

# Newton R. and Sarah Louisa Glasgow Wilson Professorship in Engineering



**Newton R.  
Wilson**



**Sarah Louisa  
Glasgow Wilson**

Funds from a charitable trust Mrs. Sarah Louisa Glasgow Wilson had established at Washington University allowed the creation of this professorship.

Born in St. Louis in 1858, Mrs. Wilson was the daughter of William Glasgow, Jr., one of the 17 charter members of the Corporation of Washington University, and the granddaughter of William Carr Lane, the first mayor of St. Louis. She was a graduate of

the Class of 1876 at Mary Institute, then a girls' preparatory division of the University.

In 1897 she married Newton R. Wilson, who had graduated from the University in 1879 with a degree in mining engineering. He contributed to the successes of many American smelting companies until his interest shifted to lumber. He was president of the Industrial Lumber Company in Louisiana when he died in 1914.

Following her husband's death, Mrs. Wilson returned to St. Louis, where she died in 1938. Her interest in philanthropy extended to many organizations, including John Burroughs School, Mary Institute, and the St. Louis Medical Society.

The charitable trust that endowed the Wilson Professorship in Engineering was the last among many contributions Mrs. Wilson made to Washington University for construction of facilities, faculty salaries, and scholarships for women. Her first gift to the University was \$125,000 for the Wilson Swimming Pool, opened in 1922. Later gifts included \$250,000 for construction of Newton R. Wilson Memorial Hall for the study of geology and geography in 1924, \$25,000 for construction of the Women's Building in 1928, and a bequest of \$500,000 as an endowment fund for increases in faculty salaries in Arts & Sciences and the School of Engineering & Applied Science.

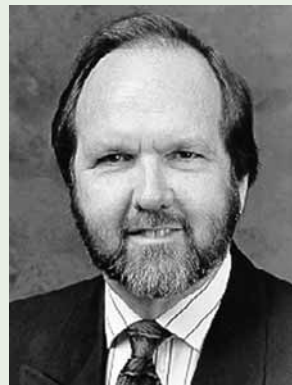
**R. MARTIN ARTHUR**, a specialist in ultrasonic imaging and electrocardiography, was installed as the Newton R. and Sarah Louisa Glasgow Wilson Professor of Engineering in 2004.

Professor Arthur received two bachelor's degrees and a master's degree from Rice University and a Ph.D. degree from the University of Pennsylvania. After a year of postdoctoral work, he joined the faculty of Washington University in 1970. He now holds appointments as professor of electrical engineering and professor of biomedical computing.

In collaboration with the School of Medicine, Professor Arthur has conducted research to improve imaging techniques for the detection of heart disease and cancer. He and his colleagues have identified changes in the electrocardiograms of patients who have suffered heart attacks that indicate increased risk of developing new, life-threatening arrhythmia. Through another series of studies, he has devised synthetic-focus algorithms for the medical

ultrasonic imaging of cancer, which will improve the detection and staging of that disease.

Professor Arthur is a fellow of the American Institute for Medical and Biological Engineering. He is also a member of the Institute of Electrical and Electronics Engineers, the American Heart Association, the American Institute for Ultrasound in Medicine, and the International Society for Computerized Electrocardiography. He has served as a member of the editorial boards of the *Annual Reviews of Biophysics and Bioengineering* and the *Journal of Clinical Engineering*.



**R. Martin Arthur**