

50th
ANNIVERSARY



THE INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

SPONSORED BY: NORTH CAROLINA COUNCIL

**HOSTED BY: CHARLOTTE SECTION AND
UNCC STUDENT BRANCH**

UNCC-CHARLOTTE, N.C.

APRIL 20, 1979

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I.

IEEE SPRING SEMINAR

Seminar Committee

General Chairman:	Frank F. Bateman
Vice Chairman:	George L. Finley
Planning:	F. F. Bateman F. A. Jenkins B. V. Martin H. B. Wolf C. J. Wylie
Treasury:	C. E. Harris
Finance:	C. E. Harris K. P. Lau B. V. Martin
Program:	H. B. Wolf
Registration:	Burton H. Wayne
Exhibits:	John Bass Brown
History:	G. L. Finley B. V. Martin C. A. Norwood
Publicity:	George B. Garman
Student Activities:	Edward Jenkins, Jr.
Communication:	David H. Jones
UNCC Student Branch Chairman:	Sarah Kay Cloninger

II. The Institute of Electrical and Electronics Engineers
presents the

IEEE SPRING SEMINAR

Celebrating the 50th Anniversary of the Founding of the
North Carolina Section of AIEE, 1929

"YESTERDAY - TODAY - TOMORROW" is the theme of this Spring Seminar being held in Charlotte on April 20, 1979. Sponsored by the North Carolina Council of the IEEE, this special meeting is being hosted jointly by the Charlotte Section - IEEE and the University of North Carolina at Charlotte - Student Branch.

TECHNICAL PROGRAMS will explore the mysteries of the Electrical Engineering Profession both in the past and the future, with a brief status report on the times we are now passing through. Ladies are invited.

LUNCHEON ADDRESSES will highlight the theme of the Seminar with William S. Lee, President of Duke Power Company, summarizing achievements in the power area and Jerome J. Suran, President of IEEE, bringing us greetings from the IEEE.

EXHIBITS will document engineering progress over the past 50 years, representing a few of the many challenges met and mastered by the Electrical Engineer.

STUDENT ACTIVITIES will provide an opportunity for the practicing engineer to associate with future engineers.

BANQUET SPEAKER Dr. James H. Wright, President of Energy Impact Associates, will provide enlightenment on the environmental impact of those new regulations which are causing so much change and confusion in present day engineering.

III.

IEEE SPRING SEMINAR

Celebrating the 50th Anniversary of the Founding of the
North Carolina Section of AIEE, 1929

Friday, April 20, 1979
McKnight Lecture Hall, Cone University Center
University of North Carolina at Charlotte

PROGRAM SCHEDULE

Registration Desk Opens -----	9:00
Exhibits Area Opens -----	9:10
Opening Remarks and Welcome to UNCC Campus -----	9:45
Greetings - Mr. Frank F. Bateman, General Chairman for IEEE SPRING SEMINAR and Vice President, Engineering and Facilities for Jefferson Pilot Broadcasting Company, Charlotte, NC	
Welcome - Dr. E. K. Fretwell, Chancellor of UNCC	
SESSION I -----	10:00
Chairman - Kwan P. Lau, Chairman - Charlotte Section - IEEE	
PAST, PRESENT & FUTURE POWER GENERATION Mr. Charles J. Wylie, IEEE Fellow and Chief Electrical Engineer for Duke Power Company, Charlotte, NC	
POWER TRANSMISSION & SUBSTATIONS Mr. Frank A. Jenkins, IEEE Fellow and Vice President of the Transmission Department for Duke Power Company, Charlotte, NC	
Mr. Leonard W. Long, IEEE Senior Member and Senior Analytical Engineer, Transmission Department, Duke Power Company, Charlotte, NC	
LUNCHEON -----	12:15
Luncheon Remarks: GREETINGS FROM THE IEEE Dr. Jerome J. Suran, President of IEEE and Staff Executive of the Technical Systems & Materials Technology Operation for General Electric Company, Fairfield, NY	
Luncheon Address: WATER & ELECTRICITY 1929 - 1979 - 2029 Mr. William S. Lee, President of Duke Power Company, Charlotte, NC	
SESSION II -----	2:00
Chairman - Grace F. Phillips, Vice Chairman - Communications Society, Charlotte, NC	
DISTRIBUTION POWER SYSTEMS: Yesterday, Today & Tomorrow Ms. Barbara B. Orr, Supervisor of Customer Engineering for Duke Power Company, Greensboro, NC	
SCIENCE IS NOT MAGIC Mr. Donald L. Elmore, Supervisor of Public Relations for Southern Bell, Charlotte, NC	
STUDENT ACTIVITIES Student Paper Presentation Tour of UNCC Engineering Facilities & Telephone Exhibit; Past, Present & Future	
BANQUET -----	6:30
Banquet Address: ENVIRONMENTAL IMPACT OF NEW REGULATIONS Dr. James H. Wright, President of Energy Impact Associates, Pittsburgh, PA	

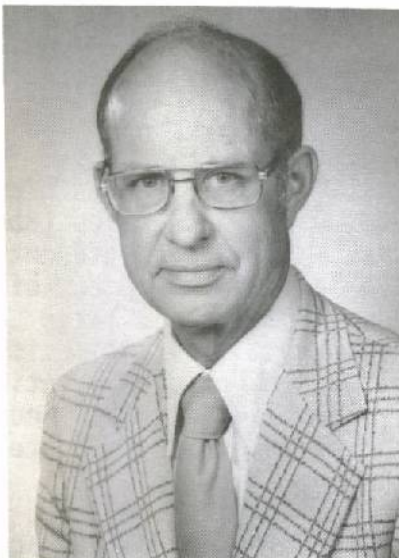
The University of North Carolina at Charlotte is located on Highway NC 49, approximately
3 miles east of I-85 on the north side of Charlotte. Enter at the first traffic light
and follow the signs to the reserved parking area for the Seminar.



CHARLES J. WYLIE

Chief Engineer, Electrical Division, Design Engineering Dept., Duke Power Company. Born: June 20, 1926, Valdese, NC. Received BS in Electrical Engineering at University of South Carolina in 1950.

With Duke Power: worked as Junior Engineer, 1950-1956; CVNPA, 1956-1957; Electrical Engineer, 1960-1965; Principal Electrical Engineer, 1965-1972; Chief Engineer, Electrical Division, 1972-present. Registered PE in North and South Carolina. Member Tau Beta Pi. Fellow of IEEE. Has been very active in IEEE/PES and several other organizations.



FRANK A. JENKINS

Vice President, Transmission, Duke Power Company. Born: January 5, 1920, Stanley, NC. Received Bachelor's Degree (with honors) N. C. State University, 1941.

Worked: G.E. Company Test Program, 1941. With Duke Power: EM&C Dept. Test Engr., 1946; Engineer, Transmission Engineering Dept., 1946-1952; Transmission Line Engr., 1952-1959; Transmission Engineer, 1959-1966; Mgr., Transmission Engineering Dept., 1966-1970; Asst. Vice President, Transmission Engineering, 1970-1971; Vice President, T&EI, 1971-1977; Vice President, Transmission, 1977-present. Registered PE in North and South Carolina. Member, Tau Beta Pi, Eta Kappa Nu. Fellow, IEEE. Charlotte Engineer's Club Distinguished Service Award, 1966. President, IEEE/PES, 1976-1977. Nikola Tesla Yugoslavia Honor, 1977. Is member and has been active in several other organizations.

LEONARD W. LONG



Senior Analytical Engineer, Transmission Dept., Duke Power Company. Born: January 8, 1920, Forest City, NC. Received BSEE Degree with high honors, 1943; MS Degree, 1950, North Carolina State University. Member of the Engineering Faculty, North Carolina State, 1947-1957.

With Duke Power: Distribution and Regional Planning Engineer, 1957-1968; Analytical Engineer, in charge of transmission analytic studies and special projects, 1968-1972; Senior Analytical Engineer, 1972-present. Registered PE in North and South Carolina. Member, Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi, Sigma Xi. Senior Member, IEEE. Has been author and co-author of many IEEE/PES papers and other publications. Made one of his highest contributions in the development and application studies for power transformer standards.

JEROME J. SURAN



President, Institute of Electrical & Electronics Engineers. Received BSEE Degree from Columbia University, 1949; graduate work, Columbia Univ. and Illinois Institute of Technology, 1949-1951.

Worked with J. W. Meaker Co., New York, NY, 1949-1951; Motorola, Inc., Chicago, IL, 1951-1952; G.E. Electronics Laboratory, Syracuse, NY, 1952 to present, where he was active in the development of solid-state devices, circuits and later Lab Manager. Promoted to present position of Staff Executive, Technology Operation, Technical Systems and Materials Sector for G.E., 1978. Registered PE in State of New York. Fellow, IEEE. Member: Sigma Xi, Tau Beta Pi, Eminent Engineer, honorary Doctor of Engineering Degree, Syracuse Univ., 1976. Co-author of two books on transistor circuits, published 40 papers in professional journals and holds 18 patents. He has served the IEEE and his profession in many jobs and areas.

WILLIAM S. LEE

President and Chief Operating Officer, Duke Power Company. Born: June 23, 1929, Charlotte, NC. Received Civil Engineering Degree (Magna Cum Laude) from Princeton University in 1951.



After Navy service, joined Duke Power Co. as Jr. Engineer in Design Engineering Dept. in 1955. Following several promotions was named Vice President, Engineering in 1965; Senior Vice President, Engineering & Construction, 1971; Executive Vice President, 1976; Chief Operating Officer, 1978; Duke Power Co. Board of Directors, 1968-present. Registered PE in North and South Carolina. Member Phi Beta Kappa, Tau Beta Pi, Chi Epsilon. Received George Westinghouse Gold Metal, ASME, 1972; Fellow, ASME, 1972; N. C. Society of Engineers Outstanding Engineer, 1969; Charlotte Engineers Club Distinguished Service Award 1968; National Academy of Engineers, 1978. Presently Chairman of the Board, Charlotte Chamber of Commerce, Mr. Lee is a member of and is active in many professional societies/committees, and many civic organizations.

BARBARA BROCATO ORR

Supervisor, Customer Engineering, Duke Power Company, Greensboro, NC. Born: November 18, 1953. Received Bachelor's Degree, Electrical Engineering at the University of North Carolina, Charlotte, 1975.



Summer work in Design Engineering Dept., Duke Power Co., 1974; received award from N. C. Professional Engineers Society for outstanding paper, "Women in Engineering," 1975; began work in Duke Power's Distribution Dept., Greensboro, 1975; promoted to Supervisor, Quality Assurance, 1976; in charge of Construction Management, worked in all phases of engineering planning for reconductoring, rebuilds; supervised storm duty rotation, 1977; promoted to present position, 1978.

DONALD L. ELMORE



Associate Supervisor, Talk & Lecture Demonstrations, Sou. Bell Tel. & Tel. Co., Charlotte, NC. Born: December 10, 1935. Attended Citadel, received Associate of Arts Degree in Business Administration from Gaston College, 1977.

Worked as Assistant Publisher and General Manager, Gastonia Gazette Newspaper -- eight years, joined Sou. Bell in Directory, 1971; Commercial Dept., 1972; Marketing, 1974; Public Relations, 1977. Participated in Gastonia Jaycees, Optimist, Toastmasters, Salvation Army (Board of Advisors), Heart Board Publicity Chairman, Colonel in YMCA Drive; recipient of Chamber of Commerce Project of Year Award.

JAMES H. WRIGHT



President, Energy Impact Associates, Pittsburgh, PA. Received BS, Chemical Engineering, Texas Technological College, 1948; MS, Chemical Engineering, University of Pittsburgh, 1954; PHD, Chemical Engineering, University of Pittsburgh, 1957.

Worked for Gulf Oil Corporation as Plant Eng. Mgr. (Gas Processing Plant), 1947-1950; Research Scientist on the Gulf Fellowship, Mellon Institute of Ind. Research, 1950-1956; went with Westinghouse as Reactor Physist and Reactor Engineer, 1956-1958; Manager, Advanced Reactor Systems, 1958-1965; Tech. Director, Advanced Reactor Div., 1965-1967; Sr. Consultant to Ex. V.P. of Nuclear Energy Systems, 1967-1969; Gen. Mgr. Environmental Systems Dept., 1969-1977 -- all with Westinghouse. He purchased this Dept. which he started in 1969 and became its president in 1977. Received Westinghouse Order of Merit in 1974; Distinguished Engineer Citation from Texas Technological University in 1973. Member of AICE, ANS, ACS, ASEE, Sierra Club, Trout Unlimited. Member of many U.S. Govt., professional, and other committees involved with nuclear power, chemistry, and environmental matters.

V. CONTRIBUTORS

The IEEE expresses its gratitude to all of the individuals, institutions, and companies who support this organization technically, financially, or otherwise.

Following is a listing of those companies who have made financial contributions in support of this 50th Anniversary Spring Seminar:

Alcoa
Anaconda Company
Armature Winding Company
Associated Engineering Company
Catalytic, Inc.
R. W. Chapman Company
Combustion Engineering
W. R. Daniel & Associates, Inc.
Duke Power Company
N. M. Fowler & Associates, Inc.
General Electric Company
Gould-Brown Boveri
Jenkins Electric Company
Lee Associates of the Carolinas
Chas. T. Main, Inc.
Rochester Instrument Systems
Jake Rudisill Associates, Inc.
Siemens-Allis, Inc.
Update, Inc.
Waggoner-Verhill Associates, Inc.
WBT
Western Electric
Westinghouse Electric Corporation

FIFTY YEARS OF IEEE
IN
NORTH CAROLINA

April 20, 1979

VI.

PREFACE

This is a brief, and by no means complete, history of the IEEE in North Carolina.

On May 13, 1884, the American Institute of Electrical Engineers was formed in New York City. Dr. Nathaniel Keith called for a meeting of electrical engineers in New York City. At this meeting, the AIEE was organized with Norvin Green as President.

On May 13, 1912, the Institute of Radio Engineers was formed at Columbia University in New York City. At this time, Mr. Robert Marriott was elected President.

On March 22, 1929, the North Carolina Section of the American Institute of Electrical Engineers was organized in Charlotte, North Carolina. Mr. E. P. Coles was the first Chairman.

The Institute of Radio Engineers in North Carolina began as a part of the Virginia-North Carolina Section in 1955. In 1957, the North Carolina Section of IRE was formed with Mr. H. A. Arnold as Chairman.

In 1962, the AIEE and IRE approved a merger which officially took place on January 1, 1963.

VII. HISTORY OF THE AIEE IN NORTH CAROLINA

While it is impossible to give credit by name to all of those who have furnished leadership, interest, knowledge, and inspiration to making the IEEE what it is today, one particular group should be acknowledged. The educators and the student branches in the early days were the foundation builders and backbone of our Institute. In 1926, there were only two student branches in North Carolina: UNC at Chapel Hill, and N. C. State at Raleigh. Today there are seven.

IEEE records do not describe his actions from 1926 when Dean Walter J. Seeley came to North Carolina but things began to happen when he came here. From what could be found in the records and from conversations with members who were there, it is obvious that Walter J. Seeley laid the cornerstone for the N. C. Section of AIEE. He built a strong student branch at Duke University which was for many years one of the strongest and best student branches in the Institute. For example, he instilled the enthusiasm and desire to exchange knowledge and the will to succeed in one's profession. He instilled this in his students, some of whom are among our most respected and influential leaders of today. He worked quietly within the organization to usher many IEEE leaders into responsible positions within our society and in industry. His keen interest and motivation resulted in Walter J. Seeley being one of IEEE's greatest members. He was a Fellow in both AIEE and IRE.

The Southeastern Region has been blessed by many men, such as, to name only a few: Professors J. S. Miller, University of Va.; Claudis Lee, VPI; Otto Meier, Duke; R. S. Fouraker, N. C. State; Col. Nickols, VMI; Sam Rhodes, Clemson; and Major Herron, Citadel. Others could be

listed, but this would be getting out of this area.

Remembering that many of the engineering students of today will be responsible engineers and leaders of the future, proper preparation must come first in the student branches.

1979 marks 50 continuous years of activity of the IEEE in North Carolina since the first AIEE Section was founded here. From the beginning in 1884 until 1929, North Carolina was part of the Virginia Section.

In March of 1929, the following met in Charlotte to discuss forming the North Carolina Section of AIEE:

W. H. Browne, Jr., Raleigh	H. W. Oetinger, Charlotte
E. P. Coles, Charlotte	W. M. Piatt, Durham
R. J. Everest, Salisbury	J. H. Roddey, Charlotte
James Fontaine, Raleigh	W. F. Sanders, Baden
R. S. Fouraker, Raleigh	R. S. Schealer, Durham
O. L. Giersch, Charlotte	W. J. Seeley, Durham
E. J. Gluck, Charlotte	H. B. Shaw, Raleigh
H. C. Klingenschmitt, Burlington	M. L. Sisterhamn, Durham
M. E. Lake, Charlotte	F. C. Wiesner, Charlotte
R. R. Laxton, Charlotte	H. B. Wolf, Charlotte
F. L. Moser, Charlotte	

The above group decided to proceed in forming the North Carolina Section, and a nominating committee was appointed.

In checking back and studying the records, it has been interesting to note how the North Carolina Section went about getting things done regardless of rules and regulations. One of the interesting things is that the AIEE Constitution required the signature of 50 members on a petition for forming a new Section. A group of electrical engineers from North Carolina did this by getting 21 members together on March 21, 1929, and deciding that they would form the North

Carolina Section. On May 2, 1929, the first meeting was held in the old Chamber of Commerce Building in Charlotte, North Carolina. Here, the new Section adopted a Constitution which was already printed and submitted. The Nominating Committee, made up of F. L. Moser, Chairman, W. J. Seeley, W. M. Piatt, and E. J. Gluck, proposed the slate of officers for the North Carolina Section.

The first officers of the Section were: E. P. Coles, Chairman; M. E. Lake, Secretary and Treasurer. H. P. Daggett, J. H. Paget, and J. H. Roddey were members of the Executive Committee.

The records show that E. P. Coles, the newly elected Chairman, presided at the meeting and invited a discussion of how the Section might most effectively proceed in order to contribute a definite service to both its members and the Institute. A number of members joined the discussion and the general opinion was that the Section should hold several well-planned meetings each year and make a concentrated effort to increase the membership of the Institute within the state. It is interesting to note that from this early beginning of 21 members, North Carolina now has approximately 2,000 members of the IEEE.

The enthusiasm of the first members continues today, resulting in very good membership growth.

At that first meeting, the new Section set the dates of October 23 and 24, 1929 for the first general meeting of North Carolina Section.

The meeting was to be held at the Southern Manufacturers Club in Charlotte, North Carolina. The program was announced as follows:

"The Waterville Development of Carolina Power & Light"	-----	by Mr. Paget
"New Era in Ship Propelled Machinery"	-----	by F. V. Smith
"Hydro Development in Canada"	-----	by W. S. Lee
"Lighting Disturbances"	-----	by F. W. Peak, of G.E. Co., Lynn, Mass.

October 24 was reserved for an inspection trip of Duke Power Company's Mountain Island Hydro Plant and Riverbend Steam Station near Charlotte.

IEEE forebearers were good planners and organizers, because the first meeting was a tremendous success. Mr. C. O. Kuester, then Secretary and Business Manager of the Charlotte Chamber of Commerce, gave the welcome address. Music was furnished by the staff musician of radio station WBT, Charlotte.

Searching into the records still further, it is interesting to note that this first general meeting held on October 23 and 24 of 1929, had a total attendance of 95 people. This consisted of 45 members, 25 students, and 25 visitors. The minutes of that meeting also show that recognition was made of the student delegation from Duke University in Durham, the University of North Carolina at Chapel Hill, and North Carolina State at Raleigh.

It is also noteworthy that the student branches were organized in the state before the state Section was organized. The University of North Carolina, which no longer has a branch or an engineering school, was the first in attendance, North Carolina State was second, and Duke University (organized in 1926) was third. The records as of August 1, 1930, show that there were 77 members of the AIEE in the state at

that time. In 1932, during the depths of that depression, there were 80 members in North Carolina, and in 1948, 200 members.

Another interesting bit of history -- when the N. C. Section of AIEE was organized in 1929, there was a record of 1875 engineers in North Carolina. Of these, there were 1208 civil engineers, 393 electrical engineers and 224 mechanical engineers. At that time, the total North Carolina engineering membership in all national societies was 645. Today, 50 years later, there are three times more electrical and electronic engineers in North Carolina who are members of the IEEE than the total engineering members in all of the national societies in 1929.

Appendix I includes the by-laws of the North Carolina Section of AIEE. Appendix II shows past officers of that Section.

North Carolina AIEE Subsections, Societies and Groups

The history of all North Carolina AIEE subsections, societies, and groups is not available at this time, but the following information was compiled in hopes that missing information could be added at a later date.

The Charlotte AIEE Subsection was begun much like the North Carolina Section -- with a proclamation. This took the form of an advisement by its new secretary on September 24, 1945: "This is to advise you that the above designated Subsection has been duly organized, and plans to function have progressed as follows: . . . signed E. R. Davis, Secretary."

A meeting of the leading Charlotte members had met for the purpose of getting a local organization active. These members were G. O. Bason, H. B. Wolf, M. F. Leftwich, J. T. Meador, J. G. Carey, C. E. Harris, M. M. York, W. K. Harding, and H. W. Oetinger.

The first meeting was held in the Charlotte library building at 7:30 pm on October 4, 1945, where officers were elected and committee chairmen appointed. A scope of activities was outlined and proposed by-laws requested for Subsection discussion and adoption.

AIEE Headquarters was notified of the Subsection's formation on February 13, 1946, and the Charlotte Subsection was recognized by the AIEE Secretary, H. H. Henline, by letter to the North Carolina Section Secretary, J. W. Kimrey.

The following Charlotte Subsection members served as AIEE Vice Presidents: H. B. Wolf, H. W. Oetinger, and B. V. Martin.

Fellows from the Charlotte AIEE Subsection (now IEEE Section) include: W. S. Lee, C. I. Burkholder, Jimmy Frazer, M. R. Kimbrell, F. W. Lachicotte, W. K. Harding, B. L. Stemmons (all deceased), and O. J. Miller, H. B. Wolf, H. W. Oetinger, J. Q. Wray, F. A. Jenkins, C. J. Wylie, G. W. Thaxton, and E. S. Zobel.

The following served as Chairmen of the North Carolina Section, AIEE: F. L. Moser, W. J. Seeley, M. E. Lake, H. B. Wolf, J. J. Strickland, G. G. Mattison, H. W. Oetinger, G. F. Stratton, B. V. Martin, W. C. Burnett, W. J. Wortman, and M. T. Hatley.

The following served as Secretary, District #4, AIEE: Russell Ranson, H. W. Oetinger, B. V. Martin, and F. A. Jenkins.

Charter members of the Charlotte Subsection, AIEE, are shown in Appendix III.

Officers of the Charlotte Subsection, AIEE, are shown in Appendix IV.

Several groups/societies chapters were formed in the Charlotte AIEE Subsection as follows: the Industrial Power Control Group (1958) later became the Power Group, and now is known as the IEEE Power Engineering Society; the Substation, Transmission and Distribution Group (1958) was discontinued in 1965 as it merged with the IEEE Power Engineering Society; the Communications Group (1960), except for an inactive period (1964-1967), continues to be active. The Power Engineering Society, Charlotte Chapter, has more than 175 members today. The Communications Chapter is small but growing. Chapters such as these are the heart of IEEE activities.

The Eastern N. C. AIEE Subsection: A history of this Subsection is needed but not available at this time. Appendix V shows officers of this Subsection from 1953-1963.

Appendix VI shows officers of the Mid-State AIEE Subsection from 1953-1960. This Subsection, later known as the Winston-Salem Subsection, was formed in 1949.

Appendix VII shows officers of the Western N. C. AIEE Subsection from 1954-1961.

VIII. HISTORY OF THE IRE IN NORTH CAROLINA

The Institute of Radio Engineers was formed in 1912 from the AIEE. Prior to the formation of the North Carolina Section, IRE members in North Carolina were a part of the North Carolina-Virginia Section, part of Region III. At that time, the Washington, Baltimore, and Philadelphia members were in Region III and those areas led in providing Regional Directors.

In the North Carolina-Virginia Section, the major activities were in Blacksburg and Hampton, Virginia, and at Duke and State Universities in North Carolina. With the growth of the Western Electric/Bell Telephone Laboratories in North Carolina, there was a corresponding growth in membership in the IRE and AIEE.

Exact records are not available, but about 1954-1955, an expression of interest meeting was held in Greensboro, N. C., to determine the feasibility of establishing a Piedmont Subsection. About 150 people attended. The Subsection was established in 1955.

In 1957, drafting and circulation of a petition for reorganization of the Subsection into the North Carolina Section, IRE, was accomplished by the Reorganization Committee. The committee was Mr. C. E. Bertie and the objective became fact because of his dedication and perseverance. Mr. H. H. Arnold, Subsection Chairman, became Section Chairman. Mr. C. A. Norwood was elected Chairman of the new Section in 1958.

The North Carolina Section, IRE, included all counties of North Carolina except ten in the northeastern part of the state, which remained in the Virginia Section because of their proximity to the activities in

the Hampton area.

Some of the leaders who were active in the establishment and running of the N. C. IRE Subsection and Section were as follows: H. H. Arnold, C. E. Bertie, C. A. Norwood, G. M. Shelor, C. W. Palmer, C. M. Smith, E. W. Johnson, W. E. Lanford, F. E. Nimmcke, F. L. Hopper, J. I. Barron, Frank Bateman, Charlie Whitley, Cliff Livingston, Francis Nakamura, T. K. Bush, Marvin Minor, and C. B. Mullis.

IX. MERGER OF AIEE AND IRE TO FORM IEEE

Following a vote of the membership of both the IRE and AIEE in the fall of 1962, an agreement of merger took place at the end of 1962, merging the two organizations into one, the Institute of Electrical and Electronics Engineers. The effective date of merger was January 1, 1963.

Actions then took place at the state level in North Carolina. A joint committee was appointed to make dual nominations for four officer positions in the new state organization.

The Nominating Committee approved by the respective Section Executive Committees included:

AIEE	P. S. Colby	Raleigh
	M. T. Hatley, Jr.	Charlotte
	E. Kraybill	Durham
IRE	W. E. Lanford	Winston-Salem
	T. C. Livingston	Charlotte
	A. B. MacIntyre	Chapel Hill

The initial officers elected are listed in Appendix VIII.

The first meeting of the North Carolina Section was held in Greensboro on October 3-4, 1963, concurrent with the eighth annual symposium.

In the North Carolina Section, there were five subsections: Central, Charlotte, Eastern, Western, and Northwestern. In November 1964, Mr. John I. Barron, North Carolina Section Chairman, appointed an Ad Hoc Committee to study reorganization of the Section. Members appointed to the Ad Hoc Committee were: H. W. Augustadt, Chairman; F. E. Nimmcke, C. J. Wylie, J. I. Barron, N. R. Bell, C. J. Reece, and E. L. Getchell.

At about the same time, the Charlotte Subsection proposed Section status for the five Subsections.

X. FORMATION OF AFFILIATION OF NORTH CAROLINA SECTIONS

In an effort to maintain unity of the IEEE in North Carolina, as had been accomplished by the two predecessor organizations, discussions about this were held by the new North Carolina Section Executive Committee. Members from North Carolina's five former Subsections (then proposed to have Section status) agreed with this plan. Annual state meetings had been held, alternately at North Carolina State and at Duke, where both student and industry papers were presented during the day (student exhibits were also presented), and a banquet speaker of some renown spoke in the evening. A proposal for an Affiliation of Sections came from this effort in 1964 by an Ad Hoc State Committee representing the five Sections.

An Affiliation of Sections was a new concept in IEEE. The success of the Ad Hoc Committee was due to careful study of the possibilities, preparation, and meetings with the Board of Directors of the IEEE. Finally, approval was given for this Affiliation of North Carolina Sections in 1966.

Appendix VIII shows the officers of this Affiliation from 1966 to 1971.

In 1972, the IEEE began the Area concept. By this time, affiliations had been formed in Los Angeles and several other metropolitan areas, and IEEE Headquarters realized what we had known for a long time that there is a great advantage for a group of Sections to combine for common interests.

Region Directors were asked to appoint chairmen to help coordinate communications, interests, and unity in their various geographical

boundaries, usually states. These chairmen were called Area Chairmen, and they became members of the various Region Executive Committees.

North Carolina wished to keep its affiliation status as initiated years before, but yielded in order to conform and to be properly recognized by Headquarters and the Region. Appendix VIII shows Area 2 officers from 1972 to 1978.

Finally, in order to maintain full recognition by IEEE Headquarters as an active and viable organization comprised of a group of Sections, North Carolina Area 2 decided to change its status once again. This meant going to council status. Council status for North Carolina IEEE was approved December 8, 1978.

Appendix VIII shows the first officers of the North Carolina Council.

An annual symposium, first held by the Piedmont Subsection, IRE, was continued. After the merger this became a statewide symposium and moved from Greensboro where it had been held on a somewhat regular basis and was rotated across the northern part of the state. Participation was statewide, but sponsors/exhibits were generally from the electronics industry. The twenty-third annual symposium was held in the Royal Villa Motor Inn in Raleigh in November 1978.

Symposium Chairmen, like the five Section Chairmen, are members of the North Carolina Council Executive Committee, as they were during the Area and Affiliation status.

Symposium chairmen form a Symposium Committee each year, and this committee is fully responsible for the planning, programing, exhibits, and social events held at the annual symposium.

These meetings, well attended, generally generate a good profit which is used by the North Carolina Council to operate its business and to support a N. C. Council Bulletin.

This North Carolina Bulletin, published by the Council, began also five years before the merger in 1958. It was first proposed by Messrs. C. W. Palmer and H. H. Arnold.

After the merger, the bulletin served the whole state and was circulated to the state membership, providing news, meeting notices, etc. Except for suspension in 1972-1973 for financial reasons, the bulletin has continued since 1958.

Following are members who have served on the bulletin staff: H. H. Arnold, W. J. Bott, C. A. Norwood, G. M. Shelor, C. E. Bertie, G. L. Finley, H. P. Highsmith, and C. W. Palmer.

In addition to the annual symposium and the bulletin, the North Carolina Council holds three to four Executive Committee meetings each year plus an annual Section Officers Workshop. (The latter was held with Area 1, Virginia, in 1974-79.)

On November 9, 1965, the five Subsections of the North Carolina Section, IEEE, achieved Section status. These are: Central, Charlotte, Eastern, Western, and Winston-Salem. A Cape Fear Subsection has now been formed in the Wilmington area and is a part of the Eastern Section. All five Sections and their various societies/chapters now operate on a calendar basis.

Officers of two of these, since 1963, are shown in Appendix IX. Note that the Northwestern Subsection became the Winston-Salem Section in 1965. It is unfortunate that there is not available a list of past Section officers from the Central, Eastern, and Western Sections to include here.

It is not possible to list here all of the many significant and meaningful activities of these five Sections and the IEEE societies and groups. Many have been outstanding and North Carolina has been recognized as leaders in our Region and in the Institute. North Carolina can be proud that it has played a leadership role in this Transnational Institute in technology as well as the professional part of IEEE. Recently North Carolina provided a president of the IEEE Power Engineering Society (Frank Jenkins from Charlotte) and now provides the Region 3 Director (Roy Harris from Burlington). Many others have served with distinction on a Section, Council, Region, and Institute basis.

XI. CONCLUDING REMARKS

It is hoped that this brief history of the IEEE in North Carolina, although incomplete and probably with some errors, will be a good reference document for members in our state -- especially the younger members and student members. If this will encourage and help to motivate and inform a small percentage of the membership, its objective will be accomplished.

IEEE benefits consultants, educational institutions, and industry, but most of all, it can be a greater benefit for its members who take an active part in its work.

Section leaders are urged to comment on this history and provide good documentation to help it to become more complete and accurate.

Finally, credit for this effort should go to many people whose names appear in this history. Some special credit should go to Mr. Ben V. Martin from Charlotte, who provided most of the information and motivation to put this together, and to Mr. Charles A. Norwood who also provided much information concerned with recent years as well as Winston-Salem Section history.

C. B. Mullis and G. L. Finley

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
NORTH CAROLINA SECTION
PAST OFFICERS

Year 19-	Chairman	Vice Chairman	Secretary-Treasurer	Executive Committee
29-30	E. P. Coles General Electric Co. Charlotte	(Office not yet existent)	M. E. Lake Charlotte	-
30-31	J. H. Paget CP&L Co. Raleigh	-	F. C. DeWeese Raleigh	M. E. Lake J. E. Lear C. E. Waddell
31-32	Prof. J. E. Lear UNC	-	R. F. Stainback Chapel Hill	E. P. Coles Raymond Hunt J. E. S. Thorpe
32-33	Frank L. Moser Duke Power Co.	-	George F. Stratton Charlotte	R. F. Everest R. S. Fouraker E. A. Kilburn
33-34	H. M. Doerschuk Aluminum Co.	-	S. L. Coulter Baden	J. F. Coleman R. S. Fouraker E. E. Kilburn
34-35	Prof. W. H. Browne, Jr. State College	-	R. S. Fouraker Raleigh	B. R. Chamberlain Joel Tompkins C. L. Knotts
35-36	Dr. C. E. Waddell Asheville	-	J. F. Coleman Canton	E. P. Coles Prof. W. J. Miller J. H. Paget
36-37	Prof. W. J. Seeley Duke University	-	Prof. Otto Meier, Jr. Durham	M. E. Lake Albert Milmow J. H. Paget
* 37-38	M. E. Lake Duke Power Co.	-	E. C. Dameron Durham	Fred C. DeWeese Albert Milmow J. E. S. Thorpe
38-39	Prof. R. S. Fouraker State College	-	V. R. Parrack Raleigh	J. A. Jones J. B. London L. R. Ransen
* 39-40	Albert Milmow Charlotte	-	George Bason Charlotte	E. E. Kilburn J. J. Strickland H. E. Wilson
40-41	H. B. Wolf Duke Power Co.	-	W. B. White Charlotte	E. C. Dameron R. S. Fouraker H. E. Wilson
41-42	E. E. Kilburn Tide Water Power Co.	-	C. D. Whaley T. H. Hall Wilmington	Wayne Burch Otto Meier, Jr. H. W. Oettinger
42-43	J. J. Strickland Durham Public Service Co.	-	G. H. Bennett Durham	M. E. Lake H. B. Robinson W. J. Seeley
43-44	H. B. Robinson CP&L Co. Raleigh	-	L. M. Keever Raleigh	Otto Meier, Jr. H. W. Oettinger G. F. Stratton
* 44-45	H. B. Robinson CP&L Co. Raleigh	-	L. M. Keever Raleigh	Otto Meier, Jr. H. W. Oettinger G. F. Stratton
45-46	Prof. Otto Meier, Jr. Duke University Durham	-	J. W. Kimrey Durham	H. M. Doerschuk E. W. Olschner H. B. Wolf

AIEE Past Officers Contd

Year 19-	Chairman	Vice Chairman	Secretary-Treasurer	Executive Committee
46-47	George F. Stratton Charlotte	-	C. W. Moseley Charlotte	Otto Gierch T. H. Hall J. H. Lampe
47-48	E. W. Olschner Carolina Tel. & Tel. Co. Tarboro	-	C. R. Jones Tarboro	N. H. Erlandson R. B. Horning W. F. Sanders
* 48-49	Dr. C. G. Brennecke State College	-	Prof. W. D. Stevenson, Jr. State College	Wade M. Gallant G. G. Mattison Russell Ranson
49-50	George G. Mattison Charlotte	-	Ben V. Martin Charlotte	T. H. Hall F. R. Jackson C. R. Vail
50-51	Fred C. DeWeese CP&L Co. Raleigh	-	N. H. Erlandson CP&L Co. Raleigh	Isaac Fidler G. B. Hoadley E. K. Kraybill
51-52	Ben V. Martin Westinghouse Elec. Corp. Charlotte	-	W. C. Burnett So. Bell Tel. & Tel. Co. Charlotte	E. R. Davis K. T. Knight J. A. Wright
52-53	Wm. C. Burnett So. Bell Tel. & Tel. Co. Charlotte	-	Prof. C. R. Vail Duke University	J. A. Jones H. W. Oetinger E. I. Smith
53-54	Prof. Chas. R. Vail Duke University Durham	H. W. Oetinger Duke Power Co. Charlotte	A. J. Hill General Elec. Co. Raleigh	J. J. Greagan, Jr. W. D. Stevenson, Jr.
54-55	H. W. Oetinger Duke Power Co. Charlotte	K. T. Knight Wm. C. Olsen & Assoc. Raleigh	G. L. Peeler So. Bell Tel. & Tel. Co. Charlotte	W. F. Sanders R. E. Lawrence
55-56	K. T. Knight	J. C. Bregar	E. W. Winkler	E. K. Kraybill L. C. Moore
56-57	J. C. Bregar	W. D. Stevenson, Jr.	M. J. Mulhern	W. J. Wortman
57-58	W. D. Stevenson, Jr.	W. J. Wortman	C. R. Webster	Stacy N. Kirkman C. E. Harris
58-59	W. J. Wortman Duke Power Co.	M. J. Mulhern	M. T. Hatley	A. J. Woody E. K. Kraybill
59-60	M. J. Mulhern	E. K. Kraybill	Frank Vance	F. G. Dellinger A. J. Woody
60-61	E. K. Kraybill	M. T. Hatley	E. J. Moore	Frank K. Vance J. R. Stephens
61-62	M. T. Hatley	P. S. Colby	C. J. Wylie	E. D. Fox
62-63	P. S. Colby		John W. Hatcher	

* Election of officers changed to Spring Meeting.

CHARTER MEMBERS
of
CHARLOTTE SUBSECTION, AIEE

W. W. Ballew, Westinghouse Electric Corp.	H. Francis Kortheuer, Charlotte, NC
George O. Bason, Charlotte, NC	F. W. Lachicotte, Charlotte, NC
Paul B. Beatty, Charlotte, NC	Marshall E. Lake, Charlotte, NC
James T. Boysworth, Albemarle, NC	Mason F. Leftwich, Charlotte, NC
Douglas E. Brady, Jr., Badin, NC	W. C. Lewis, Charlotte, NC
Charles K. Bryant, Sr., Gastonia, NC	G. G. Mattison, Charlotte, NC
Chas. I. Burkholder, Charlotte, NC	James T. Meador, Charlotte, NC
J. Grant Carey, Charlotte, NC	L. F. Meisenheimer, Charlotte, NC
Howard E. Carter, Charlotte, NC	Albert Milmw, Charlotte, NC
E. P. Coles, Charlotte, NC	O. J. Miller, Charlotte, NC
E. R. Davis, Charlotte, NC	Albert C. Morrison, Charlotte, NC
H. M. Doerschuk, Badin, NC	C. W. Moseley, Charlotte, NC
Paul A. Emmons, Jr., Badin, NC	Herbert W. Oetinger, Charlotte, NC
J. W. Fraser, Charlotte, NC	Marion A. Otterbourg, Charlotte, NC
C. B. Galphin, Charlotte, NC	William Parker, Charlotte, NC
O. L. Giersch, Charlotte, NC	W. F. Sanders, Badin, NC
Margaret H. Gilliam, Charlotte, NC	C. M. Schoonover, Charlotte, NC
John P. Hamilton, Charlotte, NC	William Hill Smith, Charlotte, NC
W. W. Hanks, Charlotte, NC	George Richard Steele, Charlotte, NC
Wm. Knowlton Harding, Charlotte, NC	Beverly L. Stemmons, Charlotte, NC
Claude E. Harris, Charlotte, NC	George F. Stratton, Charlotte, NC
W. N. Hipp, Hickory, NC	Wilson L. Stratton, Charlotte, NC
Joe T. Holland, Charlotte, NC	B. O. Vannort, Charlotte, NC
H. W. Horney, Badin, NC	C. M. Wallace, Gastonia, NC
R. B. Horning, Charlotte, NC	D. T. Werner, Charlotte, NC
L. P. Julian, Charlotte, NC	W. J. Wortman, Charlotte, NC
M. R. Kimbrell, Charlotte, NC	H. B. Wolf, Charlotte, NC
	Merton M. York, Charlotte, NC

OFFICERS OF THE CHARLOTTE SUBSECTION, AIEE

	<u>Chairman</u>	<u>Secretary</u>	<u>V. Chairman or 1st V. Chairman</u>	<u>2nd V. Chairman</u>
1945-46	E. O. Bason	E. R. Davis		
1946-47	E. R. Davis	W. B. White		
1947-48	Russell Ranson	J. S. Meyers Ben Martin		
1948-49	B. V. Martin	Mason Leftwich		
1949-50	Mason Leftwich	Greir Wallace		
1950-51	Grier Wallace	W. C. Burnett		
1951-52	W. C. Burnett	C. E. Harris		
1952-53	C. E. Harris	S. W. Cowan		
1953-54	S. W. Cowan	John S. Willis		
1954-55	W. J. Wortman	J. G. Alexander		
1955-56	J. G. Alexander	J. J. Greagan		
1956-57	L. C. Moore M. T. Hatley	Cecil Gadsden	M. T. Hatley	
1957-58	W. K. Harding	H. C. Byrd	Ned Fowler	
1958-59	Ned Fowler	H. L. Whitehead	Cecil Gadsden	
1959-60	W. T. Edwards	O. T. Kirby	Dan McConnell	
1960-61	F. A. Jenkins	D. H. Sterrett	H. L. Whitehead	R. D. Darnall
1961-62	H. L. Whitehead	N. C. McCorkle	D. H. Sterrett	O. T. Kirby
1962-63	D. H. Sterrett	Geo. White	D. M. McConnell	C. J. Wylie

EASTERN N. C. SUBSECTION, AIEE

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>
1953-54	* C. R. Webster		
1954-55	* A. J. Hill	E. K. Kraybill	W. R. Hanchey
1955-56	E. K. Kraybill	Paul S. Colby	E. G. Manning
1956-57	P. S. Colby		E. J. Moore
1957-58	E. G. Manning	E. J. Moore	S. D. Mauney, Jr.
1958-59	E. J. Moore	H. E. Wilson	T. D. Barnes
1959-60	T. D. Barnes	S. D. Mauney	R. N. Brigham
1960-61	Sam Mauney	John Hatcher	John Artley
1961-62	John Hatcher		

* Not on N. C. Section Membership List as of February 1, 1960.

MID-STATE SUBSECTION, AIEE

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>
1953-54	F. K. Vance	* Q. T. Brown R. M. Millen	Harry A. Allen
1954-55	* J. C. Bregar	* Q. T. Brown R. M. Millen	D. H. Mitchell
1955-56	M. J. Mulhern	J. M. Fjeld S. N. Kirkman	M. D. Haines
1956-57	S. N. Kirkman	D. H. Mitchell * S. S. Montgomery	C. A. Rhodes, Jr.
1957-58	D. H. Mitchell	M. S. Gantt B. W. Richardson	* Dallas Chappell
1958-59	M. S. Gantt	E. W. Dolahooke A. C. McCall	E. D. Fox
1959-60	E. L. Getchell, Jr.	J. T. Gathright E. D. Fox	H. L. Chafin

* Not on N. C. Section Membership List as of February 1, 1960.

APPENDIX VII

WESTERN N. C. SUBSECTION, AIEE

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>
1954-55	Ray W. Foster	Roger D. Stuck	Robert W. Kirby
1955-56	John E. Hunter	J. D. Sloan	Robert W. Kirby
1956-57	Roger Stuck		R. W. Kirby
1957-58	R. W. Kirby		John R. Stephens
1958-59	W. E. Schwanhausser		G. L. White
1959-60	John R. Stephens		K. A. Arledge
1960-61	K. A. Arledge		

OFFICERS OF THE NORTH CAROLINA SECTION, IEEE

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>	<u>Treasurer</u>
1963-64	Dr. C. R. Vail	N. R. Bell	C. A. Norwood	S. N. Kirkman
1964-65	J. I. Barron	H. W. Augustadt	D. M. Sterrett	V. D. Duncan
1965	The above officers continued to serve until December 31, 1965.			

OFFICERS OF THE AFFILIATION OF NORTH CAROLINA SECTIONS

1966	G. L. Stanton	C. J. Wylie	E. L. Getchell	E. G. Manning
1967	H. W. Augustadt	C. J. Wylie	E. L. Getchell	H. Owen, Jr.
1968	C. J. Wylie	E. L. Getchell	W. H. Johnson	Dr. T. G. Wilson
1969	E. L. Getchell	J. C. Stuart	F. A. Jenkins	Dr. T. G. Wilson
1970	J. C. Stuart	Dr. J. N. Brown	M. H. Wilson	Dr. T. G. Wilson
1971	Dr. J. N. Brown	R. H. Harris	C. J. Brown	E. L. Hyde

OFFICERS OF AREA 2

1972-73	R. H. Harris	E. G. Craig	G. O. Priddy	E. L. Hyde
1974-75	E. G. Craig	G. L. Finley	J. R. Ridgill	E. L. Hyde
1976-77	G. L. Finley	W. J. Bott	H. G. Koger	R. A. Evans
1978	W. J. Bott	H. G. Koger	S. Lingerfelt	R. A. Evans

OFFICERS OF THE NORTH CAROLINA COUNCIL

1979	W. J. Bott	H. G. Koger	B. H. Wayne	R. A. Evans
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At the June 5, 1964 meeting, Section Chairman, Mr. John I. Barron, appointed Mr. H. W. Augustadt to the Vice Chairman post due to the death of Mr. A. B. Haines on April 28, 1964.

NORTHWESTERN SUBSECTION

The Northwestern Subsection of the North Carolina Section, IEEE included those members residing in the nine northwestern counties: Alleghany, Ashe, Davidson, Davie, Forsyth, Stokes, Surry, Wilkes, and Yadkin.

The Northwestern Subsection held its first meeting on September 19, 1963 at Parkway Chalet (now Winkler), in Winston-Salem.

The officers who served the Northwestern Subsection are listed below:

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>	<u>Treasurer</u>
1963-64	A. B. Haines	J. H. Sees	E. L. Getchell	W. M. Fulp
Note 1	J. H. Sees			
1964-65	J. H. Sees	E. L. Getchell	W. M. Fulp	F. H. Laughter
Note 2	E. L. Getchell	W. M. Fulp	M. H. Wilson	F. H. Laughter
1965-66	W. M. Fulp	M. H. Wilson	F. H. Laughter	C. R. Bishop

Note 1: Mr. J. H. Sees advanced to Chairman upon the death of Mr. A. B. Haines at Whippany on April 28, 1964.

Note 2: Mr. Sees transferred out of the Section in September and Mr. E. L. Getchell became Chairman.

OFFICERS OF THE IEEE WINSTON-SALEM SECTION

1965-66	W. M. Fulp	M. H. Wilson	F. H. Laughter	C. R. Bishop
1966-67	M. H. Wilson	F. H. Laughter	C. R. Bishop	J. B. Carpenter
1967-68	F. H. Laughter	C. R. Bishop	J. B. Carpenter	H. J. Jones
1968-69	C. R. Bishop	J. B. Carpenter	H. J. Jones	C. H. Boyd
1969-70	J. B. Carpenter	A. H. Spinks	C. H. Boyd	J. R. Ridgill
1970-71	A. H. Spinks	C. H. Boyd	J. R. Ridgill	H. R. Jensen
1971-72	C. H. Boyd	J. R. Ridgill	H. R. Jensen	K. A. Byrd
1972-73	J. R. Ridgill	K. A. Byrd	H. R. Jensen	W. D. Tippet
1973-74	H. R. Jensen	W. J. Bott	W. D. Tippet	W. F. Robinson

Officers of the IEEE Winston-Salem Section -- Contd

	<u>Chairman</u>	<u>Vice Chairman</u>	<u>Secretary</u>	<u>Treasurer</u>
1974-75	W. J. Bott	W. D. Tippet	W. F. Robinson	J. T. Main
1975-76	W. D. Tippet W. D. Tippet	W. F. Robinson J. J. Strother	J. T. Main J. T. Main	R. L. Jackson R. L. Jackson
1976-77	J. J. Strother J. J. Strother	J. T. Main R. K. Eldridge	R. L. Jackson R. L. Jackson	D. G. Cox W. F. Robinson
1977-78	R. K. Eldridge R. L. Riddle	R. L. Jackson H. C. Menck	J. H. Pershing J. H. Pershing	R. E. Pursley R. E. Pursley

In the years 1975-78, due to transfers of the officers out of the Winston-Salem Section, new appointments were made by the Executive Committee of the Section.

OFFICERS OF THE CHARLOTTE SECTION, IEEE

	<u>Chairman</u>	<u>Secretary</u>	<u>V. Chairman or 1st V. Chairman</u>	<u>2nd V. Chairman</u>
1963-64	C. J. Wylie	J. G. Alexander	C. Whitley	L. W. Long
1964-65	O. T. Kirby L. W. Long	G. L. Finley	L. W. Long	N. C. McCorkle
1965-66	L. W. Long	F. T. Nakamura	F. C. Dellinger	R. H. Waltman
1966	B. V. Martin	C. B. Mullis	R. D. Dartnall	G. L. Finley
1967	B. V. Martin	C. B. Mullis	R. D. Dartnall	G. L. Finley
1968	R. D. Dartnall	P. M. White	G. L. Finley	J. D. Wolfe
1969	G. L. Finley	B. M. Rice	J. D. Wolfe	A. T. Gannon
1970	J. D. Wolfe	D. McDuffie	A. T. Gannon	N. J. Melton
1971	A. T. Gannon	R. White, Jr.	N. J. Melton	F. F. Bateman
1972	N. J. Melton	R. R. Keith	J. W. Harrawood	R. White, Jr.
1973	J. W. Harrawood	J. W. Lineberger	R. White, Jr.	F. C. Dellinger
1974	R. White, Jr.	W. H. McKinnon	F. F. Bateman	R. H. Waltman
1975	R. H. Waltman	D. L. Pearman	B. H. Wayne	D. D. McDuffie
1976	B. H. Wayne	K. P. Lau	D. D. McDuffie	W. J. Foley
1977	D. D. McDuffie	G. B. Garman	D. L. Pearman	K. P. Lau
1978	D. L. Pearman	C. G. Leonard	K. P. Lau	D. C. Fleming
1979	K. P. Lau	C. M. Allen	D. C. Fleming	C. G. Leonard