Honors in Research
Eight books, 120 scientific publications, 37 issued patents, 26 commercial power chip designs, and over 60 international speaking engagements—and that is just a fraction of Gabriel Rincón-Mora’s long list of accomplishments.

This remarkably accomplished Honors College alumnus was born in Venezuela and emigrated to the US when he was 11 years old. During his senior year in North Miami Beach Senior High school, Rincón-Mora attended FIU to work in an electrical engineering lab. It was his introduction to the university and to electrical engineering. He fell in love with both.

Rincón-Mora entered the Honors Program (then known as the Faculty Scholars Program) in 1989. “FIU and the Faculty Scholars Program offered me excellent growth opportunities. Classes were challenging and enlightening,” said Rincón-Mora. “I realized how well prepared I was later when I went to Georgia Tech to pursue my master’s and Ph.D. degrees, because I was as prepared as anybody else there, and in some cases, better.”

Rincón-Mora was a Senior Integrated Circuit (IC) Design Team Leader for Texas Instruments from 1994 through 2003, and has taught at Georgia Tech since 1999. His research focuses on developing microelectronics that draw and condition power from tiny batteries, fuel cells, and the environment, energizing microsystems for biomedical, consumer, industrial, and military applications.

Rincón-Mora's early work focused on battery power and energy for portable consumer products like cell phones and laptops, then moved into harvesting energy from tiny generators that convert ambient energy into the electrical domain. "I have been excited about my work at every stage, and harvesting energy with micro-scale devices is now equally exciting for me," said Rincón-Mora. Many scientists and engineers tend to concentrate on the conversion process, not the management and conditioning aspects of generating the power needed to energize and operate real-life microelectronic systems like wireless microsensors, which can continually collect, process, and report data on their own for months and even years.

Rincón-Mora is also very enthused about his work on piezoelectric, photovoltaic, and thermal harvesters, as well as tiny hybrid fuel cell-battery systems. The common thread (and challenge) in his work is technologies that produce only small amounts of current. His fundamental research is thus in how to draw, condition, and transfer this power extremely efficiently.

When Rincón-Mora is not busy teaching or conducting research, he travels around the world helping others. He has worked with children affected by AIDS and disabilities in India, built schools in Tanzania, and worked with orphans in Mongolia and Vietnam.

Among his nonacademic achievements are climbing Mounts Everest and Kilimanjaro. His philosophy is to live life fully, "because what is important is not the actual end but the process. The value of what we do is our impact on other people’s experience through life. Human interaction is important because its effects never stop rippling through time and space and through others and the people they touch in turn."

When asked to offer advice to current Honors students, he had this to say: "I’m not sure if I’m qualified to offer advice, because like everyone else, I’m still learning. If pressed, I’d say that being passionate, generally optimistic in life, and honorable and professional have helped me. Passionate people care about their jobs, and when you care, you excel. And an optimistic mind not only finds solutions but also attracts them (along with others’ good will). Above all else, though, I believe in compassion."

Rincón-Mora is the recipient of Florida International University’s Charles E. Perry Visionary Award. Georgia Tech also inducted him into its Council of Outstanding Young Engineering Alumni in 2000 and Hispanic Business magazine featured him on the cover of its October 2000 issue as one of the 100 Most Influential Hispanics.