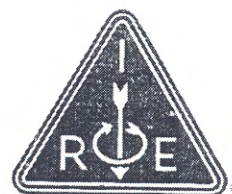


Baltimore Section IEEE Centennial Celebration

1904 - 2004



2004 Baltimore Section IEEE

Executive Officers

Chair
Jeffrey A. Friedhoffer

Vice Chair
Brian Sequeira

Secretary
Boris Gramatikov

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John Dentler

Membership Development
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Awards and Recognition
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Student Activities
Neville Jacobs

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Professional Activities Co-Chairs
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Carole Carey

Audits and Bylaws
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EMB Chair
David Sherman

IAS Chair
Mark Welsko

PES Chair
Eric Henlon

Reliability Chair
Walt Willing

GOLD
Wole Akpose

Baltimore Section IEEE Centennial Celebration

February 28, 2004

6:00 p.m.	Cocktails and Social
7:00 p.m.	Welcome Recognition of Distinguished Guests Dr. Jeffrey Friedhoffer 2004 Baltimore Section Chairman Invocation Mr. Gordon Gaertner 1991-93 Baltimore Section Chairman Dinner Served
8:00 p.m.	Delegate Kumar P. Barve Maryland House of Delegates Majority Leader
8:15 p.m.	100 Years of Electrical Engineering in the Baltimore Section Dr. Merrill Skolnik Fellow IEEE
8:45 p.m.	The Honorable Aris Melissaratos Secretary, Maryland Department of Business and Economic Development
9:00 p.m.	Presentation of Centennial Banner Dr. Moshe Kam Director and Chair, IEEE Region 2 Close

Distinguished Speakers

Delegate Kumar P. Barve

First elected in 1990, and re-elected three times, Delegate Kumar P. Barve, is the Majority Leader in Maryland's state legislature and was chair of the Science & Technology Sub-Committee of the House Committee on Economic Matters. He is the longest-serving elected official of Indian origin. He represents a district with a population of 110,000 in Montgomery County, Maryland. Mr. Barve is the CFO of Environmental Management Services, a company that cleans up toxic waste sites. He has received the Legislator of the Year Award from the Montgomery County Medical Society three times. He received the Biotechnology Leadership Award from the University of Maryland Biotechnology Institute in 2004. Mr. Barve is a graduate of Georgetown University (BS Accounting 1980).

Dr. Merrill Skolnik

Dr. Skolnik, a native of Baltimore, served as Superintendent of the Radar Division at the Naval Research Laboratory, a Senior Executive Service position, from 1965 to 1996, where he received the Navy Distinguished Civilian Service Award. Before that he was with the Institute for Defense Analyses, the Research Division of Electronic Communications Inc., MIT Lincoln Laboratory, Sylvania Boston Engineering Laboratory, and the

Johns Hopkins University Radiation Laboratory.

He is a Fellow of the IEEE, former chairman of the IEEE Radar Systems Panel, former editor of the *Proceedings of the IEEE*, received the IEEE Harry Diamond Award, the IEEE Centennial Medal, and was the first recipient (in 2000) of the IEEE Dennis J. Picard Medal for Radar Technologies and Applications. Dr. Skolnik is the author of *Introduction to Radar Systems* and editor of the *Radar Handbook*, wrote the article on radar for the *Encyclopaedia Britannica*, and was the editor of *Radar Applications*. In 1986 he was elected to the National Academy of Engineering.

Dr. Skolnik received his B.E, M.S.E, and Dr. Eng. degrees from the Johns Hopkins University as well as the Distinguished Alumni Award, and was a member of the Johns Hopkins Society of Scholars.

The Honorable Aris Melissaratos

Governor Robert L. Ehrlich, Jr. named Aris Melissaratos to the position of Secretary of the Maryland Department of Business and Economic Development (DBED) in January 2003. As Secretary, Mr. Melissaratos directs the work of DBED in its mission to stimulate and strengthen Maryland's economy, and promote Maryland as a prime location for tourism, film production and advancement of the arts. His priorities include technology, manufacturing, and minority business development.

Mr. Melissaratos is a former Westinghouse Electronics Systems Executive. For 32 years, he held a variety of positions at Westinghouse, the last of which was Vice President of Science and Technology, and Chief Technology Officer at the corporate headquarters in Pittsburgh. He was the Vice President and General Manager of the Design Engineering and Manufacturing Operations Divisions, with a total of 16,000 employees and \$3.2 billion in annual revenues. Mr. Melissaratos is a founding co-chair of the Greater Baltimore Technology Council, former Vice-President of the Maryland Chamber of Commerce and former Chair of the Maryland Manufacturing Association. He is a member of the National Advisory Council of the Whiting School of Engineering at the Johns Hopkins University, the Board of Directors of the Technology Council of Maryland, and the Emerging Technology Centers, and served on the Board of Visitors of the University of Maryland.

Mr. Melissaratos holds a BSEE from the Johns Hopkins University, and MS in Engineering Management from George Washington University. In addition, he has completed the Harvard Business School Program for Management Development (PMD-40) and the course work for a Doctorate (A.B.D.) in International Politics at the Catholic University of America.

Dr. Moshe Kam

Dr. Moshe Kam is the IEEE Region 2 Director and is Professor and Director, Data Fusion Laboratory at Drexel University's Electrical and Computer Engineering Department.

The Data Fusion Laboratory, which he founded in 1989, is devoted to mobile robots and multi-agent sensor fusion.

Dr. Kam has served the IEEE as the Philadelphia Section Chair, 1998; Chair of the Philadelphia Section Circuits and Systems/Control Systems Chapter; Chair of the Philadelphia Section Communications/Information Theory Chapter; Associate Editor of the IEEE Transactions on Systems, Man and Cybernetics; GOLD Program Representative, 1999-2000; and has chaired several IEEE conferences.

Dr. Kam received the IEEE Third Millennium Medal, 2000; the Philadelphia Section Past Chair Award, 1999; and Chapter of the Year Award, 1994. He was the recipient of the National Science Foundation Presidential Young Investigator Award in 1990, the C. Holmes MacDonald Outstanding Young Electrical Engineering Educator Award in 1991, the Drexel University Research Award in 1998, and the Distinguished Professor Award in 2000. Dr. Kam received degrees from Tel Aviv University (BSEE, 1977) and Drexel University (MS 1985, Ph.D. 1987).

Elena Schreiber
Pittsburgh Section

Amarjeet Basra
Northern Virginia Section

Sharon Basra

Ed Simoncek
Susquehanna Section

Howard Needham
Washington D.C. Section

Jalal Jalali
Youngstown Section

Farin Jalali

J F Burns
Southern New Jersey Section

Jorome T. Gibbon
Region 2 Area Chair - South

Robert A Conn
Region 2 Treasurer

A B Shafeei
Region 2 Sections Congress Rep

Dan Repperger
Region 2 Area Chair - Ohio

Richard D. Klafter
Region 2 Continuing & Professional
Education

Joseph A. Kalasky
Region 2 Industry Relations Coordinator

William P. Walsh, Jr.
Region 2 Membership Development

Ralph M. Ford
Region 2 Conference Coordinator

Thomas A. Chmielewski, Jr
Region 2 Employment Activities
Coordinator

Shreekanth Mandayam
Region 2 Student Activities

Ram Achuthanandam,
Drexel University

Bob Tuelevski
Region 2 Student Activities

Parvis Famouri
Region 2 PACE

Melvin Hotz
Baltimore Section Chair 1976-77
Maryland Board of Professional
Engineers Section Representative

Eileen Hotz

Gordon Gaertner
Baltimore Section Chair 1991-93
PES Chapter Chair 1982-83

Louise Gaertner

Neville Jacobs,
Reliability Chair 1987-96
Baltimore Section Student Activities

Lois Jacobs

Joseph Pollitt
Baltimore Section Chair 1981-82
Baltimore Section Chair 1985-86
Baltimore Section Audits / Bylaws

Boris Gramatikov
Baltimore Section Secretary 2004
EMB Chapter Chair 2000-02

**Centennial Celebration Banquet
Attendees**

Moshe Kam
Region 2 Director

Aris Melissaratos
Secretary, Maryland Department of
Business and Economic Development

Lewis Terman
Director IEEE Division I

James Armitage
VP Engineering Northrup Grumman
Electronic Systems Division

James T. Carlo
President IEEE Standards Activities

Jeffrey Friedhoffer,
Baltimore Section Chair 2003-04
Communications Chair 2000-02

Carol Friedhoffer

Merrill Skolnik
Fellow IEEE

Judith Skolnik

Kumar Barve
Maryland House of Delegates Majority
Leader

Maureen Quinn

Thomas A. Tullia
Region 2 Vice Chair & Director Elect

Marc T. Apter
Past Region 2 Director

Thomas Fagan
Chair RADAR '05
Philadelphia Section Chair 1978-79

John Dentler
Baltimore Section Chair 1998
Annapolis Subsection Chair 1992-94
Region 2 Secretary 2004

Katie Dentler

Leo Young
Fellow IEEE
President IEEE 1980

Jo-Ellen Turner

Carole Carey
Baltimore Section Chair 2001
EMB Chair 1995-97, Region 2 WIE 2004

Daniel Toland
Manager IEEE Regional Activities
Administration

Russell T. Harrison
IEEE-USA Legislative Representative

Fredric R Nadeau
Cincinnati Section

Matthew S Barratt
Cleveland Section

Ted Woo
Philadelphia Section

Paul E Kladitis
Dayton Section

Kimberley Kladitis

Douglas F. Tipton, Jr.
Delaware Bay Section
Region 2 Area Chair - Maryland

Yvonne Tipton

Tony Silva
Lehigh Valley Section

Elena Schreiber
Pittsburgh Section

Amarjeet Basra
Northern Virginia Section

Sharon Basra

Ed Simoncek
Susquehanna Section

Howard Needham
Washington D.C. Section

Jalal Jalali
Youngstown Section

Farin Jalali

J F Burns
Southern New Jersey Section

Jorome T. Gibbon
Region 2 Area Chair - South

Robert A Conn
Region 2 Treasurer

A B Shafeei
Region 2 Sections Congress Rep

Dan Repperger
Region 2 Area Chair - Ohio

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Brian Sequeira
Baltimore Section Vice Chair 2004
AP/MTT Chair 1996-98

Jeanne Sequeira

Ralph Bruce
Baltimore Section Chair 2000
Annapolis Subsection Chair 1991-92

Carla Bruce

Christopher Nemarich
Baltimore Section Chair 1994-95
Annapolis Subsection Chair 1985-86
Baltimore Section Program Dir 2004

Mary Nemarich

Ronald Aloysius
Baltimore Section Newsletter 2004

Peter Andrews
Baltimore Section

Natalie C Yopconka
Past IEEE Computer Society Standards
and Technical Committees

Les Sonnenmark
Annapolis Subsection Chair 1987-88

Kenneth Sebra
Baltimore Section Chair 1983-85

Charlotte Sebra

Gilbert Garduno
Baltimore Section Chair 1988-89
Annapolis Subsection Chair 1979-80

June Garduno

Robert Berkovits
EMC Chapter Chair 2002-04

Joan Miller

Steven Stitzer
Fellow IEEE
AP /MTT Chapter Chair 1980-81

Mohan Ray
Baltimore Section

Domenic Georgantas
Baltimore Section GOLD
JHU Student Branch Chair 1997

Ekaterina Georgantas

James Thurber
PES Chapter Chair 1987-9

Kathy Thurber

Henry Diener
Baltimore Section

Patricia Diener

Zechen Chang
Baltimore Section
Kevin Cheng
Baltimore Section

Harold (Joe) O'Banion
Baltimore Section EMC Chapter

Debra O'Banion

Edward Niehenke
Fellow IEEE
AP /MTT Chair 1979-80 MTT-S

Betty Neihenke

Ted Nelson
Baltimore Section AP /MTT MTT-S

Andrew Barnes
JHU Student Branch Treasurer

James Ballew
JHU Student Branch

Phil Nigon
JHU Student Branch President

Bari Braunstein
JHU Student Branch

John Henson
JHU Student Branch Secretary

Michael Curtis
JHU Student Branch

Max Riess
JHU Student Branch

Ravi Mody
JHU Student Branch



100 Years

A brief history of the Baltimore Section of the Institute of Electrical and Electronic Engineers (IEEE)

The Baltimore Section IEEE of today traces its roots to both the Baltimore Section (referred to later as the Maryland Section) of the American Institute of Electrical Engineers (AIEE) and the Baltimore Section of the Institute of Radio Engineers (IRE). The AIEE was founded on May 13, 1884 in New York and quickly gained recognition as a representative for American electrical engineers. The IRE was formed from two largely local organizations, the 'Society of Wireless and Telegraph Engineers' and the 'Wireless Institute' in 1912. The IEEE was formed in 1962 with the merger of two societies. [1]

Baltimore Section AIEE

The AIEE Baltimore Section began its existence on December 16, 1904. Research into the early years of the Baltimore Section AIEE is ongoing; however, what is known about the Section is presented here.

William Bennett Kouwenhoven was chairman of the Section from at least 1924 until 1929. The Secretary was T. Greer. W. B. Kouwenhoven was a pioneer in understanding electricity and the heart, was born on 13 January 1886 in Brooklyn, NY. His greatest achievement was the development of the closed-chest electric cardiac defibrillator, which was used for the first time in the 1950s to save a human life,

and has since been used to save thousands more. Dean of Johns Hopkins Electrical Engineering School from 1938 to 1954, Kouwenhoven was an IEEE Fellow, recipient of the Edison Medal in 1961 and the Power Life Award. He was a prolific author of technical publications. He was also recipient of the Albert Lasker Medical Research Award, one of the medical profession's highest honors. [2]

Some of the Section meetings held during Kouwenhoven's tenure as Chair were detailed in the AIEE Journal. Some of the meetings and descriptions are reprinted here.

16 Nov 1923: Engineers' Club, Subject: "Problems of Electrochemistry and Electrometallurgy" Speaker: Mr. WE. W. Rouse, Attendance: 60

17 Nov 1923: Inspection trip to the Baltimore Copper Works. Guides were appointed by the company to point out to the members, who had been divided into groups of ten, the interesting features.

14 Dec 1923: Engineer's Club: Subject: "The Engineer". Speaker: Dr. S. W. Stratton, President of MIT. This meeting was held jointly with the local branch of ASME and the alumni of MIT Association of Baltimore. Attendance: 90.

18 Jan 1924: John's Hopkins University (that is how it's spelled in the AIEE Journal) Subj: "Vacuum Tubes" Speaker: Dr. A.W. Hull of the General Electric Company. Refreshments were served. Attendance: 150.

1 March 1924: Club House, Holtwood, PA. Joint with ASME. Papers: "The

Holtwood Power Development" Mr N. B. Higgins and R. L. Thomas, of the Pennsylvania Water and Power Co. Attendance: 150

15 February 1924: Outstanding Developments in Radio, by Professor L. G. Hazeltine. The speaker gave a very interesting talk on radio receiving circuits and exhibited slides and several different types of receiving sets. Refreshments were served. Attendance: 185

21 March 1924: Interconnection and Superpower, by Stevens T. Hayes. The talk proved to be very interesting and he illustrated many points with slides. Refreshments were served, Attendance: 60

17 October 1924: Automatic Sub-Stations, by Adrian Hughes, United R. R. & Electric Co., and C. A. Butcher, Westinghouse Elec. & Mfg. Co. Refreshments were served. Attendance 87

18 October 1924: Inspection Trip to the new Gay Street Sub-Station of the United Railway Co. Luncheon was served. Attendance 57

1 November 1924: Weir Single-Stage Centrifugal Boiler-feed Pump, by J. B. Lincoln and Endurance Properties of Metals, by Dr. D. J. McAdam, Jr. All-day meeting held jointly with ASME at the U. S. Naval Academy in Annapolis. In the afternoon the visitors attended the Navy-Penn State Football Game. Attendance 35

21 November 1924: Development of Distribution System, By R. B. Mateer. Refreshments were served. Attendance 47

12 December 1924: Electricity in the Home, by Mrs. Elizabeth J. McDonald, Editor of Modern Priscilla, and M. O. Ryley, General Electric Company. Motion pictures and slides were shown. Supper was served. Attendance: 150

15 January 1925: Railways Transportation, by W. B. Potter, General Electric Co. The speaker, with the aid of pictures, discussed the various engineering features involved in modern transportation, showing the comparison of steam and electric propulsion as applied. The modern gasoline engine, the diesel and semi-fuel oil engines were also discussed. A dinner preceded the meeting. Attendance: 96

20 February 1925: The Klydonograph, by Dr. J. F. Peters, Westinghouse Electric & Manufacturing Co. One of the points brought out was the ability of this instrument to measure the velocity of electricity. A dinner preceded the meeting. Attendance: 104

20 March 1925: Design of Power Transformers, by H. O. Stevens, General Electric Company. Refreshments were served. Attendance: 59

26 October 1928: Welding of Steel Bridges and Building, by F. P. Mcibben, Consulting Engr., Illustrated. Baltimore Section, AIEE invited to meet with ASCE Section and the Engineers' Club of Baltimore. Attendance: 50

9 November 1928: Inspection Trip to Steel Plant, Sparrows Point. Joint with ASME and the Baltimore Engineers' Club. Attendance: 250

16 November 1928: High Tension Insulators, by D. H. Rowland, Research Engr., Locke Insulator Corp. Inspection trip to Plant of Locke Insulator Corp.

was held prior to the meeting.
Refreshments served. Attendance: 150

10 January 1929: The Development of
Lighter-Than-Air Ships, by W. W.
Pagon. Attendance: 95

1 March 1929: Diesel Electric Drive, by
H. C. Coleman, Mgr., Marine Engr.,
Westinghouse Elec. & Mfg. Co.
Attendance: 95

15 March 1929: Electrical Eyes and
Their Use in Communications, by John
Mills, Director of Publications, Bell
Telephone Laboratories, ASME, IES and
Engineers' Club invited to participate.
Attendance: 205

Sometime in the 1930's or 1940's, the
AIEE enlarged the area covered by the
Baltimore Section and it became known
as the Maryland Section AIEE. The
AIEE then grouped Sections into
Districts. The Maryland Section was part
of District 2. The area covered by the
AIEE District 2 was similar to the
present IEEE Region 2 of today.

The last two Baltimore AIEE Section
Chairmen were J.T. Wilner of WBAL
(1961-62) and S. Taborsky in 1962-63.
In that year, the Middle Eastern District
Number 2 of the AIEE approved the
formation of the Annapolis Subsection
by petition. The Subsection officially
began on December 1, 1962. At that
time, the Annapolis Subsection
encompassed Anne Arundel County.
The first and last Subsection Chair was
F.G. Logan and the Secretary was
Wendell C. Phillips.

Baltimore Section IRE

The Baltimore Section of the IRE was
formed in 1939 and became an official

Section in January 1940. The
Washington D.C. Section relinquished
part of its territory so that the Baltimore
Section could be formed. The founders
of the Baltimore Section IRE were C.A.
Ellert, Ferdinand Hamburger Jr (JHU)
and Alexander Whitney (Westinghouse).
Ferdinand Hamburger later became the
IRE Region 3 Director. His photograph
and biography appear on a subsequent
page. The first meetings were held in the
fall of 1939. Excerpts from the IRE
PROCEEDINGS describing the first
meetings appear on the next page.

Effective January 1, 1946, the IRE
assigned a larger territory around each
city section so that all IRE members
would be served by a section. The
eastern half of Maryland including the
Eastern Shore as well as Cecil and
Calvert Counties were assigned to the
Baltimore Section. Within a few years,
the IRE formed Regions and the
Baltimore Section was assigned to
Region 3. Region 3 stretched from
Philadelphia, PA to Miami, FL. The map
of the new 1946 Baltimore Section is
presented on a subsequent page. IRE
Baltimore Section membership figures
are given below:

Year	Membership Total
1939	80
1940	82
1944	258
1945	280
1946	312
1947	345
1948	400
1949	417
1957	1,198
1958	1,222
1959	1,367
1960	1,567
1961	1,846
1962	1,955

Baltimore

The first meeting of the newly established Baltimore Section resulted in the election of C. A. Ellert as chairman, Ferdinand Hamburger, Jr., of Johns Hopkins University as vice chairman, and Alexander Whitney of the Westinghouse Electric and Manufacturing Company as secretary-treasurer.

Short talks on the Institute and its activities were given by President Heising and Secretary Westman.

A resolution was adopted extending thanks to the Washington Section for relinquishing part of its territory to permit the establishment of a Baltimore Section.

For the past three years, an organization known as the Institute of Radio Conferees has operated in Baltimore and it was agreed that the technical-papers program of that organization would be adopted by the Baltimore Section for its 1939-1940 activities and that all members of the Institute of Radio Conferees would be retained on the mailing list of the Baltimore Section for a period of two years.

President Heising then presented his paper on "Radio Extension Links to the Telephone System" which has been summarized previously in the PROCEEDINGS.

November 10, 1939, C. A. Ellert, chairman, presiding.

Sections

Proceedings of the I.R.E.

February, 1940

Baltimore

"Recent Advances in Frequency Modulation" was the subject of a paper by E. H. Armstrong, professor of electrical engineering at Columbia University.

A brief history and the theory of amplitude and frequency modulation introduced the subject. It was pointed out that most static eliminators are designed on the theory that the interference was different in nature from the signal for amplitude modulation. Studies have shown static to consist mainly of amplitude-modulated components with a small percentage of frequency modulation.

The frequency-modulated-wave system developed by Professor Armstrong utilizes receivers that are relatively insensitive to the amplitude-modulated components of the static.

An outline of the operation of the system shows that distortion is not dependent

on linearity of tube characteristics but on the linearity of the transformers used with the tubes.

Further advantages accrue from maintaining constant the voltages on the transmitting tubes during full modulation. Views of typical equipment demonstrated a considerable saving in space for a transmitter covering the same primary service area as compared with amplitude-modulated-wave equipment. The difference in behavior of the amplitude- and the frequency-modulated-wave systems during a thunder storm was presented by means of recordings.

December 15, 1939, C. A. Ellert, chairman, presiding.

Baltimore Section IRE Chairs were as follows:

C. A. Ellert 1939-40
F. Hamburger Jr 1940-41
V. D. Hauck Jr 1941-42
G. J. Gross 1942-44
W. L. Webb 1944-45
R. N. Harmon 1945-46
H. L. Spencer 1946-47
F. W. Fischer 1947-48
G. P. Houston 1948-49
E. W. Chapin 1949-50
J. W. Hammond 1950-51
J. V. Lebacqz 1951-52
D. G. Little 1952
C. E. McClellan 1952-53
G. R. White 1953-54
C. D. Pierson Jr 1954-55
C. F. Miller 1955-56
M. I. Jacob 1956-57
M. R. Briggs 1957-58
J. T. Wilner 1961-62
S. Taborsky 1962-63

In 1959, the IRE stopped publishing the names and news from Sections in the PROCEEDINGS to allow for expanded technical paper coverage (as voted on by the membership). Therefore, we were unable to locate the names of the 1959 and 1960 IRE Baltimore Section Chairs.

The AIEE and IRE merge to form the IEEE

The structural development and general activities of the IRE were similar to those of the AIEE. Many of the original members of the IRE were also members of the AIEE and both organizations continued to have members in common until the merger in 1963.

In 1961, the leadership of both the IRE and the AIEE resolved to seek an end to their differences through consolidation.

The next year, a merger plan was formulated and approved. It became effective on 1 January 1963. The Baltimore Section IEEE was formed in January 1963. [1] The new Baltimore Section had two Subsections, Annapolis and the Eastern Shore. The Baltimore Section encompassed the Baltimore metropolitan area and surrounding counties of Howard, Baltimore, Anne Arundel, Carroll, and the entire Eastern Shore of Maryland. The Section was assigned to IEEE Region 2.

The Eastern Shore Subsection became a separate Section in 1972. It was dissolved in 1999 and its members were again assigned to the Baltimore Section. The Subsection was not reformed.

Today, the Baltimore Section IEEE has more than 4,600 members in Baltimore City and the counties of Anne Arundel, Carroll, Harford, Howard, Calvert (the northern portion), Kent, Queen Anne's, Caroline, Dorchester, Wicomico, Somerset and Worcester.

796 different companies, universities, government and other organizations employ Baltimore Section members.

The Baltimore Section IEEE has 10 active Technical Chapters. These are:

- Aerospace and Electronic Systems
- Antennas Propagation / Microwave Theory
- Communications
- Computer
- Electromagnetic Compatibility
- Electron Devices / Solid State
- Engineering in Medicine and Biology
- Industry Applications
- Power Engineering
- Reliability

Baltimore Section Technical Society Chapters have won numerous awards over the years (not detailed here).

Baltimore Section Chairs

S Taborsky 1962-63
 Carroll M Barrack 1965-66
 Keats A Pullen 1966-67
 James G Holman 1967-68
 Lewis G Larsen 1968-69
 Alfred R Bolz 1969-70
 Albert J Mccubbin 1970-71
 Richard J Allen 1971-72
 Joseph K Ruth 1972-73
 William C Farrell 1973-74
 John L Markwalter 1974-75
 John C Handy 1975-76
 Melvin Hotz 1976-77
 Bruce Masland 1977-78
 F Edward Baker 1978-79
 Joseph M Pollitt 1981-82
 Joseph E Hunter Jr 1982-83
 K H Sebra 1983-85
 Joseph M Pollitt 1985-86
 Peter D Hrycak 1986-87
 W C Von Nordeck 1987-88
 Gilbert Garduno 1988-89
 Joseph C Goldbeck 1989-90
 Wayland Neil Hall 1990-91
 Gordon H Gaertner 1991-93
 Frank J Velez Jr 1993-94
 Christopher P Nemarich 1994-95
 Kate B Carus 1996
 Paul J Frey 1997
 John Dentler 1998
 William B Dixon 1999
 Ralph W Bruce 2000
 Carole C Carey 2001
 Virgilio P Arafiles 2002
 Jeffrey A Friedhoffer 2003-04

Annapolis Subsection Chairs

F.G. Logan 1962-63
Wendell C. Phillips, Jr 1963-64
Chancy F Whitney 1965-66
Irving Lindow 1966-67
Kurt Hollander 1967-68
Albert A Smith 1968-69
Lyman W Griswold 1969-70
John L Markwalter 1970-71
M S Hastings 1971-72
Charles M Weant 1972-73
M Bowers 1974-75
F Edawrd Baker 1975-76
Jake H Halfad 1976-77
Ted Lesster 1977-78
Gilbert Garduno 1979-80
William R Mcwhirter Jr 1980-81
Tian S Lim 1981-82
Henry K Whitesel 1983-84
David B Boswell 1984-85
Christopher P Nemarich 1985-86
Norm Idelson 1986-87
Les Sonnenmark 1987-88
Chester R Petry 1989-90
Christopher P Nemarich 1990-91
Ralph W Bruce 1991-92
John Dentler 1992-94
John M Young 1994-95
Thomas A Tullia 1996
David C Boyd 1997-2004

Reliability Chapter Chairs

Formed August 22, 1963
Jonathan D Lessels 1979-80
Bernhard A Bang 1980-81
Thomas E Reid 1984-85
Wayland Neil Hall 1985-87
Neville E Jacobs 1987-96
Walter E Willing 1997-2004

Aerospace and Electronic Systems Chapter Chairs

Formed (second time) July 8, 1991
A E Dietz Jr 1979-80
Richard J Wiegand 1980-81
Michael Feil 1982-84
T P Henry 1991-92
James D Hendry 1992-93
William B Dixon 1993-95
George K Ridley 1994-95
Mark Brown 1996
Brian K Bare 1997
George K Ridley 1998
Mark Brown 2000-01
Dewayne H Bebout 2002
William B Dixon 2003-04

Computer Chapter Chairs

Formed February 1, 1955
D C Friedmann 1979-80
Andrew M Veronis 1980-83
Joseph E Hunter Jr 1983-84
James E Coolahan Jr 1984-86
Allan B Anderson 1986-91
John H Curley 1991-92
Allan B Anderson 1992-95
Perry Shelton 1996-97
Garth R Mackenzie 2001-04

Engineering in Medicine and Biology Chapter Chairs

Formed September 24, 1986
Joshua E Tsitlik 1986-88
Russell C Eberhart 1988-89
W R Webber 1989-91
A A Wolf 1994-95
Carole C Carey 1995-97
Glenn B Bell 1998-99
Boris I Gramatikov 2000-02
David Sherman 2003-04

Communications Chapter Chairs

Formed November 1, 1967
James R Ransom 1983-84
Olaf N Rask 1984-86
Gerard J Quenneville 1987-88
Robert E Weiblen 1988-97
Mark D Todd 1997-98
Jeffrey A Friedhoffer 2000-02
Thad B Welch 2003-04

Power Engineering Chapter Chairs

Formed October 29, 1963
Joseph M Pollitt 1978-79
Joseph E Hunter Jr 1979-80
W C Von Nordeck 1980-81
Gordon H Gaertner 1982-83
Bayard S Koch 1983-84
William A Keagle Jr 1985-86
Rudolf R Walter 1986-87
Donald W Rumer 1987-88
Harry L Salvo Jr 1988
Guive Nabet 1988-89
Andrew J Bonthron 1989-90
James A Thurber 1990-91
John N Borkoski 1991-92
Paul J Frey 1992-93
A C Burton 1993-95
David A Rowse 1996
Lisa E Potochney 1997
Joseph G Bunch 1998
Amy R Hagemann 1999
Stephen J Woerner 2000
Robert D Biagiotti 2001
Kirk A Rae 2002
James F Ryan Jr 2003
Eric Henlon 2004

Industry Applications Chairs

Formed December 16, 1964
Larry S Shannahan 1979-80
Joseph C Goldbeck 1984-85
Allen C Howe II 1985-86
Donald L Helmey 1986-88
Kate B Carus 1988-90

Diane C Ewing 1990-91
Arthur H Beasman 1991-92
Thomas J Patton 1992-93
Carl E Canatella 1993-95
Edward W Mitchell 1996
Annette Allender 1996
Edward W Mitchell 1997
Wesson H Miller Jr 1998-99
C Scott Gordon 2000-01
Robert A Banas 2003
Mark J Welsko 2003-04

Electromagnetic Compatibility Chapter Chairs

Formed (second time) Nov 1, 1990
Hugh C Maddocks 1979-80
William E Tate 1979-80
V Mcconnell 1980-92
Thomas R Watt 1992-96
Theodore L Harwood II 1995
Frederick B Kirby 1999
John V Anderson 2000-01
Robert J Berkovits 2002-04

Antennas Propagation

Microwave Theory Chapter Chairs

Formed (as an IRE Professional Group)
November 9, 1954
Lawrence R Whicker 1970-71
B D Geller 1977-78
E Niehenke 1979-80
Steven N Stitzer 1980-81
Dale E Dawson 1981-82
Daniel C Buck 1982-83
Peter D Hrycak 1983-85
Suman D Patel 1985-86
John W Gipprich 1986-87
David Sall 1987-88
D Keith Breakfield 1989-90
Peter A Stenger 1991
Steven L Anthonisen 1991-92
Jon A Moellers 1993-95
Hermann B Sequeira 1996-98
Howard Fudem 1999-2000
Hyo Kun Hahn 2001-02
Brad L Mccarthy 2003
Thomas M Walsh 2003-04

**Electron Devices Solid State Chapter
Chairs**

Formed December 3, 1997

Arlene A Santos 1997

Paul A Potyraj 1998-99

Anna W Roesch 2000

David M Burnell 2001-04

**Education Chapter
Chairs**

Formed September 8, 1994

Dissolved December 31, 1999

Samuel J Biondo 1994-95

Suzanne E Keilson 1996-98

**Baltimore Section
IEEE Fellows**

John Adam

R Adams

John Allen

George Axelby

Quirino Balzano

David Barbe

Frank Brady

Emanuel Brancato

William Brody

Norman Caplan

J Cricchi

L Davisson

N De Claris

Wilfred Dean

James Degenford

Lawrence Dickens

Bharat Doshi

Richard Doughty

Michael Driscoll

Delores Etter

Lyle Feisel

Karl Gerlach

James Hall

J Hammer

Conrad Hoeppner

Harold Hughes

Robert Hunsperger

Frederick Jelinek

Arthur Jensen

Anthony Johnson

L U Kelling

G Kilgore

J Kopper

S Rao Kosaraju

R Lee

A Lind

R Longuemare

Gerald Masson

Curtis Menyuk

Grayson Merrill

R Moore

Peter Myers

E Niehenke

Chester Page

Benjamin Pontano

Jerry Prince

John Przybysz

Keats Pullen

R Raney

Thomas Rogers

Frederick Rogers

Aziel Rosenfeld

Wilson Rugh

Frank Rushing

Helmut Schrank

Zary Segall

R Silliman

William Skillman

H Smith

James Smith

G M Sommerman

James Spall

Steven Stitzer

G Stout

G Strull

P Sulzer

Russell Taylor

Nitish Thakor

G Trunk

Leslie Wall

Harry Wallace

Ronald Waynant

Bruno Weinschel

Leo Young

James Ziegler



Ferdinand Hamburger, Jr.

REGIONAL DIRECTOR, 1950-1951

Ferdinand Hamburger, Jr., Regional Director of the Central Atlantic Region, was born at Baltimore, Md., on July 5, 1904. He was graduated with the degree of Bachelor of Engineering in electrical engineering from The Johns Hopkins University in 1924. After participating in a program of dielectric research for several years, he earned the degree of Doctor of Engineering from that University in 1931. He was a Charles A. Coffin Fellow in 1930-1931.

Dr. Hamburger, who has been on the staff of the electrical engineering department of The Johns Hopkins University since 1931, was appointed professor of electrical engineering in 1947. He served as chief test engineer for Bendix Radio Division from 1942 to 1945 while on partial leave of absence from the University, as Consultant for the NDRC, Section 17-2, during 1944-1945, and as Consultant to the Research and Standards Section, Bureau of Ships, Navy Department during 1945-1946. He is Associate Director in charge of Engi-

neering of the Systems Research contract between The Johns Hopkins University and Special Devices Center, Office of Naval Research, at the present time.

Dr. Hamburger joined The Institute of Radio Engineers as an Associate Member in 1931, and became a Member in 1939 and was elevated to the grade of Senior Member in 1943. He was largely responsible for the formation of the Baltimore Section of the Institute in 1939 and for its reorganization in 1944.

He has served as Chairman of the Section in 1940-1941, and has been a member of its Executive and Meetings and Papers Committees since its inception. Dr. Hamburger has been the IRE representative at The Johns Hopkins University since 1941.

He is also a Fellow of the American Institute of Electrical Engineers, a member of the Societies of Sigma Xi and Tau Beta Pi, and a Director of The Engineers Club of Baltimore. Dr. Hamburger is the author of numerous technical papers.

SECTION TERRITORY ASSIGNMENT

Early in 1945, the Board of Directors adopted a new policy concerning Section territory in the United States. It was decided that instead of assigning a small territorial area around the city center of each section, the remaining unassigned territory of the United States would be assigned to sections. It was also planned to do the same with Canada.

The Sections' Committee met and drew up a suggested assignment. The assignment for the United States has been approved and is to take effect January 1, 1946. The proposed assignment for Canada has not yet been approved as the desires of the members and sections in that area have not been received.

The new method of assigning territory means that every member of the Institute in the United States becomes a member of some section. As such he will be on the membership list of his section and should receive notices of meetings.

The assignments were made on the basis of distance and travel habits so far as they were known to the committee. The proposed division was submitted to the Chairmen of all Sections with a request for comments. Several suggestions for changes were made and where there was some doubt about the

January, 1946

wisdom of the changes, polls were taken of the members residing in the areas in question. These areas have now been assigned in accordance with the majority vote received from such members. The attached map, which shows the outlines of the territories for the sections was drawn up and approved.

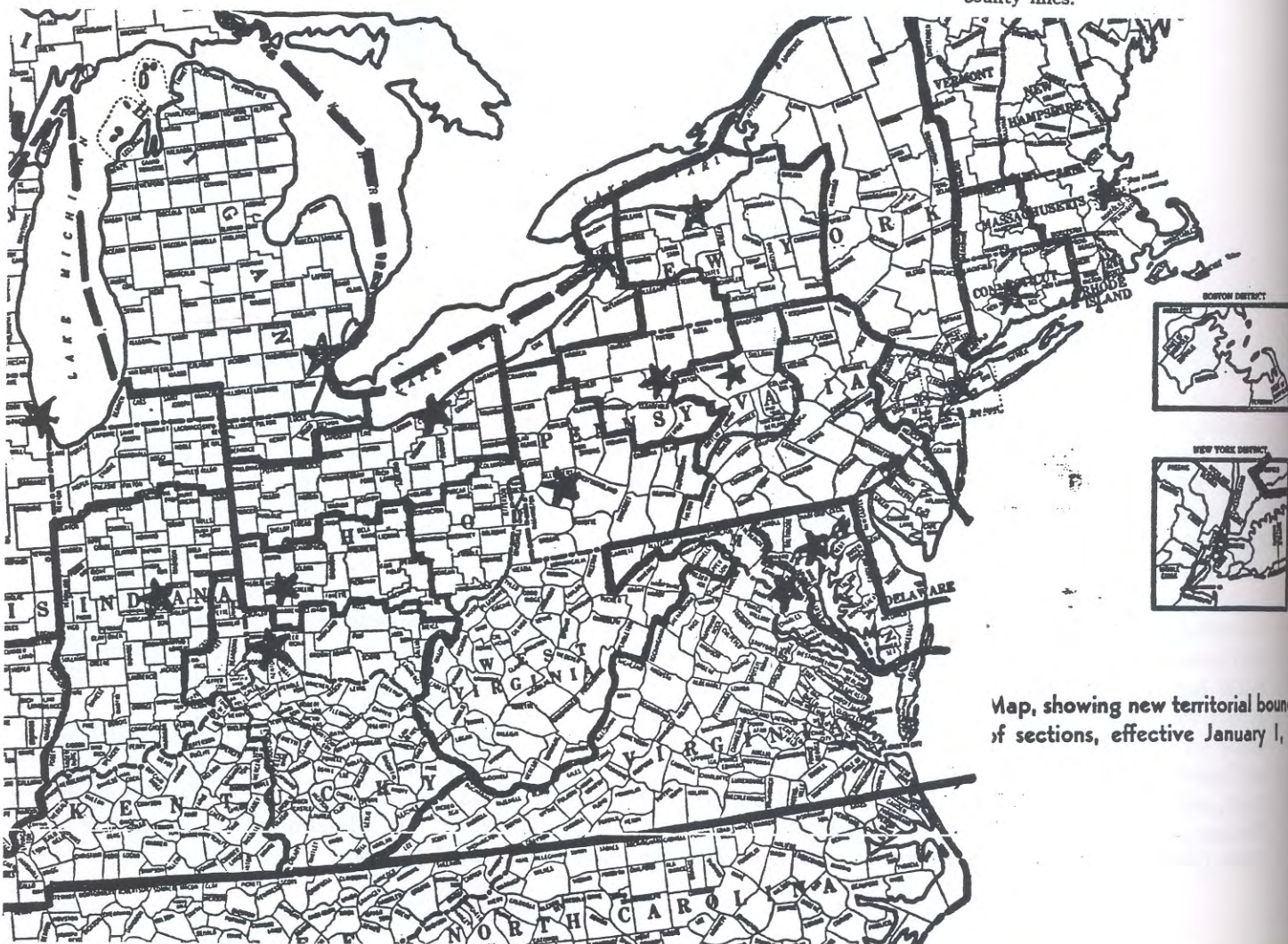
The assignment of all territory to sections will call for certain new operational policies upon the formation of new sections. Heretofore, the formation of most sections required only the assignment of unassigned area to the proposed new section. A few new sections have been formed which called for removing some area from an older section. Now all new sections will of necessity be carved out of present sections. However, the opportunity for the establishment of new sections will not be reduced at all. The practice followed in such establishment will be modified only to the extent of asking the new and old section officers to agree on their respective areas. If any difference in opinion exists, the Executive Committee will poll the members in any disputed area, or decide the matter upon whatever pertinent information is available.

Waves and Electrons

The assignment of all territory to sections is a prelude to a proposed new arrangement for naming members of the Board of Directors. An effort is being made to have more members on the Board from sections remote from New York and plans are being formulated which it is thought will accomplish this result. Such plans envisage grouping of sections into a few large areas called "Regions" and providing these regions with a co-ordinating council and representation on the Board. In the course of time, therefore, after the necessary constitutional changes have been made, a new type of territorial division will be superimposed upon the sectional division. It is planned that each region will be composed of a number of sections with their territories. The number of these regions, and their boundaries will be determined by the Board

of Directors. In the meantime, the establishment of the new section territories will have gone into effect for a period of time that is hoped will be sufficiently long to turn over the shortcomings that should be corrected.

It is suggested that all members refer to the map, determine how they are assigned, and register any objections before they have been carried so far as to involve serious complications in making any changes. Suggestions for changes should be addressed to the Institute Office along with reasons therefor. A member requesting a change should give the name of his county, smallest division made in area is county lines.



Map, showing new territorial boundaries of sections, effective January 1, 1946



AMERICAN INSTITUTE of ELECTRICAL ENGINEERS

SECTIONS COMMITTEE

Address Reply to H. C. Brem
Allis Chalmers Mfg. Co.
P. O. Box 512
Milwaukee 1, Wisconsin

December 28, 1962

TO THE OFFICERS OF THE MIDDLE EASTERN DISTRICT NO. 2
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
THE MARYLAND SECTION AND THE ANNAPOLIS SUBSECTION

The petition of the Annapolis Subsection of the Maryland Section has been approved and the effective date of organization is December 1, 1962. The new Annapolis Subsection officers are:

Mr. F. G. Logan, Chairman
1015 Norman Drive
Annapolis, Maryland

Mr. Wendell C. Phillips, Jr., Secretary
Rolling Ridge Farm
Harwood, Maryland

The Maryland county of Anne Arundel is assigned to the new Annapolis Subsection.

All Institute records of the Districts, Sections, Branches and Members should be changed accordingly.

Very truly yours,

H. C. Brem
H. C. Brem, Chairman
Sections Committee

HCB:rw

cc: Mr. B. R. Teare, Jr., N. S. Hibshman, Bradley Cozzens, J. J. Anderson, G. E. Herrmann, R. R. Krezdorn, C. E. Monty, J. J. O'Connor, E. W. Brewer, R. C. Mayer, Jr., W. W. Middleton, W. R. Ibach and W. E. Scholz

**Baltimore Section IEEE
Membership over the Years**

Year	Total Section Members
1963	2646
1964	2558
1965	2522
1966	2569
1967	2383
1968	2284
1969	2314
1970	2392
1971	2414
1972	2356
1973	2405
1974	2468
1975	2610
1976	2564
1977	2579
1978	2646
1979	2775
1980	2929
1981	3018
1982	3209
1983	3335
1984	3523
1985	3677
1986	3936
1987	4186
1988	4314
1989	4396
1990	4431
1991	4403
1992	4329
1993	4289
1994	4229
1995	4199
1996	4088
1997	4070
1998	4196
1999	4436
2000	4564
2002	4653
2003	4405

**Annapolis Subsection
Membership over the Years**

Year	Total Subsection Members
1963	460
1964	496
1965	509
1966	547
1967	549
1968	545
1969	582
1970	625
1971	647
1972	654
1973	686
1974	717
1975	799
1976	796
1977	815
1978	847
1979	885
1980	923
1981	963
1982	992
1983	989
1984	1062
1985	1080
1986	1147
1987	1220
1988	1206
1989	1229
1990	1223
1991	1204
1992	1182
1993	1142
1994	1122
1995	1113
1996	1087
1997	1117
1998	1148
1999	1312
2000	1348
2002	1324
2003	1253

**Eastern Shore Subsection
Membership over the Years**

Year	Total Subsection Members
1963	65
1964	64
1965	65
1966	60
1967	68
1968	59
1969	64
1970	69
1971	71

Information compiled by: Christopher
Nemarich, Baltimore Section IEEE
Program Director. Please direct any
corrections or additional information to
c.nemarich@ieee.org

References

- [1] IEEE Website
- [2] From "Profile", by Janet Weinrib, in
IEEE The Institute, Jan 1986

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Mary Ann Hoffman
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IEEE History Center

Kate Marks, Director
Kristin Qualls, Assistant Director
Tom Ballard, Librarian
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Linthicum, MD