

Robert Elim Osborn

March 18, 1911 — April 14, 1989

Robert Elim Osborn was born in LaFayette, Indiana, on March 18, 1911. The eldest of three children in a family where the father was a practicing civil engineer (a builder of bridges), Bob developed an early interest in electrical engineering, the field that was to become his life's work. After receiving the B.S. degree in electrical engineering from Purdue University in 1933, he spent a year with the U.S. Coast and Geodetic Survey and another year with the Delco-Remy Division of the General Motors Corporation. In 1935 he was appointed head of the Electrical Engineering Department at Indiana Technical Institute (now the Indiana Institute of Technology), a position he held until 1941. During his final year at the Institute, he was also engaged as an instructor in electrical engineering in the Engineering Defense Program at Purdue University, with responsibility for developing and helping to teach a course in industrial electronics for practicing engineers from industries in the region. These classes were the first ones given in Indiana under the Engineering Science Management War Training (ESMWT) program and indeed were among the first in the nation. Bob's first association with Cornell came about as a result of his success with the Indiana program.

In the fall of 1941, Bob accepted an appointment as instructor of electrical engineering in the Cornell ESMWT program in the Niagara Frontier Office in Buffalo, New York. In 1943 he became supervisor of instruction, and in 1944 he was promoted to assistant professor in that program. Bob transferred to the campus proper in the spring term of 1945 as an assistant professor in the School of Electrical Engineering, and remained at Cornell for the rest of his career except for sabbatical leaves at several distinguished organizations. He was promoted to associate professor in 1949, and to professor in 1970. He became professor emeritus in 1976. A registered professional engineer in New York State, he served on several important technical-society committees and was a Life Senior Member of the Institute of Electrical and Electronic Engineers (IEEE). He was also a member of the American Society for Engineering Education (ASEE), the American Association for the Advancement of Science (AAAS), and Eta Kappa Nu, the electrical engineering honor society.

Throughout his tenure as a member of the electrical engineering faculty, Bob Osborn was concerned with the study of electric-machine theory and with laboratory practice in machinery and power-system equipment. Together with his colleague Professor L.A. Burckmyer, he was responsible for course development and instruction in these disciplines when they were required of all electrical engineering undergraduates. In later years he offered elective

courses in these areas to both graduate and undergraduate students and developed a reputation as a valuable resource in electric-power systems. He made a profound impact on the careers of his many students at Cornell by his firm requirements for clear thinking and careful application of engineering principles. Bob always felt that with a proper amount of guidance a student learns best by thinking things out for himself. Since he followed this philosophy in both the classroom and the laboratory, many students were often disconcerted by his inclination to de-emphasize lectures. On returning to the campus after several years of industrial experience, however, these same students would gratefully acknowledge that Professor Osborn had taught them the importance of developing their own individual methods of absorbing and processing information.

Bob Osborn's normally quiet, unassuming, and somewhat reserved manner hid a lively sense of humor that would come to the surface in unexpected ways. He particularly enjoyed preparing stunts for the popular "Engineer's Day" exhibitions of earlier years. Once he placed a massive steel cylinder on a sensitive "strain gage" so that the visiting high schoolers and non-engineering students could make the needle of a display instrument go off-scale by the slightest pressure on the top of the bar. Bob would look solemn and assure the amazed participants that they were actually bending the cylinder (as indeed they were). He designed and built a huge tesla coil that allowed him to draw spectacular three-foot-long electric arcs to a hand-held fluorescent tube, all the while keeping a perfectly straight face as if to imply that he was not doing anything out of the ordinary. Bob is probably most famous for his casual remark to students in the laboratory after they had successfully synchronized a small three-phase AC generator to the line, " Now you are supplying power to the entire Northeast."

Bob made his greatest academic contributions in the field of engineering design. Over the years he supervised many graduate and senior design projects, and was particularly effective in directing the design and construction of the electrical and control portions of the Cornell/RPI/NASA Martian Rover Project that was conducted under the Master of Engineering Program in the early 1970s. It should come as no surprise to learn that Bob designed and personally built every component of his own home.

On May 22, 1938, Bob married Doris Arter in Akron, Indiana. He is survived by his wife, who lives in Ithaca, New York; a daughter, Judith Ann Davis of Glenview, Illinois; a son, John David of Pleasant Lake, Michigan; and six grandchildren. Bob took great satisfaction from John's decision to follow in his father's footsteps and become a power engineer with Consumers Power Company in Jackson, Michigan.

Bob Osborn will be long remembered as an outstanding teacher, a respected colleague, and a good friend.