

Jay Zemel, Electrical and Systems Engineering

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DEATHS

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Jay Zemel

Jay Zemel, the H. Nedwill Ramsey Professor Emeritus of Sensor Technologies in the department of electrical and systems engineering, died on July 20. He was 95.

Born in the Bronx, New York, Dr. Zemel was a member of the first freshman class at the Bronx High School of Science. He received bachelor's (1949), master's (1953), and PhD (1956) degrees in physics, all from Syracuse University. While working on his PhD, he took a part-time research position in the Naval Ordnance Laboratory in Silver Spring, Maryland, and after he finished his PhD, he rose to become a supervisory research physicist and head of the surface and film group. In 1966, Dr. Zemel joined the Penn's faculty in what was then known as the Moore School of Electrical Engineering as the RCA Professor of Solid State Electronics.

Dr. Zemel's career at Penn spanned nearly 60 years and was dedicated to work in sensors, sensor systems and thin films. In 1969, Dr. Zemel was selected to direct the new Solid State Electronics Lab at the Moore School (*Almanac* February 1969 (<https://almanac.upenn.edu/archive/v15pdf/n06/021669.pdf>)), and when this laboratory was reorganized to become the Center for Chemical Electronics and then the Center for Sensor Technologies, he remained its director (*Almanac* May 27, 1986 (<https://almanac.upenn.edu/archive/v32pdf/n36/052786.pdf>)). He chaired the department of electrical engineering (today called electrical and systems engineering) from 1972 to 1977. During the 1970s, he also spearheaded a team at Penn that collaborated with the Italian University of L'Aquila, a partnership that strengthened the technological expertise at both universities.

Dr. Zemel served on Penn's Faculty Senate Executive Committee and on the University Council. In 1994, he was named the H. Nedwill Ramsey Professor of Sensor Technologies. Two years later he retired from Penn and the distinction became emeritus. Throughout his career and during his retirement, Dr. Zemel mentored a great number of undergraduate students during their work on senior design projects. He held 26 patents and authored over 120 peer-reviewed journal articles and book chapters, and served as the editor-in-chief of the journal *Thin Solid Films*, based in Lausanne, Switzerland, from 1969 to 1990. From 1994 to 2002, he was chief scientific officer of Scitefair International, and he was a fellow of the Institute of Electrical and Electronics Engineers (IEEE).

Dr. Zemel is predeceased by his wife, Jacqueline (nee Lax), and his companion, Vivian Green. He is survived by his children, Alan Zemel, Babette Zemel (Jon Shapiro) and Andrea Zemel (Adam Brown); his grandchildren, Mark Zemel (Laura Kaltman), Rayna Zemel (Miranda Winters), Aaron Shapiro (Natalie), Gabriel Shapiro (Ria Watko), Miriam Zemel and Jessica Shapiro; his step-grandchildren, Arielle Brown and Lily Brown; and his great-grandchildren, Nico, Wren and Casey. A funeral service was held on July 24. Contributions in Dr. Zemel's memory can be made to Planned Parenthood (<https://www.plannedparenthood.org/> (<https://www.plannedparenthood.org/>)) or to a charity of the donor's choice.