



## Batteries Conference/Seminar New developments in battery technology

Oulu, Finland - January 23-24, 2017

Picodeon and Shmuel De-Leon are pleased to invite you to participate in the New Development in Battery Technology seminar in Oulu which will take place January 23-24, 2017 at.

Radisson Blu Hotel  
Hallituskatu 1 Oulu  
Finland

The Conference will meet to discuss and provide a platform for technological innovations and business opportunities with the latest updates in that fields in Finland and abroad.

Seniors speakers from Finland and abroad will participate. Conference language: **English**.

### Who should attend?

1. Oil & Gas battery Users, Suppliers & Manufacturers
2. Pack Assemblers
3. Materials manufacturers & Developers
4. Production equipment manufacturers
5. Companies manufacture Oil & Gas applications
6. Academic Members
7. Test equipment makers
8. R & D Engineers
9. Market Researches
10. Battery Recyclers
11. Investment Companies
12. Regulatory bodies members

### Registration

To register please E-mail: [jari.liimatainen@picodeon.com](mailto:jari.liimatainen@picodeon.com) or contact Jari at +358 40 0734122  
Conference fee € 350 + VAT includes coffee, lunches and seminar dinner and seminar material.  
Conference fee due 23.12.2016 to Picodeon bank account: FI67 1745 3000 0044 75.

### Accommodation

Radisson Blu Hotel offers accommodation at a special conference rate as follows:

- € 99 / night for single room (price includes VAT)
- € 119 / night for double room (price includes VAT)
- Reservation by phone +358 20 1234730 or email [sales@radissonblu.com](mailto:sales@radissonblu.com) before 13.1.2017
- Refer to "Battery Seminar"

**New developments in battery technology**  
**January 23, 2017**

<b>08:00 – 08:30</b>	<b>Registration and coffee</b>	
<b>Session 1:</b>	<b>Battery Technology &amp; Safety fundamentals</b>	<b>Chair: Dr Jari Liimatainen</b>
<b>08:30 – 09:30</b>	<b>Shmuel De-Leon - Battery Characteristics</b> This session introduces a historical prospective of batteries, detailed battery definitions and features (electrical, mechanical, standards, etc.).	
<b>09:30 – 10:30</b>	<b>Shmuel De-Leon - Rechargeable cells &amp; batteries</b> This session reviews and compares rechargeable batteries chemistries (Nickel Cadmium, Nickel Metal Hydride, Rechargeable Alkaline, Lithium Ion and Lithium Polymer).	
<b>10:30 – 10:45</b>	<b>Coffee Break</b>	
<b>10:45 – 12:00</b>	<b>Shmuel De-Leon – Battery Safety</b> This session introduces the safety risks along the battery cycle life and provides safety guidelines for safety event elimination. It also addresses the procedures involved in handling safety events, including first aid.	
<b>12:00 – 13:00</b>	<b>Lunch (Radisson Blu restaurant, buffet)</b>	
<b>Session 2:</b>	<b>Battery Developments I</b>	<b>Chair: Dr Kai Vuorilehto</b>
<b>13:00 – 13:45</b>	<b>Kari Mäki VTT,</b> Energy storage in intelligent energy networks	
<b>13:45 – 14:30</b>	<b>Dr Bertram Schmitz, Treofan GmbH,</b> Requirements for LIB separators in EV applications,	
<b>14:30 – 15:15</b>	<b>Dr Tapani Alasaarela, BroadBit Batteries Oy</b> Novel metallic sodium based battery technology,	
<b>15:15 – 15:30</b>	<b>Coffee Break</b>	
<b>15:30 – 16:15</b>	<b>Mikko Söderlund, Beneq Oy,</b> ALD possibilities in energy storage solutions	
<b>16:15 – 17:00</b>	<b>Professor Maarit Karppinen, Aalto University,</b> ALD in Li-ion battery applications,	
<b>19:00 – 22:00</b>	<b>Dinner at Radisson Blu Hotel</b>	
<b>January 24, 2017</b>		
<b>Session 3:</b>	<b>Battery Developments II</b>	<b>Chair: Professor Ulla Lassi</b>
<b>08:00 – 08:30</b>	<b>Coffee</b>	
<b>08:30 – 09:15</b>	<b>Dr Neal White, Picodeon Oy,</b> PLD technology for LIB separators,	
<b>09:15 – 10:00</b>	<b>Juho Välikangas, Oulu University,</b> Li-ion battery material research and testing methods,	
<b>10:00 – 10:45</b>	<b>Dr Justin Salminen, Boliden Kokkola Transport Energy –</b> Development of Lithium Ion Battery Chemistries	
<b>10:45 - 11:00</b>	<b>Coffee Break</b>	
<b>11:00 – 11:45</b>	<b>Professor Jorma Jokiniemi, University of Eastern Finland</b> Gas phase methods for material synthesis in electrochemical applications	
<b>11:45 – 12:30</b>	<b>Dr Kai Vuorilehto, EAS Germany GmbH,</b> How to develop a lithium-ion battery with maximum safety ?	
<b>12:30 – 13:30</b>	<b>Lunch (Radisson Blu restaurant, buffet)</b>	

\*Program is subject to change