

Acousticians inducted into North Carolina State University Mechanical and Aerospace Engineering Hall of Fame

Among the 12 inductees in the 2021 class of the Hall of Fame of the N. C. State University Department of Mechanical and Aerospace Engineering were five current or former members of ASA: Silver Medalist Larry Royster, three of his students – Elliott Berger, Dennis Driscoll, and Ralph Nelson, and Richard Keltie. They join ten prior inductees who also studied and/or taught acoustics in the department: Adnan Akay, Mehmet Caliskan, Noral Stewart, Frank Hart, Ron Bailey, Pat Niskode, John Stewart, Tom Brooks, George Georgopoulos and Fred Ellington. The Hall of Fame was created to honor graduates of the department for professional and service achievement, entrepreneurship, and contributions to professional societies.

Larry Royster joined ASA, began contributing to JASA, and organized the N. C. Chapter of ASA while still a graduate student working on radiation from underwater transducers, a project for which he had arranged support. He became the second professor in the acoustics program in 1968 and remained on the faculty until retirement in 2001. His research interest quickly shifted to industrial workplace noise control and hearing conservation, becoming with his wife Julia world leaders in hearing conservation. He served as chair of the ASA Technical Committee on Noise and received the Silver Medal in Noise. With his wife Julia and students Elliott Berger and Dennis Driscoll, he was editor of the Noise Manual of the American Industrial Hygiene Association (AIHA). Larry passed away in 2019 and Julia accepted for him.

Ralph Nelson was Larry's first PhD student continuing work on the underwater transducer. After an initial work period focused on acoustics, his experience diversified at Los Alamos National Laboratory, but always included emphasis on powerful computing techniques learned under Dr. Royster. He is a fellow of ASME.

Elliott Berger was drawn to NC State for graduate school by a seminar on acoustics. After some initial work with a psychology professor, he was introduced to Larry Royster and the beginning of a lifelong collaboration. Upon graduation he accepted a job developing noise control products for the company that had also invented the foam earplug. He was soon given responsibility to become the expert on hearing protection and protector design. Elliott served on several committees of ASA and was Technical Chair of a meeting. He was a member of several standards writing groups and chair of some. He was President of the National Hearing Conservation Association (NHCA) and the only person to receive all of its awards. Elliott served as chair of the Noise Committee of the AIHA and is a Fellow of AIHA.

Dennis Driscoll had the good fortune of being introduced to Larry Royster as his advisor when he enrolled as a freshman. After completion of his MS under Dr. Royster, he joined Standard Oil of Indiana as their corporate noise control coordinator. He quickly learned that the industrial hygienists at facilities needed training in noise control and developed a class he started offering at annual meetings of the AIHA where it was recognized as the best class offered (out of 60-70) for at least 14 years and second best at least 5 years. Upon leaving Standard Oil, he established a worldwide consulting practice in noise control and hearing conservation where he also taught his class to clients. He was voted among the most admired members of AIHA in an open-ended poll, chaired its noise committee, is a Fellow, and has received the highest honor of AIHA the Henry F. Smyth Jr Award. Dennis served as President of NHCA.

Richard F. Keltie received his education at NC State with graduate degrees in the acoustics program, and then joined the Johns Hopkins Applied Physics Laboratory before returning to NCSU as a professor and later becoming director of the acoustics program. His research was primarily in structural acoustics, response of submerged shells, propagation in large structures, and transient response of complex systems resulting in several JASA papers and presentations to ASA meetings. Dick was chair of the NC Chapter of ASA and a Fellow of ASME. He served as director of the Center for Sound and Vibration, three terms as Associate Dean of Engineering and was the second recipient of the College of Engineering Faculty Distinguished Service Award.

The acoustics program at NCSU was founded as the Vibration and Sound Laboratory by Frank Hart in 1966, becoming the Center for Acoustical Studies in 1969, and later the Center for Sound and Vibration. At its peak,

the program had more than 6 professors with additional professors collaborating in other departments and was the acknowledged leader in the field of industrial workplace noise control.