

International PhD summer course: “Current and future Air Pollution management – Perspectives on new sensor technologies”

September 2 - 7, 2018, Sandbjerg Mansion, Sønderborg, Denmark

Scientific instructors

Environmental monitoring:
Prof. Ole Hertel
Aarhus University, Denmark

Smart sensors systems:
Prof. Andreas Schütze
Saarland University, Germany

Data modelling & services:
Assoc.-Prof. Kostas Karatzas
Aristotle University, Greece

[Webpage w full program](#)

[Venue](#)

Sunday
Sept 2

Arrival of participants

	Monday, Sept 3	Tuesday, Sept 4	Wednesday, Sept 5	Thursday, Sept 6	Friday, Sept 7
Session 1 9:00 - 10:30	Welcome, Introduction of lecturers and participants	Questions and answers, exercises	Questions and answers, exercises	Questions and answers, exercises	From AQ data to personalized Quality of Life (QoL) Information services
					Kostas Karatzas
Break					
Session 2 11:00 - 12:30	Introduction to air pollution	Atmospheric Chemistry – homogeneous and heterogeneous transformation in the atmosphere	Air pollution modelling from local scale to long-range transport	Examples of low-cost sensor networks for air pollution monitoring	Citizen Science for AQ monitoring and control
	Health effects of air pollution				Student interaction and discussions
Lecturer(s)	Ole Hertel	Ole Hertel	Ole Hertel	K. Karatzas, A. Schütze, O. Hertel	Kostas Karatzas
Lunch break					
Session 3 13:30 - 15:00	VOCs – relevance for outdoor and indoor air quality, impact on health and well-being	Ambient air measurements – Air Quality monitoring, integrated monitoring, field studies, and personal exposure monitoring	Hands-on exercises with low-cost sensor systems	Data-oriented analysis and modelling for air quality control	From physical to chemical and then to biological weather
Lecturer(s)	Andreas Schütze	Ole Hertel		Kostas Karatzas	K. Karatzas, O. Hertel, A. Schütze, Yulia Olsen
Break					
Session 4 15:30 - 17:00	Air pollution meteorology – impact on transport, deposition and dispersion	Gas sensor principles – materials, technology, functionality	Gas measurement systems – data analysis and system integration.	Gas sensors in your smartphone, from a drone, in your car and your ventilation system – potential future applications	Questions and answers, final discussion
Lecturer(s)	Ole Hertel	Andreas Schütze	Andreas Schütze	Andreas Schütze	
Break					
Evening program starting 19:00	Poster session: participant presentations	Hands-on sensors: examples for low-cost sensor elements and systems	Barbecue combined with gas and particle sensor testing	Presentation: results of live measurements	

Cost: DKK 4846 (~€ 650,00) incl. accommodation at Sandbjerg Mansion (5 nights starting Sunday evening) as well as full board during the whole course (excl. VAT)

Please register at: http://auws.au.dk/Sandbjerg18_PhDcourse