

Generations of STEM: James E. West

Foil Electret Microphone

After spending his childhood with a screwdriver in hand and taking apart anything he could, James headed to Temple University as a physics major. His summer internship position at Bell Labs in New Jersey led to his role in acoustics. While at Bell, he and coworker Gerhard Sessler invented the foil electret microphone.

This microphone was small, precise, and low cost to product. Today, about 90% of all microphones—including those in cell phones, baby monitors, hearing aids and similar devices use this technology.

Retiring from Bell after a 40 year career, he then moved into academia working at Johns Hopkins University. West holds over 250 US and foreign patents and the 2006 National Medal of Technology. Yet some of his most important work is his support and mentoring for students in the STEM fields. West has been active with many groups fostering diversity in STEM and in 2018, at the age of 87 was still working on new inventions. He holds two honorary doctorates among other awards, including the 2006 National Medal of Technology, which is the nation's most prestigious award for the development of technology.

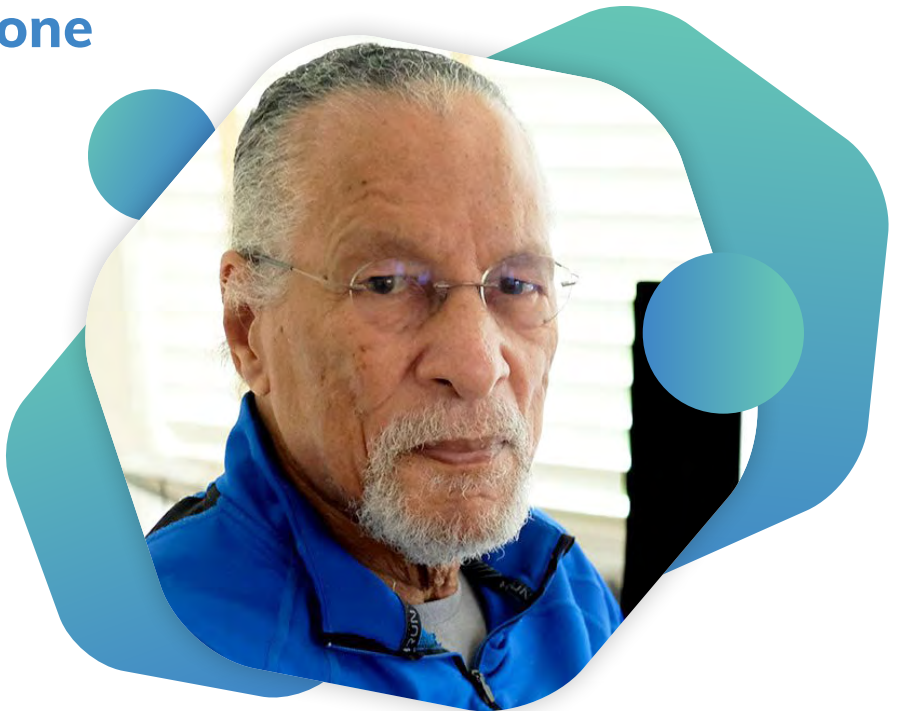


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