



## **Advanced Materials for Environmental Monitoring and Sustainability Workshop**

**Organized by the University of Oulu  
Infotech and Advanced Materials Doctoral Programme  
Financed by EIT Raw Materials, Baltic Sea CLC  
Location: Ravintola Nallikari, Oulu  
Date: 15<sup>th</sup> -16<sup>th</sup> June 2016**

### **Workshop organizers:**

#### **University of Oulu:**

Anita Lloyd Spetz (spetz@ifm.liu.se)  
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This workshop brings together university researchers, doctoral students and industry for networking and to share the latest research knowledge to be applied in a multidisciplinary way. In this workshop EIT Raw Materials highlights the future possibilities for KIC activities.

The invited speakers will cover topics regarding advanced materials for sustainability and novel sensors and smart packages for environmental and health monitoring.

The workshop comprises of four sessions:

- 1. Advanced materials and systems for the support of sustainability**
- 2. Advanced materials for sensors and packaging**
- 3. Monitoring of health effects**
- 4. Environmental monitoring**

The workshop is financed by EIT Raw Materials, Baltic Sea CLC.



## **Preliminary program layout:**

### **15<sup>th</sup> June 2016**

- 11:00 – 12:30 **Registration and Lunch buffet**
- 12:30 – 12:45 **Opening of the workshop**  
Professor Riitta Keiski, Welcome speech and the strategy of the University of Oulu (University of Oulu)  
Professor Anita Lloyd Spetz, (University of Oulu/ Linköping University)
- 12:45 – 13:00 EIT Raw Materials Baltic Sea CLC, General Manager Olli Salmi

### **Session 1**

#### **Advanced materials and systems for the support of sustainability**

- 13:00 – 13:30 Professor David Cameron; ALD depositions (Masaryk University, Czech Republic)
- 13:30 – 14:00 Xylocel Oy, Henrikki Mertaniemi; Cellulose nanofibrils in industry: recent developments and future applications
- 14:00 – 14:20 Prateek Singh; Microbial and enzymatic fuel cells (University of Oulu)
- 14:20 – 15:00 **Coffee and networking**

### **Session 2:**

#### **Advanced materials for sensors and packaging**

- 15:00 – 15:30 Professor Teodor Gotszalk; (Wroclaw University of Technology, Poland)
- 15:30 – 15:50 Tiina Sikanen; Microsystems and nanotechnologies in pharmaceutical sciences (University of Helsinki)
- 15:50 – 16:10 Marko Tuhkala; Cavity resonator measurements of particles (fungi spores) (University of Oulu)
- 16:10 – 16:30 Mike Andersson; The field effect transistor transducer platform for air quality sensors
- 16:30 – 16:50 Maciej Sobocinski; Case Ford – soot sensor for cars (University of Oulu)
- 16:50 – 17:10 Wojciech Kubicki; Optical properties of new low temperature photo-imageable bonding adhesives (Wroclaw University of Technology, Poland)
- 17:10 – **Coffee and networking**
- 18:00 – **Dinner at Restaurant Nallikari**

**16<sup>th</sup> June 2016**

**Session 3:**

**Monitoring of health effects**

- 09:00 – 09:30 Anne Kahru; Evaluation of (eco)toxicological effects of synthetic nanoparticles (National Institute of Chemical Physics and Biophysics, Estonia)
- 09:30 – 10:00 Professor Kajsa Uvdal; Nanoparticles in medical imaging (Linköping University)
- 10:00 – 10:20 Helen Karlsson; Occupational exposure to metal nanoparticles and health effects in welders and 3D printing operators (Linköping University)
- 10:20 – 10:50 Jacob Mensah-Attipoe; Bioaerosol monitoring in the environment and health (University of Eastern Finland, Kuopio)
- 10:50 – 11:30 **Coffee and networking**

**Session 4:**

**Environmental monitoring and controlling**

- 11:30 – 12:00 SSAB, Heikki Hellman; Environmental monitoring
- 12:00 – 12:20 Oulun jätehuolto, Katri Päivärinta; Future and market prospects of waste management, recycling etc.
- 12:20 – 12:40 Meoline Oy, Jarkko Rätty; Real-time heavy metal monitoring in environmental applications.
- 12:40 – 13:00 **Final remarks;**  
Professor Anita Lloyd Spetz, (University of Oulu/ Linköping University)  
Professor Riitta Keiski (University of Oulu)
- 13:00 – **Lunch**