



**IEEE Pittsburgh Section
6th Annual Fall Picnic**

Your entire family is invited to attend our 6th Annual IEEE Pittsburgh Section Fall Picnic. The Outlook Grove in South Park has been reserved for the day. The section will provide hot dogs, buns, condiments, and soft drinks. Each member that is attending is asked to bring a covered dish that will serve 10-12 people.

Activities are planned for children based on age and number of children attending. Also in store is a volleyball game for the adults. Please come out and join the fun. The picnic will start at 1:00pm, and food will be served around 2:00pm. Games and activities will begin after lunch.

Reservations are required so the correct amount of food can be purchased. Please contact Michelle Antantis by phone (412) 393-4912 or e-mail mantantis@dqe.com by September 15th to RSVP. When you call, please let us know how many will be attending, the number and ages of the children attending, and what covered dish you will bring.

Place: Outlook Grove, South Park
Date: September 20th, 2003
Start Time: 1:00 PM
Lunch: 2:00 PM

Directions: From Downtown, take Route 51 South to Route 88 South. From the left lane, go straight onto Corrigan Drive. Follow Corrigan Drive through South Park until the road comes to a T. The Fairgrounds will be on the right. At the intersection, make a left onto Brownsville Road. Follow Brownsville for 2/10 of a mile. Make a left turn at the sign for Outlook Grove. Outlook grove will be on the left-hand side.



Modeling and Simulation of Solid Oxide Fuel Cells

Dr. David J. Hall

Curtiss-Wright Electro-Mechanical Corporation



Solid Oxide Fuel Cells (SOFC's) are a highly efficient, environmentally benign method of electric power production. SOFC systems have been proposed for both electric utility power generation and power sources in electric drive systems for transportation. In order to continue the development of SOFC's, their operation in electrical systems must be understood. The presentation provides some background information on the different types of fuel cells and their basic operating principles. The presentation then focuses on Solid Oxide Fuel Cells. The electrochemical processes that impact SOFC DC power generation will also be described. The presentation concludes with results from some SOFC modeling efforts.

Place: Comfort Inn (Formerly Ramada Inn), Pittsburgh East
699 Rodi Road, Pittsburgh, PA 15235
Date: September 11th, 2003
Social: 6:30 PM
Program: 7:00 PM

This meeting will be of particular interest to members who belong to the PES and IAS societies. Reservations are required for your attendance. If you have questions or you would like to RSVP, please contact Dr. Kal Sen at (724) 696-1611 or e-mail at senkk@ieee.org by September 4th.

From Downtown Pittsburgh: Follow Route 376 East to Monroeville. Take Exit 11-Penn Hills/ Rodi Road. As you exit, the road to the Comfort Inn is the first right turn just before the BP Service Station. Bear right up the hill to the Comfort Inn main entrance.

From Pennsylvania Turnpike 76 (either direction): Take East 57-Monroeville. Proceed to Interstate 376 and travel West to Exit 11-Penn Hills/Rodi Road. As you exit, follow the direction above.

Local member wins the First IEEE PES Custom Power Award

Charles Edwards has received the 2003 IEEE PES Custom Power Award. This year, IEEE Power Engineering Society established this award for honoring individuals for their contributions in the field of custom power technologies and their applications. These devices improve power quality on utility distribution and large commercial electrical systems. Mr. Edwards was honored at the 2003 PES General Meeting in Toronto for his pioneering development of the Dynamic Voltage Restorer (DVR) and Distribution Static Synchronous Compensator (DSTATCOM). Mr. Edwards' work, which started at Westinghouse Science and Technology Center in collaboration with Electric Power Research Institute, was later carried out at Siemens, and now continues at S&C Electric Co.



Tutorial on Transformers

Kieth H. Sueker, PE



The course will cover specification and utilization of transformers, with the focus being on units applied for drive isolation, converters, rectifiers, power supplies, high frequency applications and similar uses. Both the theoretical and practical aspects of these transformers will be presented, including such matters as leakage reactance, harmonic loading, “K” Factor and characteristics of multi-winding units. The coarse material will cover oil insulated, dry-type and water-cooled designs. The tutorial is intended to supplement the education of younger engineers who were not exposed to transformers in their college coursework and to provide an update for more senior engineers. A bound volume of the material presented is included.

The IAS and PES chapters of the Pittsburgh section sponsor this two-day tutorial. Continuing education credits will be granted for completion of both sessions. Please note that this is an updated tutorial originally presented in 1999 that was well attended. The presenter has a wealth of technical and practical knowledge from his experiences in unique industrial design applications.

Place: Comfort Inn (Formerly Ramada Inn), Pittsburgh East
 699 Rodi Road, Pittsburgh, PA 15235
 Date: October 9th and 16th, 2003
 Social: 6:30 PM with complimentary soft drinks
 Program: 7:00 – 9:00 PM

From Downtown Pittsburgh: Follow Route 376 East to Monroeville. Take Exit 11-Penn Hills/ Rodi Road. As you exit, the road to the Comfort Inn is the first right turn just before the BP Service Station. Bear right up the hill to the Comfort Inn main entrance.

From Pennsylvania Turnpike 76 (either direction): Take East 57-Monroeville. Proceed to Interstate 376 and travel West to Exit 11-Penn Hills/Rodi Road. As you exit, follow the direction above.

Registration for the Tutorial is required by Sept 26th. The fee will be:

IEEE Members	\$50.00,
Non-members	\$75.00
Students	\$25.00.

For more information or to register contact John Momyer at 724-864-6777 or john.momyer@crispcontrol.com. Please make registration checks payable to IEEE Pittsburgh Section and mail to John Momyer, 200 Productivity Place, Irwin PA 15642.

Non-Profit Org.
 U.S. Postage Paid
 Pittsburgh, PA
 Permit # 4172

Pittsburgh Section IEEE
 337 Fourth Avenue
 Pittsburgh, PA 15222

