45 Power industry regulation and emissions monitoring
David Graham,
Uniper Technologies Ltd

15:30 Tea

15:45 Stack flow rate measurement to EN ISO 16911
David Graham,
Uniper Technologies Ltd

16:30 The monitoring of ERF emissions
Stewart Davies,
WRc

17:15 End of day one

Tuesday 5 March 2024

Manual and Instrumental Methods for Particles and Gases

08:45 Registration and coffee

09:00 Introduction to day two
Simon Medhurst,
Smedstack Environmental

Manual sampling for particles and gases

09:10 Monitoring activities at a chemical manufacturing site
Jonathan Clark,
Syngenta

09:55 Measurement of particulate emissions by extractive sampling
Dan Jones,
Uniper Technologies Ltd

10:40 Coffee

10:55 The Operator Monitoring Assessment Scheme (OMA)
Simon Medhurst,
Smedstack Environmental

11:40 Sampling and analysis of trace species
Mark Elliott,
Element Materials Technology

12:25 Lunch

13:25 Odour sampling and analysis
Alex Claridge-Ingham,
Olfasense UK Ltd

14:10 Periodic sampling methods for gases
Simon Medhurst,
Smedstack Environmental

14:55 Tea

15:10 Calculations of uncertainties in stack monitoring
Rod Robinson,
National Physical
Laboratory (NPL)

15:55 Emissions calculations
Dr Hu Li,
University of Leeds

16:55 End of day two

19:00 Course dinner – Leeds City Centre

Please note, although we remain devoted to the programme specified, we reserve the right to vary the programme in detail if required to do so by factors beyond our control.

Wednesday 6 March 2024

Instrumental Methods of Particle and Gas Analysis

08:45 Registration and coffee

09:00 Introduction to day three
Simon Medhurst,
Smedstack Environmental

Instrument performance

09:10 Understanding instrument performance standards
Richard Harvey,
National Physical
Laboratory (NPL)

Calibration

09:55 Calibration of gaseous emission measuring systems
Dr Brian Moyle,
formerly of Servomex Group Ltd

10:40 Coffee

Gas analysis instrumentation

10:55 Design of sampling systems for emissions monitoring
Dr Brian Moyle,
formerly of Servomex Group Ltd

11:40 Optical analysers for extractive gas analysis systems
Dr Hu Li,
University of Leeds

12:25 Lunch

13:15 Continuous particulate monitoring technologies
David McGee,
ENVEA

14:00 Design and application of FTIR to monitoring pollutants
Dr Andrew Dixon,
Gasmot Technologies UK

15:00 Tea

15:15 Data acquisition and reporting – principles and practice (EN17255)
George Forster,
A1-CBISS

16:00 NOx abatement and reductions for boilers and furnaces
Dr Hu Li,
University of Leeds

16:45 End of day three and course

Further information

Course Fees

The following course fees include the cost of tuition, course materials, lunches and light refreshments for the days of attendance:

Full three days **£1095** any two days **£825** any one day **£470**

Delegates are responsible for their own evening meals except on Tuesday 5 March when the course dinner is included.

Venue

The course venue will be Weetwood Hall Estate which offers first-class hotel facilities, a business centre and ample parking facilities. Weetwood Hall Estate is ideally situated 15 minutes north of the centre of Leeds. Further details can be found at www.weetwood.co.uk

Accommodation

If you require accommodation, and wish to stay at the course venue Weetwood Hall Estate please contact Emma Barker or Stevie Standerline E: reservations@weetwood.co.uk / T: 0113 230 6000 quoting 'CPD' and the 'Industrial Air Pollution' course.

Bedrooms are subject to availability with free of charge cancellation 48 hours prior to arrival:

Friday – Sunday – bed and breakfast **£93**

Monday – Thursday – bed and breakfast **£97**

Rates are per night for sole occupancy in a superior double room and inclusive of VAT.

Course dinner

The course dinner will be held at a Leeds city centre restaurant and is included in the course fee. This will take place on Tuesday evening and transport from and to Weetwood Hall Hotel is provided. The dress code is smart casual.

How to Book

Please book your place for this course through our secure Online Store, using debit or credit card, following the instructions below:

1. Visit our Online Store at: <http://store.leeds.ac.uk>
2. Select Conferences and Events in the left-hand navigation bar and 'CPD Faculty of Engineering and Physical Sciences'
3. Select the relevant course, click on 'Book Event' and complete your booking details

You will receive an automatic confirmation email within 24 hours of your booking.


Get in touch


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W: <https://eps.leeds.ac.uk/short-courses>

 [CPD, Conference and Events Unit,
University of Leeds](#)

 [@LeedsUniCPD](#)

Terms and conditions for booking

Payment

Payment by debit/credit card should be made at the time of booking via the Online Store. If for exceptional reasons you are unable to book and pay online a purchase order document will be required to support a manual booking process. Our standard payment terms are 30 days from date of invoice however payment must be made prior to attendance. Attendance may be refused if payment has not been received.

Changes made by the University of Leeds

The course programme may have to be re-scheduled or the speakers changed for reasons outside our control. The University of Leeds reserves the right to cancel or postpone a course, in which case fees will be refunded in full. In the event of cancellation, the University will not be held liable for delegates' travel or accommodation expenses.

Where a delegate cancels a registration

For cancellations made within seven days of booking: a full refund is payable unless the course starts within the next seven days, in which case the full fee is payable and no refunds will be made.

For cancellations made after seven days of booking: written cancellations received up to 15 working days before the course will be subject to an administrative charge of 20% of the total fee. Within 15 working days of the course the full fee is payable and no refunds will be made.

For non-attendance: the full fee is payable and no refunds will be made. Appropriate course materials will be sent to the registered delegate.

In the event of cancellation, the University will not be held liable for or refund any incurred travel or accommodation expenses. Substitutions may be made at any time.

Data/Privacy

Your right to privacy is important to us. We will only use your information to provide information on our CPD courses and relevant events. We will not pass your details on to any other organisations. The ways in which your personal data may be used when you provide it to us are defined in our Privacy Notice at <https://eps.leeds.ac.uk/privacy>.

If you have opted in to receive details of future CPD courses from us you can unsubscribe at any time by emailing us at cpd@engineering.leeds.ac.uk and your details will be removed from our database.



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