As a faculty member at Columbia Engineering for more than a half century, I would like to share with you my perspective on the School’s history and future. Since 1956, Columbia Engineering has been my academic and professional home. As a newly appointed professor in the Department of Civil Engineering and Engineering Mechanics, I joined a faculty that boasted many of the top names in their fields—Rudolf Kalman, known for the Kalman filter; Lotfi Zadeh, who invented fuzzy logic; Ferdinand Freudenstein, father of modern kinematics; Raymond Mindlin, known for his work in the theory of elasticity; Cyrus Derman, known for optimization of stochastic systems; and Elmer Gaden, the father of biochemical engineering.

As you read about our current faculty, you can see that today we have similarly outstanding and innovative researchers who themselves are, or are becoming, the equals of the legendary faculty giants who were here when I arrived more than 55 years ago. What has changed is the nature and practice of engineering, which has now become central to almost all human intellectual activities, ranging from pure science to business and economics. In fact, engineering is now sometimes called the newest liberal art.

This change has served to encourage, and even demand, that a great university such as Columbia have an engineering school even stronger in its engineering-based programs. This impetus has spurred the creation of additional departments—Applied Physics and Applied Mathematics, Computer Science, Biomedical Engineering, and Earth and Environmental Engineering—and many new programs, such as financial engineering, fusion energy, stem cell research, biological systems research, materials and process research at the atomic and molecular levels.

Engineering and applied science research now plays a greatly expanded role in the rapidly advancing biological, physical, chemical, and mathematical sciences, and as such, in the intellectual life of the University.

I am privileged to be a member of this vibrant Columbia Engineering faculty and I know you are as proud as I am of its accomplishments throughout its history and of the bright future that lies ahead.

Morton B. Friedman
Senior Vice Dean and Professor of Civil Engineering and Engineering Mechanics