

Education Officer's Report. November 2020 – 2021

Training

The Fundamentals of Aerosol Science (FAS)

FAS 2020

A single day course, The Fundamentals of Aerosol Science, was hosted by the Society on 4th November 2020. This course was delivered online via Zoom due to the Covid-19 pandemic. The content of the course was similar to previous years, with five lectures covering a broad range of topics in aerosol science. The programme for the day is given below.

- 10.30 – 10.45 Welcome and Introduction (Dr Janine Jordan – DSTL, Society Education Officer)
- 10.45 – 11.45 Basic Concepts (Professor Ian Colbeck – University of Essex)
- 11.45 – 12.30 Environmental Sampling (Dr Simon Parker – DSTL)
- 12.30 – 13.30 Lunch
- 13.30 – 14.15 Optical Properties (Dr Rachael Miles – University of Bristol)
- 14.15 – 15.00 Physicochemical Characterisation (Dr Jurgita Ovadnevaite – NUI Galway)
- 15.00 – 15.15 Break
- 15.15 – 16.00 Thermodynamics and Kinetics (Professor Ben Murray – University of Leeds)
- 16.00 – 16.15 Closing comments (Dr Janine Jordan - DSTL, Society Education Officer)

There were 116 course attendees with 65 attended during the day coming from a wide range of disciplinary backgrounds, the majority of whom were postgraduate students or postdoctoral researchers/academics.

An online survey was circulated to attendees after the course seeking feedback on their experience of the day. Of 24 respondents:

- 96% answered 'Agree' or 'Strongly agree' to the statement 'The topics covered were appropriate for an introductory course in aerosol science'.
- 100% answered 'Agree' or 'Strongly agree' to the statement 'The lectures were pitched at a level that was accessible and appropriate for me'
- 96% answered 'Agree' or 'Strongly agree' to the statement 'The lectures were of the right length'.
- 79% answered 'Agree' or 'Strongly agree' to the statement 'The overall length of the day was appropriate'.

Free text comments from attendees highlighted that they would like to see more information given on applications of the science presented in the lectures, to help them see how it related to their specific field. They also asked for more interactive elements in the day to aid with audience engagement, and for the lectures to be recorded so that they could watch them back again.

Attendees were also asked whether, given the choice, they would prefer to attend The Fundamentals of Aerosol Science event in person, or whether an online event suited them better.

- 25% of attendees said that they would have preferred to attend in person
- 50% of attendees said an online course suited them better
- 25% of attendees said that they had no strong preference either way

Feedback data collected will be considered in future FAS event planning.

FAS 2021

This course will again be delivered online via Zoom due to the Covid-19 pandemic. Following attendee feedback after FAS 2020, the proposed length of the day has been shortened, with the course moved to start earlier in the day to make it easier for those with caring responsibilities to attend the full programme. The proposed programme for the day is given below.

9.30 – 9.45	Welcome and Introduction (Dr Rachael Miles – University of Bristol, Society Education Officer)
9.45 – 10.45	Basic Concepts (Professor Ian Colbeck – University of Essex)
10.45 – 10.55	Break
10.55 – 11.40	Environmental Sampling (Dr Simon Parker – DSTL)
11.40 – 12.25	Thermodynamics and Kinetics (Dr Bryan Bzdek – University of Bristol)
12.25 – 13.10	Lunch
13.10 – 13.55	Physicochemical Characterisation (Dr Jurgita Ovadnevaite – NUI Galway)
13.55 – 14.40	Optical Properties (Dr Katherine Manfred – University of York)
14.40 – 14.50	Wrap up (Dr Rachael Miles – University of Bristol, Society Education Officer)
14.50 – 15.30	Facilitated Networking Opportunity

FAS 2021 features two new speakers – Dr Katherine Manfred (University of York) who has taken over the Optical Properties lecture from Dr Rachael Miles, and Dr Bryan Bzdek (University of Bristol) who has taken over the Thermodynamics and Kinetics lecture from Professor Ben Murray. There will be no guest lecture this year in order to keep the online day as compact as possible.

In response to feedback from FAS 2020, we will also be piloting a Facilitated Networking Opportunity session to allow course attendees to meet and chat with each other in a virtual environment. This will be again held on Zoom.

Awards

The Society currently offers six education related awards for its members:

Carers' Award

This is a new award introduced in 2021. It provides funding to support members of The Aerosol Society that might not otherwise be able to attend a research event or conference due to their personal responsibilities.

Up to November 2021, no applications have been received for the Carer's Award.

Doctoral Thesis Prize

The Aerosol Society awards this annual prize for an outstanding body of original aerosol-related research.

The 2020 winner of this award was Dr Anxiong Liu, from Imperial College London.

In 2021, three nominations were received for this award and the winner will be announced at AASC 2021.

Early Career Scientist Travel Award

Awards in the form of bursaries of agreed amounts are available to early career scientists (including postdoctoral researchers) who are members of The Aerosol Society to attend Overseas Conferences and present their work.

No applications for travel awards have been received this year. Due to the Covid-19 pandemic, all conferences have been delivered virtually.

Undergraduate Research Bursary

This bursary scheme provides an opportunity for undergraduate students enrolled in a range of physical science, engineering or technology-based degree programmes to spend a minimum of six weeks working on an aerosol research project. Through support from the bursary scheme, an undergraduate will be able to gain experience in aerosol science research and encourage them to pursue a career in aerosol science. The bursary provides £1200 in funding, based on £200 per week for 6 weeks and eligible supervisors are encouraged to apply. For further details, please refer to the website.

No applications were received for this award in 2021. This is likely due to reduced University access caused by the Covid-19 pandemic.

Aerosol Science Career Development Grant

The Aerosol Society is passionate about supporting aspiring researchers in aerosol science. This flexible grant is intended to support new and emerging aerosol scientists by funding projects which contribute to a scientist's career development. The grant can support scientists from public, private, and university organisations.

In 2020 four applications were received, and two grants awarded:

- Dr Archit Mehra, for development of a low-cost PM sensor system for use indoors.
- Dr Michael Adams, to investigate the impact of aerosolized virus particles on cloud phase.

In 2021, three applications were received and are currently being reviewed.

Aerosol Society Doctoral Student Award

The Aerosol Society Doctoral Student Award is designed to recognise, reward, and encourage doctoral students who are engaged in aerosol science. The award is aimed at graduate students who are within the first two years of studying for a doctorate at a United Kingdom or Irish University (considering part time working).

In 2021, nine applications for the award were received and are currently being reviewed.

If you would like to apply for any grants or awards, please refer to the Society website for the full terms and conditions.

Dr Rachael Miles

Education Officer