

THE IEEE NORTH JERSEY SECTION NEWSLETTER

December 2016

December 2016, Highlights of 2016

Annual Awards Reception

The Awards Reception was held at the Birchwood Manor, Whippany, NJ, on Sunday, May 1st, 2016

Adriaan van Wijngaarden, Section Chair, introduced Peter Eckstein, IEEE-USA President who gave a few introductory comments.



Adriaan van Wijngaarden, Section Chair, then presented the following IEEE Awards.



Fellow Award to Ajay Poddar of the Synergy Microwave Corporation for contributions to microwave oscillators.



Recognition of Virginia C. Sulzberger, IEEE Fellow, entry into the National Academy of Engineering for the leadership and development of electric power system reliability standards.



Region I - Teaching Excellence Award to Harry Roman for outstanding contribution to technological innovation and education.

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Adriaan van Wijngaarden, Section Chair, continued with the presentation of the following IEEE Awards.



Region I - Technological Innovation Award to Emad Farag for outstanding leadership and significant innovations in wireless modem architectures.



Region I - Support of the IEEE Mission Award to Ajay Poddar for outstanding leadership and service to the IEEE North Jersey Section and to its AP/MTT Joint Chapter.



Region I - Support of the IEEE Mission Award to Hong Zhao for outstanding leadership and service to the IEEE North Jersey Section.



Power Engineering Society Outstanding Engineer Award to James Hubertus for leadership and contributions in electric power system relay protection.

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Adriaan van Wijngaarden, Section Chair, continued with the presentation of the following IEEE Awards.



Communications Society Stephen O. Rice Prize to Thomas L. Marzetta for Energy and Spectral Efficiency of Very large Multiuser MIMO Systems.



MTT Microwave Application Award to Dr. Ulrich L. Rohde for significant contributions to the development of low-noise oscillator performance.



North Jersey Section 2015 Distinguished Service Award to Naresh Chand in recognition of leadership and outstanding service to the Section.



North Jersey Section 2015 Distinguished Service Award to Kenneth J. Oexle in recognition of leadership and outstanding service to the Section.

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Adriaan van Wijngaarden, Section Chair, continued with the presentation of the following IEEE Award.



North Jersey Section 2015 Distinguished Service Award to Russell C. Pepe in recognition of leadership and outstanding service to the Section.

Weston Meters Milestone Dedication

The 'Weston Meters 1887-1893' IEEE Milestone was dedicated at Newark College of Engineering, New Jersey Institute of Technology, on Friday, September 23rd, 2016.

Before the dedication, a tour of the Robert W. Van Houten Library Weston-related Holdings was conducted by Matthew Brown, the Digital Projects Librarian. Online references include: <http://weston.ftldesign.com/>

The dedication ceremony was held in the Eberhardt Hall, Room 112, with a welcome by Dr. Moshe Kam, Dean, Newark College of Engineering, NJIT, and comments by Fadi Deck, NJIT Provost and Senior Executive Vice President.

It continued with 'The Weston Legacy' by Dr. Eiju Matsumoto of The Society of Historical Metrology, Japan. In 2007, he presented a

paper at the IEEE Conference on the History of Electric Power which was very well researched with photos of many meters. See:

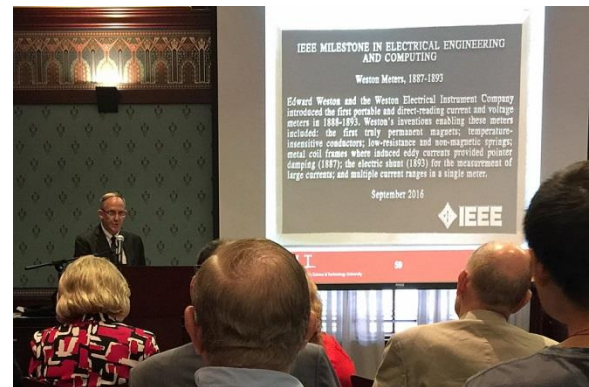
<http://ieeemilestones.ethw.org/images/e/e2/Matsumoto-Newark.pdf>

Then, the 'Initiation of the Weston Meters Milestone' was given by David Hass, former Director ECE Laboratories, NJIT, and now with the Milwaukee School of Engineering. To see the application, see:

http://ethw.org/Milestones:Weston_Meters

Next, 'Our Time Had Come' - Electrical Engineers and The Birth of Modern America was presented by Mary Ann Hellrigel, IEEE History Center.

Then, Edward Weston's Inventions, Enterprises, and Commercial Projects were presented by Moshe Kam, Dean, NCE, NJIT.



Then above, The IEEE Milestone Program and the Weston Meters Milestone topics were presented by Barry Shoop, IEEE President and CEO.

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Weston Meters Milestone Dedication (Cont.)



Milestone Unveiling by Barry Shoop, IEEE President and CEO, by Dr. Eiju Matsumoto, David Hass, and Dr. Adriaan J. de Lind van Wijngaarden, Section Chair.



David Hass, Director ECE Laboratories, NJIT, was the milestone submitter. On right is Dr. Eiju Matsumoto, who helped with the milestone research and is shown with his wife and secretary. They traveled from Tokyo. He wrote a book entitled "Doctor Eiju Matsumoto and Weston Meters."



Shown at lunch after the dedication are members who worked on the milestone: Howard Leach, Mrs. and Dr. Eiju Matsumoto, Carl Sulzberger, seated, and David Hass, the submitter.

Eiju Matsumoto and his wife traveled all the way from Tokyo to attend the dedication. He graduated from the Shizuoka University in 1957 with a degree in Electronics Engineering and joined the Yokogawa Electric Company as a Research Engineer. In 1993-94 and 2004 he was a visiting Fellow at the Smithsonian Institution and in 2001 he received his PhD at Tamagawa University where wrote two books on meterology.

MTT/AP Symposium and Mini-show

The IEEE North Jersey Section MTT/AP-Society Joint Chapter held the 31st Annual Symposium and Mini-Show on Thursday, October 6th, 2016, at the Hanover Manor, East Hanover, NJ. The Symposium held the very current topics listed below and the Mini Show featured the latest devices and services.

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MTT/AP Symposium and Mini-show (cont.)

Opening Remarks by George Kannell, Program Chair were followed by the seminars.

Easy to Manufacture and Very High Performance Microwave or Millimeter Wave Horn Antennas



by Jeffrey Pawlan, Consultant and Owner, DML, Pawlan Communication

Advanced Streamlining Methods for Power Amplifier Design Using Enhanced Load-Pull Data



by Andy Hughes, CAD Application Engineer, National Instruments

Critical Issues in the Development of Phased-Array Antenna-Based Systems



By Dr. Murthy Upmaka, Senior Application Specialist, Keysight Technologies

Blade Antennas For Direction-Finding



Dr. John Howard, President, ET Industries, Inc.

Amateur Radio: on the Cutting Edge of Technology and Public Service



By Joel Miller, Esq., Patent Attorney, Joel Miller Law

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Wideband Radar Systems Characterization,
Measurement and Analysis



by Alan Wolke, RF Application Engineer,
Tektronix, Inc.

Massive MIMO Technology Insights and
Challenges



by Brian Kane, Senior Application Engineer,
Keysight Technologies

Distributed Wireless BTS's - Introduction and
Evolution



by Marion Veteska, Base Station Digital/Frame
SAE, Nokia

5G Overview: Hype and Reality



By Mike Garyantes, Senior System Engineer,
Nokia



Kirit Dixit, Exhibition Chair, closed the 31st
Annual MTT/AP Symposium and Mini-Show

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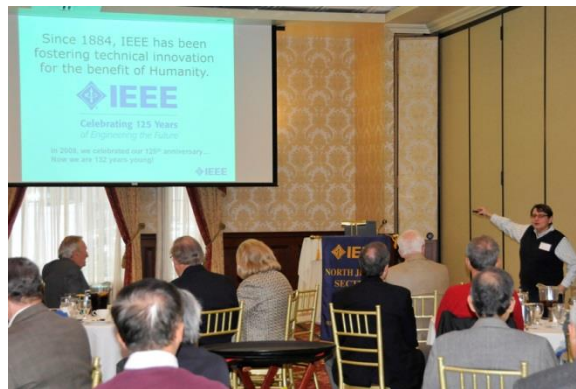


Adriaan van Wijngaarden, Section Chair, congratulates Kirit Dixit, on a successful 31st Annual MTT/AP Symposium and Mini-Show



George Kannell, Kirit Dixit, Adriaan van Wijngaarden, Ken Oexle, and Har Dayal

Life Grade Affinity Group joint with the PES and IAS Chapters Luncheon met on Thursday, October, 27th, at the Hanover Manor, East Hanover, NJ.



Dr. Mary Ann Hellrigel, of the IEEE History Center, speaks on since 1884, the IEEE has been fostering technical innovation for the benefit of Humanity and on the recent Section's Weston Meters -1887-1893 Milestone.



The above were elected to lead the Section's Life member Group. L-R: Michael Miller, Secretary, Ken Oexle, President, Fred Chichester, Vice President, and John Dalton, Treasurer.



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Virginia and Carl Sulzberger were recognized for their many contributions to the IEEE and the professions. She was recently made a member of the National Academy of Engineering for leadership and development of electric power system reliability standards. Carl served as the Associate Editor for History for the bimonthly IEEE Power and Energy Society's Power & Energy Magazine from 2002 until 2016. He also served as the IEEE Milestone Administrator.

The following are photos of the various tables.



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Section Holiday Workshop

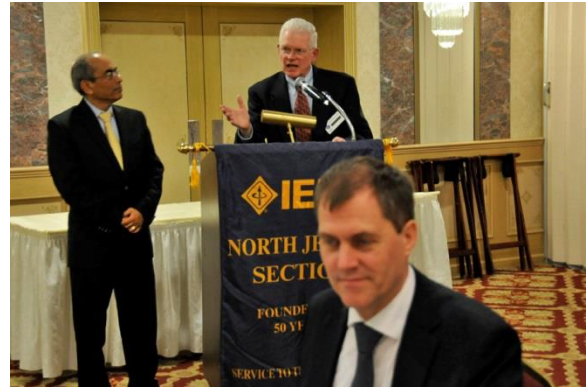
The Holiday Workshop was held on Tuesday, December 13th at the Hanover Manor



Adriaan J. van Wijngaarden, 2015-2016 Chair, is congratulated by the Kaylan Mondel, the incoming Chair for all of Adriaan's dedicated leadership of the Section over the past two years.



Adriaan J. van Wijngaarden, 2015-2016 Chair, is congratulated by the Durga Misar, Past Section and Southern Area Chair also for all of Adriaan's dedicated leadership of the Section over the past two years.



Howard Leach, Section Historian, congratulates Adriaan as Chair on the work that has been accomplished by Secretary Kai T. Chen in scanning, clean up, and digitization of the archival hardcopy newsletters from 1962-2001. This is a tremendous accomplishment in the preservation of the Section's history which has been outstanding for many years.

When the subject was brought up in the past to have the old newsletters scanned say by Staples at 50 cents per page there was always a suggestion to have them scanned searchable. However, no one had the equipment or time until Kai took on the job.

Kai has indicated that the files have been through Optical Character Recognition (OCR) so the files can be keyword scanned.

He had a challenging effort with the 1974-1976 newsletters which were printed in tabloid form so he was unable to use his letter-legal scanner. However, he was able to locate and use a large format scanner. He stated that most will not notice the readability of these 1974-76 newsletters as one can zoom in and out for individual readability.

This was a very large under taking as each newsletter could be 10 to 20 pages long with up to ten issues per year. As he scanned four decades, that could be about 4,000 pages

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scanned. The scanned newsletters were uploaded to the North Jersey Section's Archival site provided by the History Center at:

http://ethw.org/IEEE_North_Jersey_Section_History

Not all of the uploaded Newsletters have been linked into the Newsletter yearly lists. Howard will be following up to see that they are all link into their proper year.