

Connecticut Global Fuel Cell Center (CGFCC) Seminar Announcement

Seminar Topic: Fuel cell challenges from an aeronautic and military perspective and some examples of systems design considerations

Presented by: Dr. Eric Erdle, EFCECO Consulting, Germany

Date: February 10, 2009

Time: 2:30 – 3:30 PM

Location: CGFCC Conference Room

Abstract: Fuel cells are mostly in the focus for automotive and stationary applications which offer the biggest market potential. While these applications deal with either Hydrogen or Natural Gas as a fuel the situation changes completely if aeronautic or military applications are addressed since these require operation on hydrocarbon fuels (partially with high sulphur content). Some differences and commonalities between these areas are described. In particular air traffic is facing enormous challenges due to European regulation. Some vision on how to cope with these by the use of fuel cell systems is introduced.

Finally two examples of very simple and basic design considerations are described. The first one deals with the consequences of pressurized operation of PEM stacks compared to low pressure, the second one tries to explain why fuel cell APUs for trucks are competitive and may be the first mass application of fuel cells in the future

About the Author: Dr. Eric Erdle has a wide ranging expertise in fuel cell and Hydrogen technologies with a substantial global network of related contacts including industry and Academia, in neighboring fields (e.g. batteries, power generation and distribution, renewable energy, energy policy and strategy) as well as in managing large international R&D projects. Dr. Erdle provides fuel cell related expertise to aerospace industries. Awards, membership's etc. include:

- 1994: Heinrich Hertz Award for Merits in fuel cell development from Karlsruhe University
- and Badenwerk Foundation
- co-founder and for 3 years chairman of the fuel cell working group of the Association of German Engineers (VDI)
- Reviewer at the US DOE Hydrogen and Fuel Cell Peer Review
- Reviewer for the Fuel Cell Program of the Baden Württemberg Ministry of Science, Research and Art
- Deputy Chairman of the Baden Württemberg Fuel Cell Competence and Innovation Center until August 2006
- numerous publications and presentations at conferences worldwide

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