Welcome to the Viterbi School
Remarks by Dean Yannis C. Yortsos, Parents Move-in Day Reception, August 19, 2009

Good afternoon and a warm welcome to all of you from the USC Viterbi School of Engineering!

Obviously, today is an important day for all of us, but especially for you. You have already seen your children successfully celebrate many rites of passage. The move from home to college — and then to a new life away from home — signals an even more important transition.

Today is a day filled with hope, dreams and aspirations for your children — and a day filled with many emotions for their parents.

I know those emotions well. I helped my own daughter move in two years ago, as a Viterbi freshman. Today, she is a junior in Computer Engineering. So, you and I have a strong common bond: We are all Viterbi parents!

You should be proud, as I am, of your children’s accomplishments, and of course, of your own in helping them get here.

This Fall, we once again have a banner entering class — one that has exceeded our expectations in quality. The freshman class continues an ascending trend that leads the university overall. Since 2000, the average SAT scores (Math and Critical Reading/Verbal) at the Viterbi School have risen by 86 points. In fact, this year’s class will most likely top all previous — by another 10 points over last year’s — and we could not be more proud of them.

One third of the entering freshmen are expected to be women; about 15% underrepresented minorities — both well above the national average.

I know that many of our students have elected to attend Viterbi and USC rather than other top institutions. I hope — and I am confident — that four years from now they will know that they could not have made a better choice!

I would like to report some especially good news in this area: In the crucial freshman year, the Viterbi return rates to engineering — namely the percentage of students who start as engineering majors and return to engineering in their sophomore year — has steadily increased: from 84% three years ago, to 90% two years ago, to 92% last year. These are significant gains for a demanding major — the first year arguably being the most difficult in the high school to college transition.

The talents of our freshmen are exceptional, and so are their expectations. I think I can summarize them as follows, in no specific order:

First, they want to belong to a stimulating community that sharpens their skills, cultivates their ambitions, and provides them with the right societal compass — for a community that reaches out deeply to society.

To feel they are part of an environment that is nurturing, without being overbearing; stimulating and demanding, but not impossible — one that will help them enjoy the thrill of discovery, but also of the human dimension; to help them create and innovate — and one that will prepare them for an ever changing future.

To learn the scientific and engineering methods that will help them solve problems, invent the future, and become leaders. They have all it takes to be at the forefront of leadership, technological and societal. The global problems demand it. And our students will be asked to lead the world.

We have created a number of new programs that meet, and hopefully exceed, these expectations. A couple of years ago we created the Division of Engineering Education, one that looks at all dimensions of our curricula. The program on Freshman Academies provides community and a big-picture view of engineering.
Programs like KUUEL, Engineers Without Borders, the Engineering Writing Program and many of the student organizations at Dean Yates’ office provide leadership opportunities. We are constantly looking for internships, “hands-on” creative engagement, and the involvement of industry in design competitions. This year’s senior design class will be theme-based: “assisting people with disabilities,” with students designing devices such as smart canes for the blind, or special software for people with disabilities.

In parallel, our students participate and contribute to research, guided by our faculty, while they receive individual advisement in their studies. We have launched global exchange opportunities with top international institutions such as Tsinghua and Peking University. We created the Fab Lab, a laboratory for the exclusive use of undergraduates, so that they can experiment and design on their own.

And in collaboration with the Keck School of Medicine we are creating a new Health Science and Technology entity with both educational and research components that will bridge medicine and engineering. Indeed, engineering has become the great enabling discipline— one that can unlock the mysteries of other sciences, even the humanities and the arts. At the Viterbi School we call this Engineering+!

In February 2008, the NAE articulated 14 engineering grand challenges. I will enumerate some of them:

- Make Solar Energy Economical
- Develop Carbon Sequestration Methods
- Provide Access to Clean Water
- Advance Health Informatics
- Reverse Engineer the Brain
- Secure Cyberspace
- Restore and Improve Urban Infrastructure
- Advance Personalized Learning

They are all multidisciplinary, and they are all enabling; they address and solve societal needs that transcend countries and boundaries.

The Viterbi School has been a pioneer in promoting these challenges. Earlier this year, we helped organize the first Summit on the Grand Challenges, together with Duke University and the Olin College of Engineering.

As a follow-up, we introduced a Grand Challenges Scholars Program into our curriculum. It is designed to prepare groups of exceptional engineering students to solve the set of problems designated by the NAE as the most urgent and critical issues facing the world today. This is what we expect your children to do— change the world and make it a better place!

With its exceptional students and faculty, the School continues its drive to excellence. Earlier this year, two of our faculty were elected to the National Academy of Engineering, the highest distinction accorded to an engineer. It is the second year in a row that USC had two faculty elected to the NAE — one of only five schools in the nation!

In April, under the leadership of Professor Dan Dapkus, USC was awarded with a $12M grant from the Department of Energy for an Energy Frontiers Research Center. The center, one of more than 40, will research materials to make both solar power and electric lighting more efficient.

And just yesterday, we learned that Andrea Armani and Ellis Meng, two of our junior faculty, were selected as members of TR35 – the annual list of 35 outstanding men and women under the age of 35 who exemplify the spirit of innovation in business and technology selected by M.I.T.’s Technology Review. They are two out of 35. USC Engineering and UC Berkeley were the nation’s only schools with that double distinction!

So, your children are joining a very good place!

I went to a meeting a few years ago where a famous Nobel laureate was asked to what he attributed his success. He answered: “By being around smart people.”

It is one of the best benefits of the Viterbi School that you will also be spending your day around smart people.

Our philosophy is briefly summarized in the following: That all of our constituencies would be able to say:

I am fortunate to be a Viterbi student; or
I am fortunate to be a Viterbi alumnus

Today, I would like to extend it to include you, so that you will also be able to say:

I am fortunate to be a Viterbi parent.

In this expectation I join you myself not only as a Dean, but also as a Viterbi parent.

Thank you!