

# Bulletin

*IEEE Pittsburgh Section*

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*All announcements for publication in a particular monthly bulletin are due to the Editor by 20<sup>th</sup> of the previous month. Monthly issues of the bulletin are posted electronically on the website [www.ewh.ieee.org/r2/pittsburgh](http://www.ewh.ieee.org/r2/pittsburgh). The accuracy of the published material is not guaranteed. If there is any error, please bring it to the attention of the Editor.*

- **From the Chair**

The PES Chapter of IEEE Pittsburgh Section received the 2004 Outstanding Large Chapter Award. The award includes a custom-prepared Outstanding Chapter Award banner complete with our chapter name. This banner is suitable for display at any chapter meeting and useful at any local membership drive. In addition, the winning chapter officers are presented with handsomely prepared certificates in recognition of their outstanding leadership. The framed Outstanding Chapter Award certificate was presented by the President of the Power Engineering Society to the winning Chapter Chair at the Awards Luncheon on June 14. Our PES chapter also receives a cash award of \$1000, and PES covers the travel expenses to the award ceremony for the Winning Chapter Chair. It was 1982 when the Pittsburgh PES Chapter last won this award. We congratulate and thank all the members of the Administrative Committee and the members of the IEEE Pittsburgh Section for their effort in winning this award. We look forward to your continued support. Our award-winning report can be obtained by sending your request to me.

The July Executive Committee (Excom) meeting was held at the University of Pittsburgh. It was verified that all the Student members of the Excom are upgrading their membership to at least IEEE Member grade level to comply with the RAB Operations Manual.

Local IEEE members filed a petition with IEEE to create an Electro-Magnetic Compatibility Chapter in Pittsburgh. The Excom welcomes the Chapter Chair Michael J. Oliver and Vice Chair Harry Godlewski.

Kal Sen

- **Consultants Network Meeting**

Date: Tuesday, July 26

Place: Westinghouse Energy Center, Monroeville  
(Directions on page 4)

Social: 6:30PM Program: 7PM

Plans for this meeting are being finalized and will be emailed to all CN members. If you are a consultant offering engineering services, the Consultants Network is for you. Network with other consultants and be included in CN's on-line listing of consultants, which is used by companies in need of consultants. For more information, contact George Crawford at (412) 675-9164 or [gwc@psu.edu](mailto:gwc@psu.edu).

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- Electric Vehicles and the Land Speed Record



Speaker: Nigel P. McQuin of McQuin Electrical Power Consulting, Inc.  
Place: Westinghouse Energy Center, Monroeville (Directions on page 4)  
Date: Wednesday, July 27, 2005  
Time: 6:30 PM - social with pizza and pop 7:00 PM - program

In May 2000, a group of college students had a dream of building an electric car, with the intention of breaking the existing land speed record. In October 2004 at the Bonneville Speedway on the salt-flats of Utah, they achieved this goal establishing three new land speed records. The most outstanding achievement was setting the world record of 321.83 mph for the fastest electrically-powered wheeled vehicle, which supercedes that previously held by the European TGV high-speed train.

Our speaker, Mr. Nigel McQuin of McQuin Electrical Power Consulting, Inc., has been involved with many pulsed power-supply designs and a wide variety of induction machinery designs and applications. Both areas of expertise have played an important role in the development of electrical machinery for electric and hybrid-electric vehicles, for both civilian and military applications. This has led to the design of specialized traction drive motors for some US university electric racing car teams, as well as a major student project for an all-electric Class III land-speed-record car. Some details of these designs, the development process, and the race trial performance will be presented.

Mr. Nigel McQuin gained a 1st Class Honors Degree in Electrical Engineering from Imperial College, London, England in 1977, specializing in electrical power systems and rotating machinery. He has been employed by GEC Large Machines Co. (now Alstom), Brush Electrical Machines Co., and PSM High Power Test Laboratory in East Pittsburgh. In 1996 he became self-employed as an independent Electrical Power Consultant.

This meeting is sponsored by the PES and IAS societies. For more information or to register, contact Chuck Urso at 412-338-4871 or by email at [curso@llitechnologies.com](mailto:curso@llitechnologies.com) by July 26, 2005. This talk is intended for an audience of all ages.

- **Technical Job Placement Strategies**

Speaker: Mr. Matt Fenton, President, Oxford Technical Inc.  
Date: Tuesday, August 16, 2005  
Time: 6 PM  
Place: University of Pittsburgh, 360 Benedum Hall  
Food: Complimentary (no charge) light snack foods before and after the meeting

The Pittsburgh Section is pleased to announce that Mr. Matt Fenton, President of Oxford Technical, a major technical consulting firm in the Pittsburgh area, has agreed to address our section. Mr. Fenton will clarify how IEEE members can best make use of the services of Oxford and similar placement firms. The purpose of this meeting is to give IEEE Members an edge in utilizing professional placement agencies. As a technical and professional society, one of IEEE's goals is to assist its members in their career development. This meeting is such an offering and is suggested for those Members who are unemployed, under-employed or seeking change.

Oxford Technical specializes in supplying technical professionals to engineering, architectural, biomedical, and manufacturing firms in Western Pennsylvania. Oxford serves both professional job seekers and corporations seeking professionals. Oxford's goal is to attain a perfect match between the position and the candidate.

**Attendance is limited to the first 20 IEEE Members (any grade, any Section) who reserve space.**

Reservations: Joe Kalasky 724-838-6492 j.kalasky@ieee.org Kindly supply your name, telephone number, email address and IEEE Member Number. If you reserve and then cannot attend, please notify Joe Kalasky as we expect a waiting list.

*Joe Kalasky is the Pittsburgh Section Professional Activities Chair and is a Member of the IEEE-USA Employment and Career Strategies Committee.*

- **Picnic in August**

IEEE GOLD is planning a networking event for August. The event will be a picnic with games in which younger members will be teamed with senior members. Chuck Jewart, Chair of the GOLD Committee, is looking for Senior Members and recent graduates to assist in planning the event. Anyone interested should contact Chuck at [cjewart@enr.pitt.edu](mailto:cjewart@enr.pitt.edu).

***Directions to Westinghouse Energy Center:***

From Pittsburgh, take Interstate 376 East (Parkway East). Take Exit 14A to Monroeville. Cross Business Rt 22 at the traffic light and proceed on Rt 48 South (Moss Side Boulevard) approximately 1/2 mile (two traffic lights). The second traffic light is at a four-way intersection with Exxon Station on the right and Sunoco Station on the left. Turn left onto Northern Pike. Proceed ~ 0.2 miles and turn right at the first traffic light onto Westinghouse Drive. Travel 0.7 mile to the three flags where the building's main entrance is located. Parking in the evening will be plentiful in the large area in front of the building. Enter through the main entrance and check with the security guards inside. You will be directed to the proper auditorium for the presentation.

If traveling the Turnpike, take Exit 57 (Monroeville). After the Toll Plaza, get in the left lane to get on Business Rt 22 West. At the first light, turn left onto Rt 48 South (Moss Side Boulevard) and follow the above directions.

- **An Evening at PNC Park with the Pittsburgh Pirates and Fireworks**

Come out and enjoy an evening at PNC Park with the IEEE Pittsburgh Section. It will be Fireworks Night with the Pittsburgh Pirates hosting the Cincinnati Reds. Come and join the PES and IAS members and guests for a fun-filled evening.

Date: Friday, August 26, 2005

Place: PNC Park (Section 323)

Time: Game starts at 7:05PM

Host: Andrew Novotny

The cost of the tickets is \$16 each. Our seats will be in Section 323 on the third base side. Please reserve your seat(s) early by contacting Andrew Novotny at (412) 351-4954 or at [andrewnovotny@ieee.org](mailto:andrewnovotny@ieee.org). Please make checks payable to "IEEE Pittsburgh Section" and mail them

to: Andrew Novotny

514 Price Ave

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- **Students Tour Diesel Engine Plant**

On Friday, April 15<sup>th</sup> a group of students from the University of Pittsburgh toured GE Transportation's Grove City Diesel Engine plant, located in Grove City, PA. The tour was an all-day event with the day being split into two parts. The morning program consisted of presentations from all business leaders at the plant, describing the various facets of a production environment. These business leaders included members of the staff, finance, life-cycle cost, quality, engineering, and production groups. Each leader gave a general overview of how their section of the business helps ensure a high-quality, cost-effective product. The morning session concluded with lunch, after which a brief safety overview was given before the plant tour began.

The tour started in the area of the plant where most of the parts begin the long haul to final assembly. In this area, rough castings are made into new parts for the engine. These parts then gradually make their way across the plant floor to main assembly where they are assembled into an engine. The plant is laid out so that all parts flow toward main assembly to keep efficiency and production high. By following these production lines, students were able to actually see an engine form from rough castings all the way to a finished product. The second part of the tour involved the rebuild area, where engines are torn down and re-conditioned. This area is known as the 'UX' line, or unit exchange. Most of the major rail lines have service contracts for their fleets, under which the locomotives are scheduled for a number of overhauls during their life span. These engines are sent back to the plant for reconditioning in the UX line. The tour then concluded with one-on-one discussions with a few of the business leaders. Students had the chance to have questions answered about the plant and job opportunities.

GE Grove City is the production shop for the diesel engines that are used to build locomotives at the GE plant in Erie, PA. Engines for all models of locomotive are produced here, including engines for the new Tier II compliant Evolution Series locomotives. More information can be found at [www.getransportation.com](http://www.getransportation.com).

### Calendar for 2005 Pittsburgh Section of IEEE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Section Exec. Comm. Mtg.	20 Point Park Univ.	17 UPitt Oakland	17 CMU	21 UPitt Greensburg	26 Papa J's	16 UPitt Oakland	No meeting	18 UPitt Oakland				
Section Mtg.		19 Robot Car Race		28 History Dinner								
Life Member	Westinghouse Museum tour & Nuclear Pgm					23 Distributd Generation						
Communication			25 New Tech. for Tele. Mon.									
Computer			16 Nxt Gen Search Eng					17 TBD				
EMB												
PES/IAS	26 Adaptive Identification	23 Rail Guns	30 Project Management	28 Electric Transmission: End of an Era	31 Wind Farm Tour	20 Robot Servicing of Hubble 29 Shielding Theory	27 Electric Vehicles and the Land Speed Record	26 Pirates game				
Magnetics			31 Half Metal Spin Torque	29 Magnetic Recording								
Robotics					5 Miniature Micro/Nano Robotics	20 Robot Servicing of Hubble						
Signal Processing				20 Wireless Ntwk Des.								
Consultants Network				26 Contract Employment	24 Consult Acct reqmt.	28 Non-disc. Agreement	26 Networking					
GOLD					21 1st mtg			Picnic				
Prof Activities								16 Job Placmnt Strat.				
Students Activities				15 GE Plant tour								

TBD = to be determined