



January 2014 Battery Seminar

Day 1 – Morning Track	Principles of Electrochemistry
Day 1 – Afternoon Track	Basics of Cell Design/Overview of Chemistries
Day 2 – Morning Track	Early Stage/High Growth Startups & Venture Panel
Day 2 – Afternoon Track	12V & 48V Micro/Mild Hybrid Automotive Systems

Day 1: Tuesday, January 28, 2014

8:00 am – 5:00 pm	Registration Open
8:30 am – 8:55 am	Coffee
8:55 am – 9:00 am	Welcome Note/Introduction
9:00 am – 11:00 am	Module 1: Introduction to Cells and Batteries Types of batteries, definitions, cell/battery components
11:00 am – 11:30 am	Coffee with Networking
11:30 am – 12:30 pm	Module 2: Fundamentals of Cell Design - Designing for Power vs. Energy
12:30 pm – 1:30 pm	Networking Lunch
1:30 pm – 2:30 pm	Module 3: Overview of Existing Chemistries and Applications to EDVs
2:30 pm – 3:30 pm	Module 4: Overview of Lithium Batteries and Other Emerging Technologies
3:30 pm – 4:00 pm	Coffee with Networking
4:00 pm – 4:30 pm	Module 5: The First Known Rechargeable CuF ₂ Application, Discovery of a High Power, Rechargeable Conversion Electrode Wildcat Discovery Technologies – Dr. Steven Kaye
4:30 pm – 5:00 pm	Module 6: Advanced Thermal Test of Battery by New Calorimeters Netzsch Instruments – Peng Ye
5:00 pm – 5:30 pm	Module 7: Market Trends & Forecasts for Li Ion Batteries and Electric Drive Vehicles Guest Speaker TBA
5:30 pm – 7:00 pm	Evening Cocktail Reception with AVL CTC Facility Tour An exclusive inside look at AVL's CTC capabilities (full vehicle test bed), and an opportunity to interface with development experts

**Agenda subject to change without notice*

Modules 1 to 4 will be presented by Dr. Paul Gifford

Day 2: Wednesday, January 29, 2014

8:00 am – 6:00 pm	Registration Open
8:00 am – 8:25 am	Coffee
8:25 am – 8:30 am	Welcome Note
8:30 am – 9:00 am	Module 8: Multiple Stages of VC Fund Raising TeckQuest Consulting – Aakar Patel
9:00 am – 9:20 am	Module 9: Meikle Capital Technology Equilibrium Fund LP – Brad Meikle
9:20 am – 9:40 am	Module 10: Pangaea Ventures Ltd. – Andrew Haughian
9:40 am – 10:10 am	Coffee with Networking
10:10 am – 10:30 am	Module 11: A123 Systems (A123 Venture Technologies) – Mujeeb Ijaz
10:30 am – 10:50 am	Module 12: Enevate – Brian Wong
10:50 am – 12:00 pm	Module 13: Venture Panel – VCs, Angel Investors & Senior Executives To Discuss Their Experiences and Key Issues Facing Investors & Startup CEOs
12:00 pm – 1:00 pm	Networking Lunch



1:00 pm – 1:30 pm	Module 14: Lowering Costs and Increasing Quality Control Through Integrated Automation Siemens Automation Systems – James Jackson
1:30 pm – 2:30 pm	Module 15: Advanced Development Methodologies for Hybrid Vehicles AVL – Bruce Falls
2:30 pm – 3:00 pm	Module 16: Auto OEM Perspective on 12V & 48V Systems Guest Speaker TBA
3:00 pm – 3:30 pm	Module 17: AGM Lead Acid Batteries for Automotive Stop-Start Systems Johnson Controls (JCI) – Craig Rigby
3:30 pm – 3:45 pm	Coffee with Networking
3:45 pm – 4:15 pm	Module 18: Advancements in Nickel Zinc Battery Technology for Micro Hybrids PowerGenix – Salil Soman
4:15 pm – 4:45 pm	Module 19: Applications of Li Ion Batteries in Stop-Start Systems Leyden Energy – Marc Juzkow
4:45 pm – 5:15 pm	Module 20: Latest Technology Developments for 12V and 48V Automotive Applications Valence Technology – Joe Fisher
5:15 pm – 5:45 pm	Module 21: The Role of Super Capacitors in Micro Hybrids CAP-XX – Anthony Kongats
5:45 pm – 6:00 pm	Closing Comments/End of Seminar

*Agenda subject to change without notice

Location

Seminar

Courtyard Marriott
27492 Portola Parkway
Foothill Ranch, CA 92610

Facility Tour & Cocktail Reception

AVL North America, Inc.
AVL California Technology Center (CTC)
25111 Arctic Ocean Drive
Lake Forest, CA 92630



AVL is a proud Supporting Organization for this event

Pricing & Registration

September 30, 2013	Registration Opens
September 30, 2013 – December 3, 2013	Early Bird Rate: \$549/day or \$949 for both days
December 4, 2013 – January 27, 2014	Regular Rate: \$599/day or \$1049 for both days
January 28, 2014 – January 29, 2014	On-Site Rate: \$649/day or \$1149 for both days

- 10% group discount for 3+ attendees from the same corporation/institution (all attendees must register and pay at the same time)
- 10% discount for attendees from a government agency (copy of a valid government ID is required)
- 10% discount for attendees from an academic institution (copy of a valid academic institution ID is required)
- Contact us for additional attractive group discounts for parties of 5+ people attending from the same corporation/institution

Payments can be made via check, bank wire transfer, or electronically using any major bank credit or debit cards.

Questions?

Contact JC Soman at 1-877-PLUGVOLT or juratesoman@plugvolt.com for more details, or visit our website www.plugvolt.com



Program Outline

This seminar will focus on present and future needs of portable and stationary electrochemical energy sources, and highlight the latest technological developments designed to satisfy application requirements.

In-depth discussions will include worldwide status quo of some raw materials presently under research, and technological advances and recent developments in anodes, cathodes, electrolytes, separators and other battery components.

Typical cycle life aspects of designing and manufacturing energy storage solutions will be reviewed from an applications perspective, including electrical and mechanical designing for energy vs. power cells. Topics will cover several existing battery chemistries, including NiMH and Li Ion and their application to xEVs, along with recent advances in some lithium ion technologies, challenges faced in bringing these batteries to a high volume production, and any specific performance requirements driven by such applications.

AVL supports the global electric drive transportation industry through power-train design, development, testing and verification capabilities. AVL's California Tech Center (CTC) provides comprehensive testing services, processes and innovative software & control strategies to manage the integration of alternative fuel and hybrid power-trains while maintaining drivability, safety, and durability. The centerpiece of the facility is a full vehicle test bed that integrates a chassis tester and wheels-off dynamometer with drive-by-wire, wheel-slip, and vehicle dynamics simulation. Don't miss this opportunity for an exclusive inside look at AVL's CTC capabilities and an opportunity to interface with development experts during the Cocktail Reception on Day 1.

Who Should Attend?

- Battery manufacturers, pack assemblers, and R&D engineers
- Applications engineers, engineering and product managers, and end-users of energy storage systems
- Original equipment manufacturers (OEMs)
- Equipment and raw material suppliers
- Academic professors and researchers
- Market analysts and business development professionals
- EV, HEV, PHEV automotive manufacturers
- Key stakeholders and industry enthusiasts interested in increasing their knowledge of energy storage systems

If you are an investor seeking access to new early stage deals, or a CEO or Founder of a new venture looking for funding, visibility and growth, this is an event that you do not want to miss! Hear top tier VCs, Corporate VCs and Angel Investors on the key issues facing Investors and Startup CEOs alike. Industry experts will provide updated analyses and share their experience with the audience. Also, discover some of the hottest early stage companies showcasing their promising technologies and innovations in the battery and energy storage industries as they present live to leading investors.

Biography – Dr. Paul Gifford

Dr. Gifford received his Ph.D. in chemistry, specializing in electrochemistry, from the State University of New York at Buffalo in 1980. His work experience has included positions at Allied-Signal Inc., Gates Energy Products/Energizer, Duracell, Ovonic Battery Company, and Cobasys. Additionally, Dr. Gifford has worked in other areas including electro-catalysis, corrosion, and fuel cells. Paul has authored or co-authored numerous publications and holds several patents in the area of advanced batteries.



Seminar Registration Form

Please fill out the paper form below, or register online electronically at address:

<http://tinyurl.com/PlugVoltJan2014Seminar>

Organization	
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First Name	
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Where did you hear about this seminar?	

Select preferred payment method:

- Wire transfer
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Please forward an electronic copy of the completed registration form to JC Soman at juratesoman@plugvolt.com

Payments can be made via check, bank wire transfer, or electronically using any major bank credit or debit cards. All checks should be made payable to PlugVolt LLC.

Payment details will be sent upon receipt of completed registration form.

Questions?

Contact JC Soman at 1-877-PLUGVOLT or juratesoman@plugvolt.com for more details, or visit our website www.plugvolt.com

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