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CHICAGO SECTION · IEEE · INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

NOVEMBER 1972

Barge-Mounted Nuclear Power Plants

Jack E. Stader, Brown & Root, Inc., will discuss "Barge-Mounted Nuclear Power Plants" at a joint meeting of the IEEE Power Engineering Society, the Fox River Valley Chapter of the American Society of Mechanical Engineers, and the West Suburban Division of the Western Society of Engineers. The meeting will be held November 15 at Midwest Country Club and wives are invited.

Building a complete nuclear power plant on a barge offers a challenging solu-

tion to some of our growing power generation requirements. Stader will highlight the reasons for the growing interest in this type of plant and will describe current engineering approaches to the concept, off-shore siting considerations, and approaches to construction and transport of the barge-mounted plant.

Jack E. Stader received a BS in mechanical engineering from the University of Michigan in 1948. For 17 years, he has been associated with nuclear power plant engineering, starting with Enrico

Fermi Unit 1 fast breeder reactor plant built near Monroe, Michigan. He is a Registered Engineer in the State of Michigan.

Midwest Country Club is at 35th & Cass Avenues, Oak Brook, Ill. (Midwest or Summit from the north; Midwest exit from eastbound tollway, Illinois 83 exit from westbound tollway.) Social hour, 6:00 p.m.; dinner, 7:00 p.m.; meeting, 8:00 p.m. Cost of roast sirloin of beef dinner, \$5.50. For reservations, call 263-5954.

IEEE OFFICE: 263-5954

Chicago IEEE Calendar

- | | |
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| Nov. 1 | Fox Valley/Engineering in Medicine & Biology: Medical Engineering; Sharko's Village, Villa Park |
| Nov. 7 | Executive Committee Meeting: Social hour 5:00 p.m., Meeting 5:30 p.m.; Section Meeting: Clearing The Air — Federal Air Pollution Laws; IEEE Regional Lecture Tour; Black Steer Restaurant, 6446 W. North Avenue, Chicago |
| Nov. 8 | Industrial Applications/Industrial Electronics: Interpretation of OSHA; Nielsen's Village, Villa Park |
| Nov. 15 | Power Engineering Society: Barge-Mounted Nuclear Power Plant; Midwest Country Club, 35th & Cass Avenue, Oak Brook |
| Nov. 15 | Northwest Subsection: Vehicular Location System; Maitre d' Restaurant, Higgins & Arlington Heights Roads, Elk Grove Village |
| Dec. 4-5 | Fall Conference on Broadcast & TV Receivers, Sheraton O'Hare Motor Hotel, 6810 N. Mannheim Road, Rosemont, Illinois. |

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A Message

From The

Secretary



We are now on our way to another successful year in the Chicago Section of the IEEE. To date, many Groups and Society chapters have complete programs through the fall of 1972 and into the spring of 1973. These activities cover a wide spectrum and should be of interest to every Chicago Section member.

As secretary of the Chicago Section, I would like to see more Group and Society chairmen attend the Executive Committee meetings (the second Tuesday of the month) so that the Chicago Section can be kept abreast of your activities. This is also a good time to discuss any differences that your Group or Society may have with the Chicago Section.

You are all aware that the **SCANFAX** staff is working to get **SCANFAX** to you on time. We look forward to the Groups and Societies publicizing their activities in **SCANFAX** so all members of the Section can attend any meeting of interest. The Chicago Section Executive Committee feels that this is the best way of advertising your coming events and activities. We plan that **SCANFAX** will reach you early in the month so that you can arrange to attend the various meetings.

As secretary of the Chicago Section, I hope to see many of the new chairmen at the Executive Meetings to help us appropriate budgets, know the financial situation we are in, and make future plans for the Chicago Section.

*Jim Ralston
Secretary*

Instrumentation & Measurement Group 1972 Fall Conference

The Group on Instrumentation and Measurement held its first meeting in some time during the National Electronics Conference in Chicago, October 9. Because many Chicago area engineers attended NEC, scheduling our '72-'73 kick-off meeting insured a good turn-out.

The subject of the meeting was "New Approaches to Precision Instrumentation." The meeting was jointly sponsored with the Mid-America Section of the Precision Measurement Association. Participants included Ballentine, Fluke, Hewlett-Packard and Keithley — all noted for their precision instrument know-how.

The 1972 Fall Conference on Broadcast and Television Receivers will be held December 4-5, 1972, at Sheraton O'Hare Motor Hotel, 6810 N. Mannheim Road, Rosemont, Ill. 60018. Registration fee is \$4.00 for IEEE members; \$6.00 for others. Cost of the consumer awards luncheon is \$5.00.

Four different sessions are planned: Session 1, Deflection; Session 2, Power Integrated Circuits; Session 3, New Consumer Electronic Products; and Session 4, Semiconductor Devices and their Application. (Continued on page 3)

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Clearing The Air

At the Chicago Section Meeting on November 7, 1972, Dr. John C. Redmond, Convair Aerospace Division, General Dynamics, will discuss "Clearing the Air—the Clean Air Act and Its Implications for Engineers." This talk is one of the IEEE Regional Outstanding Lectures.

Few pieces of Congressional legislation have had more of an immediate resounding effect on U.S. industry than the Clean Air Act. On November 18, 1971, a Federal judge, acting under the authority of the 1970 Clean Air Amendments, ordered 23 major plants in Birmingham, Alabama to shut down during an air pollution emergency. Could this happen in the Chicago area? What responsibility do engineers have for keeping the air pollution-free? What tools are available to plant managers and design engineers? Dr. Redmond will cover the need for electronic instrumentation, pollution detection with lasers, monitoring pollution with satellites, electric power plants and air pollution, and the hazards to health.

John C. Redmond received his BS in geological engineering from the University of North Dakota and his PhD in geophysics from Penn State University. Since college he has specialized in geoscience electronics and was chairman of the Administrative Committee of the Group on Geoscience Electronics in 1971. He is manager of research and development of Convair Aerospace Division, Fort Worth, General Dynamics.

The meeting will be held at Menard's Black Steer Restaurant, 6446 W. North Ave., Chicago, Ill. Social hour, 6:00 p.m.; dinner, 7:00 p.m.; speaker, 8:00 p.m. Top steak dinner, including tip and tax, \$6.00. For reservations, call 263-5954.



1972 FALL CONFERENCE (continued)

An industry cocktail party, sponsored by M. Gottlieb & Associates and Videocraft, on Tuesday evening, will provide an opportunity for relaxation.

For further information, call 263-5954.

Medical Engineering

A joint meeting of the Fox Valley Subsection and the Group on Engineering in Medicine and Biology will be held on Wednesday, November 1 at Sharko's in Villa Park. John H. Maness, Medical Engineering Division, ITT Research Institute, will discuss "Medical Engineering." For dinner reservations, call 263-3778 by October 30.

Engineering techniques are being used to solve medical problems that are not solvable by traditional medical approaches. Developments such as heart pacemakers and small portable EKG units worn by patients outside the hospital point out the relationship between medical engineering and the medical profession. Maness will discuss past developments, what is being done at the present, and what the future holds for this rapidly growing field.

John H. Maness is a senior biomedical engineer in the Medical Engineering Research Division of IIT Research Institute. He specializes in physiological monitoring and instrumentation and in the general areas of medical engineering. His present responsibilities include identification and coordination of technology applicable to medical engineering. He is also the project leader for a research program in male contraception. Other recent experience covers health care screening instrumentation, electrical safety testing in hospitals, and respiratory and EKG screening.

Previously, Maness was a staff engineer at the Xerox Center for Health Care Research, Houston, Texas, where he did applied research in electronic instrumentation for health screening, as well as design and clinical testing of a pulmonary computer and safety testing devices.

As a consulting engineer in Houston, 1963-71, he developed infrared instrumentation testing, data acquisition systems for medical research, and a portable heart-lung machine.

From 1966-69, Maness was general manager of Texas Medical Instruments Corp., and was responsible for founding a company to do custom biomedical instrumentation. He developed blood flowmeters and diagnostic flowmeters, as well as a monitoring system for the School of Aerospace Medicine and an artificial heart power and control system for the Texas Heart Institute.

Maness was chief engineer, Department of Surgery, Baylor University College of Medicine, Houston, 1964-68. He had direct responsibility for recruiting, train-

ing, and supervising patient-monitoring technicians, and also did applied research in assisted circulatory devices.

Maness received a BA and BS in electrical engineering from Rice University. He is a registered professional Engineer in Texas. He is a member of IEEE, and a member of the Group on Engineering in Medicine and Biology.

Social hour, 6:00 p.m.; dinner, 7:00 p.m.; meeting, 8:00 p.m. For reservations, call 263-3776 by October 30.



Have You

Upgraded

Your Membership?



Vehicular Location System

The November 15 meeting of the Northwest Subsection will feature a talk on a Fixed Route Vehicular Location and Data System by Jerry Johnson of Motorola. He will discuss the general parameters necessary for a fixed route application such as a bus transit system. From these parameters, Johnson will derive the functional design requirements, data format requirements, and hardware requirements suitable for a bus transit system. He will also summarize the results of a 500-unit fixed route location and data prototype system that has been in operation for over two years on the CTA.

Jerry Johnson graduated from Purdue University in 1957, and has been employed at Motorola for 15 years. His entire engineering career has been involved in product design of two-way radio communications equipment; his present position is Engineering Section Manager at Motorola Communications Division.

The meeting will be held at the Maitre d' Restaurant at Higgins and Arlington Heights Roads, Elk Grove Village. Cocktails at 6:00 p.m., dinner at 7:00 p.m. and meeting at 8:00 p.m. Please call 263-5954 for reservations by Friday, November 10. As always, you are invited to attend the meeting whether or not you plan to have dinner with us.



At the October 10 IEEE meeting, Robert H. Tanner (center), president of IEEE, presented a certificate to William Kusner (right), recognizing his services as the 1971-72 chairman of the Chicago Section. Henry Setton (left), present chairman of the Chicago Section, looks on.

The Chicago Section

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