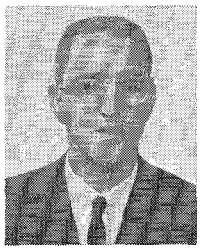
Contributors



Richard Alvarez (S'55–M'59) was born in San Francisco, Calif., on February 24, 1936. He received the B.S. degree in electrical engineering from the California Institute of Technology in Pasadena, in 1957, and the M.S. and Engineer degrees in electrical engineering from Stanford University, Stanford, Calif., in 1958 and 1960, respectively.

Before leaving Stanford University, he participated in high power klystron design studies at the W. W. Hansen Laboratories of Physics. Between 1960 and 1963, he worked on high-power traveling-wave tube development at Sylvania Electric Products, Incorporated, Mountain View, Calif. and on electron-beam parametric amplifiers at Zenith Radio Research Corporation, Menlo Park, Calif. In 1963, he joined the Stanford Linear Accelerator Center as a technical staff member where he has worked on the design and installation of the high-power RF feed network.

Mr. Alvarez is a member of Sigma Xi.

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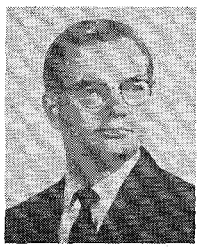

Foster Betts (S'54–M'57) was born in Westport, Conn., on October 27, 1932. He received the B.S. and M.S.E.E. degrees, in 1954 and 1956, respectively, from the University of Connecticut, Storrs.

From 1956 to 1961, he was with the IBM Corporation at Oswego, N. Y., where he worked on aircraft bombing and navigation systems. In 1961, he joined the M.I.T. Lincoln Laboratory, Lexington, Mass., where he is engaged in the development of components for phased arrays.

Mr. Betts is a member of Tau Beta Pi, Eta Kappa Nu, and Sigma Xi.

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Julian Brown, Jr. (S'58–M'59) was born in Opedika, Ala., on September 27, 1932. He received the B.S. degree in electrical engineering from Auburn Community College, Auburn, N. Y., in 1954, and the M.S.E.E. degree from the Georgia Institute of Technology, Atlanta, in 1959.

From 1954 to 1959, he served in the Navy as an Aviator. He joined the Sperry Microwave Electronics Company, Clearwater, Fla., in 1959, as a Senior Engineer, and advanced to Engineering Section Head in 1965. He has participated in research and development work on limiters, circulators, isolators, and phase shifters. In his present position, he is responsible for all phases of product development for advanced ferrite and microwave acoustic devices.

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Michael Cowley (S'62–M'66) was born in New York, N. Y., on May 28, 1937. He received the B.S., and M.S. degrees in electrical engineering from the University of Notre Dame, Notre Dame, Ind., in 1959 and 1961, respectively. He received the Ph.D. degree in 1965 from Stanford University, Stanford, Calif., where he was employed as a Research Assistant in the Quantum Electronics Group of the W. W. Hansen Laboratories of Physics.

He taught in the Department of Electrical Engineering of the University of California at Santa Barbara, during the academic year 1964–1965. He was employed as a Consultant in the Physical Electronics Laboratory of Stanford Research Institute, Menlo Park, Calif., during the summer of 1965, and in October, 1965, joined -hp- Associates, an affiliate of the Hewlett-Packard Company, Palo Alto, Calif., where he is presently employed. His field of specialization is solid-state device theory, and he is currently engaged in device research and development in the Applied Research Department of -hp- Associates.

Dr. Cowley is a member of the American Physical Society, Sigma Xi, and Tau Beta Pi.

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Wayne M. Grove (M'64) was born in Clinton, Iowa, on August 18, 1935. He received the B.S. degree in electrical engineering from Iowa State University, Ames, in 1961, and the M.S. degree in electrical engineering from Stanford University, Stanford, Calif., in 1963.

In 1961, he joined the oscilloscope division of Hewlett-Packard Company, Palo Alto, Calif., and worked on the development of wideband sampling oscilloscopes. In 1963, he joined -hp- Associates, a research affiliate of Hewlett-Packard Company where he has been engaged in semiconductor applications and special purpose functional integration of semiconductor devices. This work was centered primarily in the area of microwave components including mixers, detectors, and samplers.

He is currently Research and Development Manager for the Photoconductor Department at -hp- Associates.

Mr. Grove is a member of Tau Beta Pi, Eta Kappa Nu, and Phi Kappa Phi.

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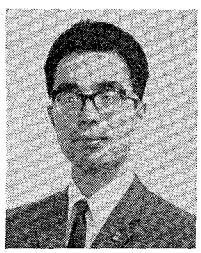

Ken'ichi Iga was born in Hiroshima, Japan, on June 15, 1940. He received the B.S. degree in electrical engineering, in 1963, and the M.S. degree, in 1965, from Tokyo Institute of Technology, Japan.

He is presently studying towards the Ph.D. degree at Tokyo Institute of Technology, on the light beam transmission for laser communication.

He is a member of the Institute of Electrical Communication Engineers of Japan, and a student member of the Japan Society of Applied Physics.

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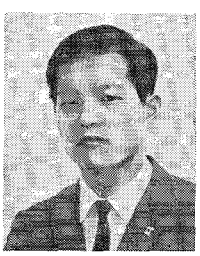
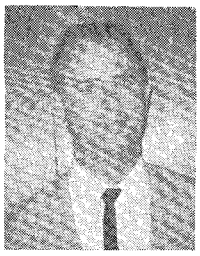


Sin'ichi Ito was born in Japan, on March 6, 1943. He received the B.S. degree in electrical engineering in 1965 from Tokyo Institute of Technology, Japan

He is presently studying in the graduate course at Tokyo Institute of Technology on the light beam transmission, and antennas.



Raymond R. Jones (M'65) was born in Baltimore, Md., on July 11, 1937. He received the B.S. degree from Loyola College, Baltimore, Md., and the M.S. degree from Drexel Institute, Philadelphia, Pa., both in physics, in 1959 and 1963, respectively.

From 1959 to 1962 he was associated with the Materials Testing Laboratory of The Martin Company, Baltimore, Md. From 1962 to 1966, he was a member of the Applied Physics Group, Surface Division, Westinghouse Defense and Space Center, Baltimore, Md., where he was engaged in research and development of numerous microwave components. In July, 1966, he joined Western Microwave Laboratories, Inc., in Santa Clara, Calif., as a Staff Engineer with the responsibility of developing advanced ferrite component techniques.

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Louis J. Lavedan (M'58) was born in New Orleans, La., on November 20, 1933. He received the B.S. degree in physics from Loyola University, New Orleans, La., in 1954, and the M.S. degree in physics from Louisiana State University, Baton Rouge, in 1956.

From 1956 to 1962, he was employed by the Radio Corporation of America, Moorestown, N. J., in various assignments involving design and development of microwave components, specializing in super power duplexer design and high power evaluation. In 1962, he joined Sperry Microwave Electronics Company, Clearwater, Fla., where he has been engaged in design of microwave subsystems development, ferroelectric devices, and latching-type ferrite devices.

Mr. Lavedan is a member of Sigma Pi Sigma.

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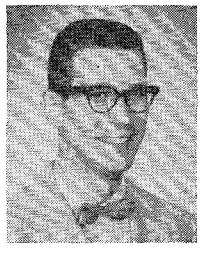

Jack H. Lepoff (M'56–SM'58) was born in Portland, Maine, on July 22, 1923. He received the B.S. degree in physics from the University of New Hampshire, Durham, in 1943, and the M.A. degree in physics from Columbia University, N. Y., in 1948.

From 1954 to 1959, he worked with RF receiver systems and microwave component development at Motorola's Systems Research Laboratory, Riverside, Calif. From 1959 to 1965, he worked at Sylvania Electronic Systems—West, Mountain View, Calif., specializing in the design of broadband tunnel diode amplifiers. In 1965, he joined the staff of -hp- Associates, an affiliate of the Hewlett-Packard Company, Palo Alto, Calif., where he is concerned with the microwave characterization of solid-state devices and their integration into components.

Mr. Lepoff is a member of Phi Kappa Phi.

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James W. McManus (M'65) was born in Grand Ledge, Mich., on March 14, 1938. He attended Alma College, Alma, Mich., from 1956 until 1958, on a pre-engineering course. From 1958–1959, he attended the University of Florida, Gainesville. From 1959 to 1965, he took various correspondence courses. Presently he is attending the University of South Florida, Tampa, and majoring in Physics.

He joined Sperry Microwave Electronics Company Clearwater, Fla., in 1959, as an Engineering Aid in the Antenna Group. In 1960, he joined the Solid-State Development Group of Sperry, and is presently an engineer engaged in the development of microwave ferrite devices.

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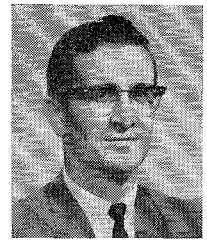

Max C. Mohr (M'57) was born in Cleveland, Ohio, on June 8, 1933. He received the B.S. degree in electrical engineering from Case Institute of Technology, Cleveland, in 1956, and the M.S. degree in electrical engineering from Northeastern University, Boston, Mass., in 1962.

He has been with the Raytheon Company, Bedford, Mass., since 1956, where he has designed and developed microwave components and subsystems, with emphasis on ferrite devices such as circulators and phase shifters. At present, he is serving as Project Engineer providing technical direction of the design and development of a number of phased array antennas. This includes the development of ferrite phase shifters, radiating elements, and antenna feed networks for array antennas at *C*-*X*-, and *K*-bands.

Mr. Mohr is a member of Eta Kappa Nu.

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Stephen R. Monaghan (S'62–M'63) was born in Port Chester, N. Y., on November 14, 1940. He received the B.E.E. degree from Cornell University, Ithaca, N. Y., in 1963

and is currently engaged in part-time graduate work at Northeastern University, Boston, Mass.

Since graduation he has been with the Raytheon Company, Missile Systems Division, Bedford, Mass., working on the research and development of microwave ferrite devices for use in phased array antennas.

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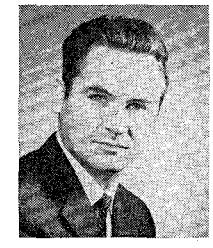

Seymour Okwit (S'55–M'60–SM'61–F'66) was born in New York, N. Y., on August 31, 1929. He received the B.S. degree from Brooklyn College, Brooklyn, N. Y., in 1952, and the M. S. degree in applied mathematics and the M.S. degree in physics from Adelphi College, Garden City, N. Y., in 1957 and 1961, respectively.

He joined the Airborne Instrument Laboratory, Melville, N. Y., in 1955. He is currently Head of the Electrophysics Department, where he is responsible for and directs programs in solid-state devices including masers, parametric amplifiers, ferrite devices, bulk effects of semiconductors and superconducting components.

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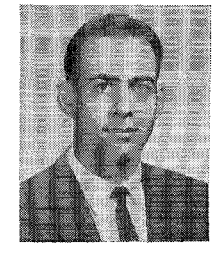
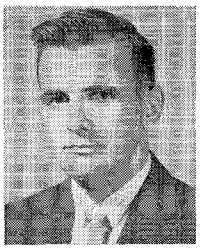


William C. Passaro (S'61–M'63) was born in Brooklyn, N. Y., on March 13, 1931. He received the B.S. degree in electrical engineering from Northeastern University, Boston, Mass., in 1962. He has done graduate work at the Extension Division of the University of Florida, Gainesville, from 1963 to 1964.

He was employed at the Raytheon Company, Spencer Laboratory, Burlington, Mass., from 1958 to 1960, where he worked as a cooperative student on the development of high power carcinotrons. From 1960 to 1962, he was employed as a cooperative student by Ferrotec, Inc., Newton, Mass., where he was engaged in the development of ferrite circulators. He joined the Solid-State Development Group of Sperry Microwave Electronics Company, Clearwater, Fla., in 1962, and is presently Group Leader engaged in the development of microwave ferrite devices.



Joe K. Parks was born in Newnan, Ga., on October 13, 1935. He received the B.S. degree in physics from the Georgia Institute of Technology, Atlanta, in 1961.

He has done graduate work in physics at the University of Florida, Gainesville, and concurrently, with his present duties, is continuing his graduate studies at the University of South Florida, Tampa.

In 1961 he joined the Semiconductor Rectifier Division of the General Electric Company in Auburn, N. Y. At General Electric he was assigned product responsibility for the development of low- and medium-current silicon control rectifiers. Since joining the Sperry Rand Corporation, Clearwater, Fla., in 1962, he has been given various assignments on Loran systems and Penetration Aids traveling wave tubes. In 1965, he was transferred to the Sperry Microwave Electronics Company, Clearwater, Fla., where he has been associated with the Microwave Equipment Group. His work has consisted chiefly of the design and development of digital and analog ferrite phase shifters.

Mr. Parks is a member of Tau Beta Pi, Sigma Pi Sigma, and Phi Kappa Phi.

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Bernard J. Peyton (M'65) was born in New York, N. Y., on April 11, 1937. He received the B.S. degree from the College of the City of New York, in 1959, and the M.S. degree from the Polytechnic Institute of Brooklyn, N. Y., in 1964, both in electrical engineering.

He joined Airborne Instruments Laboratory, Melville, N. Y., in 1959, as an Engineer in the Department of Applied Electronics, where he has been engaged in the development of advanced solid-state devices including maser, semiconductor, and ferrite components for the microwave and millimeter wavelength regions, radiometers, lasers, and microwave spectroscopy.

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Samuel A. Robinson (A'28–M'45–SM'51) died on May 2, 1966. He had received his engineering education at the University of Virginia, Charlottesville.

He had extensive experience in radio engineering prior to 1941. From 1941 to 1962, he was with the Philco Corporation, Philadelphia, Pa., where he was responsible for development and manufacture of transistors and microwave diodes. In 1962, he joined the Semi-conductor Research and Development Laboratory at Texas Instruments Incorporated, Dallas, where he was active in the development of microwave semiconductor components.

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Eugene W. Sard (A'49–M'55) was born in Brooklyn, N. Y., on December 21, 1923. He received the B.S. and M.S. degrees in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1944 and 1948, respectively.

From 1944 to 1946, he served in the U. S. Naval Reserve as a Radar Officer. From 1946 to 1948, he was a Research Assistant in the Department of Electrical Engineering at M.I.T., working on digital computers. Since 1948, he has been with Airborne Instruments Laboratory, Melville, N. Y., at first, in the Radar Department and, more recently, in the Applied Electronics Department, where he is presently a Consultant. For the past eight years he has been working on semiconductor devices with special emphasis on the application of varactors and tunnel diodes to various fields including fast switching, harmonic generation, low-noise amplification, frequency conversion, and detection.

Mr. Sard is a member of Sigma Xi.

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Bruce R. Savage (S'58–M'59) was born in Pittsburgh, Pa., on April 26, 1932. He received the B.E. degree in electrical engineering, in 1959, from Vanderbilt University, Nashville, Tenn., and has done graduate work at the University of Florida, Extension School, Gainesville, Fla.

He joined the Engineering Department of the Sperry Microwave Electronics Company, Clearwater, Fla., in 1959, where he worked on the development of UHF coaxial isolators, parametric amplifier systems, and tunnel diode amplifiers. He is presently a Senior Staff Engineer in the Advanced Ferrimagnetic Devices Section at Sperry, and Technical Group Leader for the development of ferrite digital-phase shifters and microwave acoustic delay lines.

Mr. Savage is a member of Tau Beta Pi.

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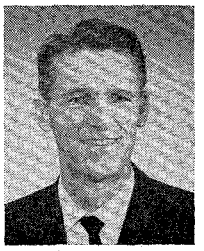
Hans O. Sorensen (S'57–M'58) was born in Seattle, Wash., on May 10, 1929. After service in the Korean War, he attended Illinois Institute of Technology, Chicago,



where he received the B.S.E.E. degree in June, 1958. While employed at the Hewlett-Packard Company, Palo Alto, Calif., he attended Stanford University, Stanford, Calif., under the Honors Cooperative Program and received the M.S.E.E. degree in June, 1960.

At Hewlett-Packard he became involved in detector applications of nonlinear devices. In June, 1963, he transferred to the Applications Engineering Department at hp Associates, an affiliate of Hewlett-Packard, where he is currently involved in microwave, optoelectronics, and other signal processing techniques.

Mr. Sorensen is a member of Eta Kappa Nu and Tau Beta Pi.

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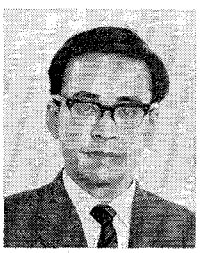

Yasuharu Suematsu (M'62) was born in Gifu Prefecture, Japan, on September 22, 1932. He received the B.S., M.S., and Ph.D. degrees, all in electrical engineering, from Tokyo Institute of Technology, Japan, in 1955, 1957, and 1960, respectively.

In 1960, he was appointed a Research Assistant at the Department of Electrical Engineering, Tokyo Institute of Technology, and in 1961 he was transferred to the Department of Electronics Engineering of the same Institute, as an Associate Professor. At Tokyo Institute of Technology he has been working primarily in the field of microwave tubes, and microwave circuits, especially in microwave retarding circuits, millimeter wave-crossed field tubes, and Esaki-diode microwave amplifiers. He is presently engaged in the study of application of the laser to electronics, light beam waveguide, and solid-state active elements in the microwave region.

Dr. Suematsu is a member of the Institute of Electrical Communication Engineers of Japan, and the Japan Society of Applied Physics.

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Donald H. Temme (S'55–M'56) was born in Wayne, Neb., on January 12, 1928. He received the B.S. degree in electrical engineering from the University of Nebraska, Lincoln, in 1949, and the M.S. degree in electrical engineering from Massachusetts Institute of Technology, Cambridge, in 1955.

From 1951 to 1958, he served in the U. S. Air Force. In 1958, he joined the engineering staff of M.I.T. Lincoln Laboratory, Lexington, Mass.

Mr. Temme is a member of Sigma Xi, Pi Beta Tau, Eta Kappa Nu, and Pi Mu Epsilon.

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C. P. Tresselt (S'56–M'60) was born in Detroit, Mich., on August 25, 1936. He received the B.S.E. degrees in electrical engineering and engineering mathematics in 1958, and the M.S.E.(E.E.) degree, in 1959, all from the University of Michigan, Ann Arbor.

From 1959 to the present, he has been associated with Bendix Research Laboratories, Southfield, Mich., where he has been engaged in the analysis of various aspects of radar system design, and in the development of microwave components. He has most recently been concerned with designing miniaturized airborne antennas and with the synthesis of several classes of directional couplers and constant-insertion-phase networks.

Mr. Tresselt is a Registered Professional Engineer in the state of Michigan, and a member of Eta Kappa Nu and Phi Kappa Phi.

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George D. Vendelin (M'61) was born in Portland, Ore., on October 9, 1938. He received the B.S. degree in 1959, the M.S. degree in 1961, and, in 1963, the degree of Engineer, in electrical engineering from Stanford University, Stanford, Calif.

From 1959 to 1961 he was a Circuit Design Engineer at Lockheed Missiles and Space Company, Sunnyvale, Calif. He was a Research Assistant at the Stanford Electronic Laboratories, from 1961–1963, where he investigated adaptive components utilizing ionic conduction. In 1963, he joined the Semiconductor Research and Development Laboratory at Texas Instruments Incorporated, Dallas, where he has been engaged in the development of semiconductor devices for high-frequency applications. He is currently working with the application of semiconductor devices to microwave integrated circuits.

Mr. Vendelin is a member of Tau Beta Pi.

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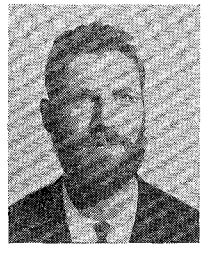

James N. Weaver (S'57–M'60) was born in Gilboa, N. Y. on June 28, 1936. He received the B.S. and M.S. degrees in electrical engineering from the California Institute of Technology, Pasadena, in 1958 and 1959, respectively, and the Engineer's degree in electrical engineering from Stanford University, Stanford, Calif., in 1964.

From 1959 to 1961, he worked for Varian Associates, Palo Alto, Calif., on developing low-power klystron oscillators. Under Prof. R. H. Pantell of the Microwave Laboratory of Stanford University, he worked as a Research Assistant on photomixing of laser signals in a bulk semiconductor, from 1961 to 1964. Since 1964, he has been working on linear accelerators. First, as a Member of the Technical Staff of the Stanford Linear Accelerator Center, he was concerned with microwave phase measurements on waveguide networks, and presently, as a Project Engineer, he is working on the design and development of a superconducting linear accelerator at the W. W. Hansen Laboratories of Physics at Stanford University.

Mr. Weaver is a member of Sigma Xi.

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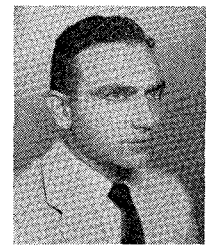
Jerald A. Weiss (SM'61) was born in Cleveland, Ohio, on June 9, 1922. He received the A.B. and M.A. degrees in 1949, and the Ph.D. degree in 1953, all in physics, from the Ohio State University, Columbus.



From 1953 to 1960, he was a Member of the Technical Staff at the Bell Telephone Laboratories, Inc., Murray Hill, N. J., engaged in ferrite device development. In 1958, he was made Supervisor of his Ferrite Device Group. In 1960, he joined in the founding of Hyletronics Corporation at Burlington, Mass., engaged in the development and manufacture of microwave solid-state components and subsystems. In 1962, he was appointed to the faculty of the Department of Physics at Worcester Polytechnic Institute, Worcester, Mass., where he now holds the position of Professor of Physics. Since 1962, he also has served as Consultant to the Array Radars Group at M.I.T. Lincoln Laboratory, Lexington, Mass., where he is concerned with ferrite components and other problems relating to phased array system design.

Dr. Weiss is a member of the American Physical Society, Phi Beta Kappa, and Sigma Xi.

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R. J. Wenzel (S'61–M'62) was born in Milwaukee, Wis., on September 11, 1939. He received the B.S degree in electrical engineering from Marquette University, Milwaukee, Wis., in 1961, and the M.S. degree in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1962, under an Alfred P. Sloan Fellowship.

He joined the Research Laboratories Division of The Bendix Corporation, Southfield, Mich., in 1962, where he has been engaged in the development of exact synthesis techniques for distributed networks, solid-state parametric devices, and harmonic generators.

Mr. Wenzel is a member of Tau Beta Pi, Eta Kappa Nu, Pi Mu Epsilon, and an associate member of Sigma Xi.