
Batteries & Fuel Cells Seminar

About Batteries & Fuel Cells Seminar

The seminar program focuses on present and future needs of portable and stationary electrochemical energy sources and highlights the latest technological developments designed to satisfy application requirements.

The seminar program reviews primary, rechargeable, reserve, commercial, industrial and military batteries, fuel cells, ultra capacitors system and their accessories.

The seminar program reviews typical cycle life aspects of designing and manufacturing energy source solutions: from application energy requirements, power source electrical and mechanical design, cells selection, cells evaluation tests, battery prototype, acceptance tests, design and manufacturing techniques, testing, mass production, safety issues, transportation, use and disposal.

Special focus is given to battery design and testing aspects which are vital tools for battery solution.

The seminar program trains attendees on safety issues along the energy source solution cycle life.

The seminar program also reviews the updated status of battery air transportation restrictions and instructs on the safe transport of batteries according to IATA regulations.

Key Benefits

Batteries & Fuel Cells Seminar provides:

- Full review of current and future electrochemical energy sources.
- Training on cells and raw material selection, design, manufacturing, testing, safety, transportation and disposal aspects of energy sources.
- Basic knowledge for new employees entering the field.
- Expands the knowledge of industry members already working in the field.
- Training on Energy Sources Database software – a vital tool for optimal energy source design.



Shmuel De-Leon
Energy Ltd

Seminar Program Topics

- Battery characteristics
- Primary cells & batteries
- Rechargeable cells & batteries
- Battery chargers
- Military Batteries
- Thermal & reserve batteries
- Battery design process
- Battery design optimization
- Using the Energy Sources Database
- Battery safety
- Battery air transportation
- Battery disposal
- The “smart battery”
- Battery testing systems
- Battery holders
- Fuel cells
- EVs energy solutions

Seminar Schedule

- The seminar is 2 days long
- 20-21/2/2012

Seminar Location

Genport, srl
Via Lecco, 61
20871 Vimercate (MB), Italy

Attn: Mr Paolo Fracas
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Who should attend?

Battery and energy sources users
Pack assemblers
Cell makers
Energy sources suppliers
Academic researchers
R&D engineers
Market researchers
Safety supervisors
Battery shippers and disposals
Others industry members
Anyone who wants to increase their power sources background

About Shmuel De-Leon

Shmuel De-Leon is Founder and CEO of the company. Shmuel is a leading international expert in the business of Power Sources. Prior to founding the company, Shmuel held for over 20 years various positions as a power sources, engineering and quality control team manager. Shmuel holds a BSc. in mechanical engineering from Tel-Aviv University and an MBA in quality control and reliability engineering from the Technion Institute in Haifa as well as an Electronic Technician's diploma.

Shmuel De-Leon Energy Ltd. provides unique tools for the energy sources industry, such as the Energy Sources Database, Battery & Fuel Cells Seminar, Energy Sources Solutions, Industry News weekly newsletter,

Pricing

- 499 Euro + VAT per attendee
- 10% discount for 3+ attendees
- 2 places reserved for students at a cost of 199 Euro + VAT
- Price includes a printed version of all seminar slides

Seminar Pre-Registration Form

Organization:	
Title:	
First Name:	
Last Name:	
Street:	
City:	
State:	
Country:	
Zip:	
Phone:	
Fax:	
E-mail:	

Please define your organization:

- Battery and energy sources users
- Pack assemblers
- Cell makers
- Energy sources suppliers
- Academic researchers
- R&D engineers
- Market researchers
- Safety personal
- Battery shippers
- Others industry members

Please send the completed pre-registration form to Shmuel De-Leon Energy Ltd. by email: shmueld33@gmail.com.

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Mazal-Arie 10, Hod-Hasharon, Israel 45309
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Or in Italian to:

Genport, srl
Via Lecco, 61
20871 Vimercate (MB), Italy

Attn: Mr Paolo Fracas
Tel: +39 039 63 96 500
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Email: paolo.fracas@genport.it

Seminar Content

Module 1: Battery Characteristics

This session introduces a historical prospective of batteries, detailed battery definitions and features (electrical, mechanical, standards, etc.). Module 1 lays the foundation for the attendants to share a common “battery language” and provides all the background needed for upcoming modules.

Module 2: Primary Cells & Batteries

This session reviews and compares primary battery chemistries (Alkaline Manganese Dioxide, Zinc Carbon, Zinc Chloride, Silver Zinc, Nickel Oxyhydroxide, Lithium Iron Disulfide, Lithium Iodine, Lithium Manganese Dioxide, Lithium Carbon Monofluoride, Lithium Sulfur Dioxide, Lithium Thionyl Chloride, Lithium Sulfuryl Chloride, Lithium Bromine Chloride and High Power Organic Lithium).

Module 3: Rechargeable Cells & Batteries

This session reviews and compares rechargeable batteries chemistries (Nickel Cadmium, Nickel Metal Hydride, Rechargeable Alkaline, Lithium Ion and Lithium Polymer).

Module 4: Battery Chargers

This session reviews battery chargers, charging techniques per battery chemistry, charging problems and solutions, personal chargers, industrial chargers and charger types by charging time.

Module 5: Military Batteries

This session reviews and compares Military batteries & Chargers (Primary, Rechargeable Batteries).

Module 6: Thermal & Reserve Batteries

This session reviews and compares Thermal and Reserve batteries (Thermal Batteries, Reserve Lithium Batteries, Reserve Zinc Air, Reserve Magnesium Silver Chloride and Reserve Silver Zinc).

Module 7: Battery Design Process

This session introduces battery design processes (cell and raw materials selection, cell level testing, battery design documents, battery electrical, mechanical and safety design and final verification tests (electrical, mechanical, safety)).

Module 8: Battery Design Optimization using the Energy Sources Database

This session introduces the unique battery design tool of the Energy Sources Database that easily helps select the optimal cells and raw materials for your design. This session is designed to provide training on how to use this tool and understanding its advantages, such as finding suppliers and information in the field.

Module 9: Battery Safety

This session introduces the safety risks along the battery cycle life and provides safety guidelines for safety event elimination. Module 8 also addresses the procedures involved in handling safety events, including first aid.

Module 10: Battery Air Transportation

This session reviews the status updates of battery air transportation restrictions and reviews safe air transport of batteries, according to IATA and US DOT regulations.

Module 11: Battery disposal

This session introduces battery disposal requirements and updates disposal status in Europe and the US.

Module 12: The “Smart Battery”

This session introduces the “Smart Battery” technology, including single wire and smart battery communications bus and its advantages.

Module 13: Battery Testing Systems

This session introduces battery testing techniques, available systems and their features.

Module 14: Battery Holders

This session introduces and reviews the common market battery holders and guides on how to select the right battery holder for your battery.

Module 15: Fuel Cells

This session reviews and compares fuel cell types and their market status (Alkaline, Molten Carbonate, Phosphoric Acid, Proton Exchange Membrane, Solid Oxide and Direct Methanol).

Module 16: EVs Energy Solutions

This session introduces EVs driving range problem and energy solutions.