

FEBRUARY SECTION MEETING

Sponsored by

MAGNETICS SOCIETY

THURSDAY, FEBRUARY 16, 1984

• **TOPIC: DOUBLE INJECTION DEVICES**

Speaker: Prof. H. F. Henderson
University of Cincinnati
Cincinnati, Ohio

Place: Carnegie Mellon University
Scaife Hall Conference Room

Time: Program at 3:30 PM

Dinner with speaker —
Call by Feb 15, 1984 to:

DR. M. G. GUVENC — 624-5410

or

DR. D. MILLER — 256-2034

bulletin

Pittsburgh Section

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FEBRUARY, 1984

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EXECUTIVE MEETINGS of the Pittsburgh Section are generally held during the afternoon of the day the Section Meeting is scheduled, usually the third Thursday of each month.

The Executive Meetings are open to the general membership of the Section. Contact the Section Secretary, Bob Cunningham for details as to the time and place for the Executive Meetings you would like to attend.

CHANGE OF ADDRESS

Send all changes of address (local or national) directly to: The Institute of Electrical and Electronic Engineers, Inc., Coding Department 445 Hoes Lane, Piscataway, NJ 08854. This will result in faster service to you, as all IEEE computer mailing lists are processed in New Jersey.

PITTSBURGH SECTION HISTORY

1902-1983

As the Institute celebrates its 100th year, it is appropriate the Pittsburgh Section review its proud heritage. Unfortunately, engineers are too busy developing the products and services needed to advance the quality of life to record much of their work. There are some records which provide a fascinating insight into the lives of our preceding engineers.

The Section was organized October 13, 1902, with Mr. P. M. Lincoln as the Chairman. He later became National President. The only section to precede Pittsburgh was one in Minnesota, which was organized six months earlier.

When the Institute was first organized it did not include a section organization. It was through the efforts of Doctor Charles F. Scott, the National President and a member of the Pittsburgh Section, that the Section plan was adopted by the Institute. In the early 1900's it was appropriate that an Institute Section should be organized in Pittsburgh. The City was the focus of electrical engineering. Many manufacturing companies were based in the area with their large cadre of engineering talent.

The first Section technical meeting, attended by approximately 100, was on December 4, 1902, in the Westinghouse Club rooms at 736 Penn Avenue, Wilkensburg.

The first student branch to be established was at Pennsylvania State College on December 20, 1902. This branch was taken into the Pittsburgh Section along with a territorial annexation in 1938. The student branch at the University of Pittsburgh was formed on February 26, 1914. Professor H.E. Dyche, Sr., was instrumental in establishing this branch and then encouraging its activities. He later became Section Chairman. Some 21 students attended the first meeting held in Thaw Hall. The student branch at West Virginia University was formed on November 13, 1914. Early membership consisted of 6 students. The student branch at Carnegie Institute of Technology was formed on May 18, 1915. The first annual banquet of this student branch was held May 20, 1915, in the German Club in Pittsburgh. The program for this first meeting is headlined by the phrase, "Eat, drink and be merry, for tomorrow you may flunk."

The Section can be proud of the record of advancement made by its members and officers to a position of leadership in the national organization. At least 12 members have served as Section chairmen and later advanced to National President.

Notable among these was Charles F. Scott. Many of you will recall the "Scott

connection" which changed 2 phase alternating current to 3 phase by "T" connecting the transformers. This development was introduced in 1894. He gave enthusiastic service to the profession and in particular to the Institute. As its President, he founded the High Voltage Transmission Committee.

Louis B. Stillwell was another outstanding Section member. While employed at Westinghouse, he developed the "time limit circuit breaker" and contributed to the general layout and design of the first plant of the Niagara Falls Power Company.

Mr. Paul M. Lincoln, also an engineering executive of Westinghouse, invented the Synchroscope, a device now in universal use wherever AC machines are paralleled.

A most notable Pittsburgh Section member was George Westinghouse. He is best known for his organization of the electrical manufacturing giant which bears his name. His best known invention is the air brake which was developed for the railroad industry. In his early years he served in the Union Army during the Civil War.

The LAMME medal was established by the bequest of Benjamin C. Lamme. This outstanding Pittsburgh Section member held more than 150 patents which he received during his tenure with Westinghouse. His most notable inventions included the "umbrella generators" first used in Niagara Falls, the synchronous converter, and the series commutator-type motor, which is now in use in many electric transit systems.

Another, local engineer who made many contributions to society was Frank Conrad, best known for his outstanding work in the field of radio broadcasting and short wave radio transmission. Less known was his work with the development of the arc-lamp.

The first LAMME medal to be presented by the AIEE was awarded to Pittsburgh Section member Alan B. Field in 1928 for "The mathematical and experimental investigation of eddy current losses in large slot wound conductors in electrical machinery."

The second LAMME award went to Rudolph Hellmund for his development work on various kinds of induction motors.

The present members of the Pittsburgh Section are justifiably proud of their heritage. The previous members have contributed so much to the technical advancement of our country and the world. We in this Section should resolve, as we celebrate the 100th year of the Institute, to contribute even more to the well being of all the people on the earth.

—Ralph Simmons

POWER ENGINEERING SOCIETY

Offers a Short Course on

REACTIVE POWER CONTROL

to be held on six successive Tuesdays and Thursdays beginning March 20, 1984 from 6:30 p.m. - 9:00 p.m. at the Westinghouse Gateway Center Auditorium, Gateway Center, Pittsburgh, Pa.

For Whom:

Engineers employed with electrical utilities and industrial users responsible for planning, designing and studying facilities for voltage control and power factor correction.

Course Outline:

Session 1	3/20/84	Introduction, Steady-State Reactive Power Control
Session 2	3/22/84	Shunt and Series Capacitors, Reactors, and Synchronous Condensers
Session 3	3/27/84	Principles of Static Compensators
Session 4	3/29/84	Reactive Power Compensation and the Dynamic Performance of Transmission Systems
Session 5	4/3/84	Reactive Power Management
Session 6	4/5/84	Reactive Compensation in Industrial Applications

For More Information, Contact:

Diane O'Neill
Allegheny Power Services Corp.
838-6198

Tom Dionise
Westinghouse Electric Corp.
824-9100, ext. 270

POWER ENGINEERING SOCIETY NOMINATIONS FOR 1984/1985 OFFICERS

In accordance with the PES Pittsburgh Chapter by-laws, the following slate of candidates for elected offices for the 1984-85 year have been approved by the Executive Committee:

Chairman	T. Hayes Westinghouse Electric Corp.
Vice Chairman	J.A. Kalasky Allegheny Power Service Corp.
Secretary	R. R. Carpenter McGraw-Edison Company
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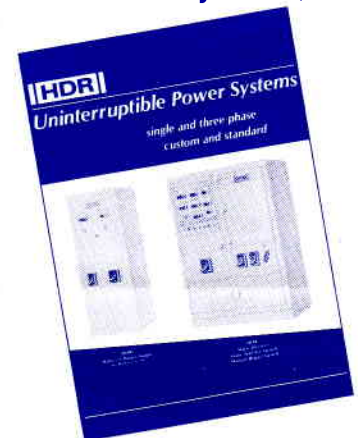
Additional nominations can be made by submitting a nominating petition by February 22, 1984 containing fifteen or more signatures of Pittsburgh Chapter PES members together with a statement signed by the candidate stating he/she is willing to serve.

Submit nominations to: PES Nominating Committee Chairman
ALCOA Power Engineering Group
1501 ALCOA Building - WPH5
Pittsburgh, PA 15219

The final slate of candidates will be published in the April Bulletin with elections held at the PES April meeting.

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IEEE FEBRUARY MEETINGS

SECTION MEETING — See Front Page

FEBRUARY 8 WEDNESDAY	ENGINEERING MANAGEMENT SOCIETY	FEBRUARY 22 WEDNESDAY	UPPER MONONGAHELA SUBSECTION JOINT WITH NSPE ENGINEERS' WEEK
<ul style="list-style-type: none"> TOPIC: PERSONAL FINANCIAL PLANNING FOR THE 80's Speaker: Richard P. Coleman, IDS, Inc. Place: ESWP/Wm. Penn Hotel Time: "Warm Up" — 11:30 A.M. Lunch — 12:00 Noon Program — 12:30-1:15 P.M. Cost: For Lunch \$3.75 per person Reservation: By Feb. 6 (NOON) to: Steve Mauser — (412) 824-9100 <p>ABSTRACT: Careful analysis of your unique financial situation and your objectives followed by a solid program plan are vital to your future.</p>		<ul style="list-style-type: none"> TOPIC: RPI'S VENTURE CAPITAL INCUBATOR PROGRAM Speaker: Dr. Jerry Mahone, RIP, Troy, N.Y. Place: Hotel Morgan Time: Social Hour: 6:00 Dinner: 6:45 Program: 7:30 Reservations: By Feb. 15, 1984 to: Butch Hill - 304-293-6371 	
FEBRUARY 9 THURSDAY	MAGNETICS SOCIETY		ADVANCE NOTICES
<ul style="list-style-type: none"> TOPIC: INSTABILITIES IN FERROMAGNETIC RESONANCE Speakers: J.O. Artman S.H. Charap D.J. Seagle Electrical Engineering Dept. Carnegie-Mellon University Place: University Club Oakland Time: Dinner at 6:00 PM Program at 7:30 PM Reservations: For dinner only by Feb. 8 to Douglas Adam 256-1965 		MARCH 8 THURSDAY	MAGNETICS SOCIETY <ul style="list-style-type: none"> TOPIC: STRONG MAGNETOELASTIC EFFECTS IN NEW MAGNETOSTRICTIVE MATERIALS Speaker: H. T. Savage Naval Surface Weapons Center Silver Springs, MD Place: University Club Oakland Time: Dinner (optional) 6:00 PM Meeting 7:30 PM Reservations: For Dinner only to K. Narasimhan 923-2955 <p>ABSTRACT: NSWC is presently developing two magnetostrictive materials that complement each other in applications</p>
FEBRUARY 15 WEDNESDAY	POWER ENGINEERING SOCIETY		MARCH 13 TUESDAY
<ul style="list-style-type: none"> TOPIC: ZINC OXIDE ARRESTORS Speaker: A. Robert Hileman Westinghouse Advance Systems Technology Place: Tambellini's Seventh Avenue, Pittsburgh Time: Cash Bar — 11:30 A.M. Optional Lunch — 12:00 Noon Meeting — 12:30 P.M. Cost: Optional Lunch — \$7.00 Meeting — No Charge <p>Reservations by February 10 to: RICK MILLER — Westinghouse Electric Corp., — 829-4774 JOE KALASKY — Allegheny Power Service Corp. — 838-6492</p>		POWER ENGINEERING SOCIETY <ul style="list-style-type: none"> TOPIC: COLLEGE STUDENT NIGHT Place: Executive Suite, 62nd Floor U.S. Steel Building Pittsburgh Time: Social Hour with students 5:00 PM Dinner 6:30 PM <p>Reservations by March 9 to: Mark McGranaghan McGraw-Edison Co. 873-2295 or Howard Snyder Duquesne Light Co. 393-6658</p>	
FEBRUARY 15 WEDNESDAY	COMPUTER SOCIETY		PES MARCH 20 SEMINAR - See Page 3
<ul style="list-style-type: none"> TOPIC: ADVANCED MULTI-MICROPROCESSOR ARCHITECTURE A discussion of a multi-processor super-micro architecture which supports simultaneous high-speed data acquisition, analysis, and high-resolution raster graphics display. Speakers: Bill Blundon and Bill Trail, MassComp, Inc. Place: Engineers Society of Western Pennsylvania Time: 6:00 PM — Cocktails 6:30 PM — Dinner with speakers 7:30 PM — Presentation For Dinner reservations (\$14.00) call: Clyde Chittister at 622-6270 or Ray Fretterd at 622-6236 		MARCH 22 THURSDAY	UPPER MONONGAHELA SUBSECTION JOINT WITH VEHICULAR TECHNOLOGY SOCIETY <ul style="list-style-type: none"> TOPIC: AUTOMOTIVE ELECTROMAGNETIC COMPATIBILITY Speaker: Dr. James Harvey Packard Electric Division GM-Warren, Ohio Place: Holiday Inn / Morgantown, WV Time: Social Hour: 5:30 PM Dinner: 5:45 PM Program: 7:30 PM Reservations by noon March 22 to Butch Hill (304) 293-6371