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Michael Kovak oral history interview by Yael V. Greenberg, May 19, 2003

Michael Kovak (Interviewee)

Yael V. Greenberg (Interviewer)

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USF Florida Studies Center
Oral History Program
USF 50th History Anniversary Project

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Current Position: Professor of Electrical
Engineering, College of Engineering;
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Technology Partnerships for USF

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TOPICS OF DISCUSSION

Year of arrival

Dr. Kovak came to USF in 1977 as associate professor of electrical engineering in the College of Engineering.

Circumstances that brought him to USF

Dr. Kovak came to USF from industry in the Boston area, where he and others started a small company that manufactured testing devices for various industries. He decided that he wanted to return to teaching and research at a university somewhere. He looked all over the southeast to see if positions were available. Coming from industry, he did not know about academic culture. He did not know it was such a rigorous process to be hired on at an institution.

In 1970, prior to his industry activity in Boston, he was at a RCA laboratory in Princeton for four years. At the laboratory, he was involved in groundbreaking research that involved devices now used in television cameras. Dr. Kovak realized that he wanted to get involved again with research once he was working in industry at the small company.

When he came to Tampa, Florida, he had prejudices about the South. When he arrived, he was astounded to find that the Tampa Bay area had a tremendous amount of industrial companies and activities occurring. He wanted to come to a university that had great potential. Dr. Kovak says he was surprised to find that Tampa was like a midwestern city, not tourism based, but working class. Dr. Kovak believes that engineering colleges of the future should be involved in high technology and be located in metropolitan areas. There was not a faculty position available in 1977. However, USF was interested in him and told Dr. Kovak that if he wanted to come as a visiting professor on a year-to-year contract he could. Dr. Kovak agreed. Two years later a faculty position became available and he applied for it and became a member of the tenured faculty. "I selected USF; it did not select me. I selected it because I saw enormous potential where you could really grow and have an impact," he says.

Why did Dr. Kovak choose a university in Florida since he was living in Massachusetts?
He wanted to find an institution where he would have an opportunity to grow. He says many institutions in the north are old and established and have 150-year traditions. “You could just be a small fish in a big pond,” he says. Also, Dr. Kovak’s wife and him had grown up in the northeast and had shoveled enough snow. They thought it might be nice to go where warmer climate was.

What did the USF campus look like in 1977?

“It was very sparse. Not a lot of greenery. Half the buildings that are here today. Engineering college was located way across campus. Now it is really in the middle of campus. The campus was laid out by someone with a vision for growth. It has been an enormous transformation of the campus since that time,” says Dr. Kovak.

What did the surrounding area look like in 1977?

“Fowler Avenue was two lanes. If a faculty member wanted to live near campus, you looked at either Carrollwood or Temple Terrace. There was nothing on Bruce B. Downs,” he says.

Early structure of the College of Engineering

In 1977, the College of Engineering had five departments: Electrical Engineering; Energy Conversion; Structures, Materials and Fluids; Industrial Engineering; and Electronic Systems. Dr. Kovak says at that time, UF had strong control over the education in Florida, particularly engineering education. UF would not permit any new college of engineering to have the traditional names of electrical, chemical, and mechanical engineering, which is what UF called civil engineering. At USF, civil engineering had to be called structures, materials, and fluids, or SMF. Eight to ten years later, USF’s College of Engineering was able to change the name to a more traditional one in order to attract more students. At the time, USF was an undergraduate teaching institution. The dean of the College of Engineering, Ed Kopp, set up the five departments. Dr. Kovak says Dean Kopp also set a culture of inclusiveness and warmth for the College of Engineering that persists to this day. Dr. Kovak says Dean Kopp and some students established the engineering expo, which is an engineering open house. Dr. Kovak says the early structure of the college included non-classical names, and was very focused on undergraduate teaching. Dr. Kovak says a liaison with a cooperation in St. Petersburg led to the cooperation’s interest and funding in helping to start a master’s program in Industrial Management. This master’s program still exists and is one of the major graduate programs that the college has in engineering management.

Why did UF have a strong hold on the non-classical naming system of USF’s College of Engineering?

Dr. Kovak says the Florida legislature was dominated by Florida State University and the University of Florida. Dr. Kovak says UF felt it had a statewide mandate over the new programs at universities. UF was permitting the programs to have only regional impact. “They felt they were the premier institution and would carry the banner for the entire state of Florida; and USF would be some place between a community college and a regular college,” states Dr. Kovak.

Were faculty and students upset by UF's control over the College of Engineering at USF?

“The students didn't see any of UF's influence. Engineering students were delighted to have a place in Tampa where they could get an engineering degree. They did question why USF had the different names for the departments. It was explained to them and they were fine with it. They were interested in getting an education and finding employment,” he states. Dr. Kovak says as time went on it became apparent that it would be in the best interest of USF's College of Engineering to have something more identifiable at a national level in terms of the names of departments. As the university grew and the influence of the two earlier institutions on the legislature and the board of regents began to wane, the College of Engineering was able to change the names of the departments. Dr. Kovak says the name changes did not have a real impact on the students except when students wanted to go to graduate schools and they had to explain what SMF was. Dr. Kovak says students also would have to explain what the energy conversion department was. It was actually mechanical and chemical engineering, but it was difficult for a student to tell a company that he or she has a bachelor's degree in energy conversion. Dr. Kovak says these issues eventually became non-issues once the new names were in place.

How was the individual Department of Electrical Engineering structured when Dr. Kovak first came to USF?

Dr. Kovak says the Electrical Engineering Department was a very traditional electrical engineering department. The department had several strong nationally known faculty members who set a tone different than the tones being set in other departments that were not yet as mature as electrical engineering. Dr. Kovak says having strong players from industry did set the tone of the department.

How diverse were the departments in the College of Engineering?

In 1977, there were two women on the faculty. There were very few women or minority students. Dr. Kovak says the College of Engineering basically mirrored the national trend at the time. Dr. Kovak says engineering was and is still perceived as not being as friendly an environment for women as the College of Business or the College of Medicine for example. Dr. Kovak says that nationwide the percentage of females in engineering is eighteen to twenty percent. Dr. Kovak says USF's College of Engineering is ahead of the national average.

Were faculty members making a career at USF or were they using USF as a stepping-stone?

When he came to USF he saw a stable and committed faculty. He says there may have been one or two faculty members who viewed USF as a stepping-stone. But, the people he remembers as being major contributors to the advancement of the college have been at USF for a long time. Dr. Kovak says many faculty members had opportunities to go elsewhere, but they saw an opportunity at USF to have an impact on individual programs and to set their own direction for research programs.

Many faculty members in the College of Engineering will be retiring soon

Dr. Kovak says since most of the faculty members in the college have been at USF for a long time, there are a number of faculty members who are approaching retirement. “We need to fill their slots with the same kind of people who have had a long term vision for USF,” he says.

Any unique features of the engineering building in the early days?

The first engineering building was built to have a hollow center core in the building around which the laboratories would be built so that if new gas or power lines needed to be installed, one simple hole could be made in the wall on any of the three floors to easily attach the new lines to the main trunk lines. Dr. Kovak says this design was innovative. Dr. Kovak says the first engineering building had a deficiency in windows. Dr. Kovak says at the time many of the buildings on campus were designed with few windows. The engineering building did have a well-designed loading dock and shop for various pieces of equipment to be repaired and designed. He believes that was very beneficial.

Faculty interaction among the College of Engineering and other colleges on campus in the early days

A lot of the interaction that took place was faculty to faculty and through committees. One of the big areas of interaction is curriculum development. The faculty took a very active role with faculty in departments such as English and Mass Communications because an engineering major required students to complete liberal arts courses.

In 1977 the president of USF was John Brown

Three or four months after Dr. Kovak arrived, President Brown invited Dr. Kovak and his wife to dinner. Dr. Brown had an undergraduate degree in engineering. When President Brown retired from being president of USF, he got an office in the College of Engineering. Dr. Kovak and Brown collaborated on many projects together. “He was an outstanding gentleman who I believe set a new high watermark for the concept of the president of the university,” says Dr. Kovak.

Interaction among other presidents of USF

Over the twenty-six years that Dr. Kovak has been at USF, he has had interaction with virtually all of the presidents and provosts of USF because of his position as dean of the College of Engineering. They have all been fascinating in many ways,” states Dr. Kovak.

A president that Dr. Kovak worked closely with or a president that stands out to him

Dr. Kovak says with each of the presidents he has had a different opportunity to work with them. He says it is very hard to compare the presidents because the times are so different from when each was president. Dr. Kovak says that President Frank Borkowski brought fine arts to USF. “President Borkowski was able to garner a lot of support from the local art community downtown. Each one added something to USF. Each left an imprint on the university,” states Dr. Kovak.

What was the average engineering student like? What were their interests?

Dr. Kovak says most of the early students were working their way through college. They had jobs in order to fund their college education. He says there were traditional age students, but also people who were in a second career and were coming back for refurbishing. At the time, the average age of a USF student was twenty-seven years old. Dr. Kovak says the students were very pragmatic and interested in learning the material so that they could become competent and go out and get a job. Dr. Kovak says most of the students were not thinking about graduate school. When he became dean, Dr. Kovak says stressing graduate school was one of the things he and others knew they had to work on in order for the College of Engineering to be effective in the region and effective for students themselves. He found the students to be very bright.

How have Dr. Kovak's students changed in the last twenty-six years?

“There are still students who are absolutely enthusiastic and devoted to what they are doing. Those students set the tone for the class, and set the motivation for the instructor. Those students are always there. To some respects, students have become more consumer-oriented, thinking that what we are delivering to them is a product,” states Dr. Kovak. He recalls a few students telling him that they pay taxes and therefore, they should be entitled to this or that. Dr. Kovak says the experiences of students now are different than the experiences of students twenty-six years ago.

In 1983 Dr. Kovak becomes chair of the electrical engineering department.

Why was and is graduate education important to the College of Engineering?

Dr. Kovak says, “Graduate education has become the major factor for success in engineering education. It is the most important driver for economic development. It is the graduate students that provide the basics for the next generation of technology. Start up companies like to be around that kind of environment. The companies that want to come into the area or want to grow look to universities to provide intellectual horsepower to populate their staff.” Dr. Kovak says that is why graduation education is emphasized in the College of Engineering.

Dr. Kovak becomes dean of the College of Engineering

Dr. Kovak become acting dean of the College of Engineering in 1986, and then became dean of the college in 1987. He remained dean until 1999.

When Dr. Kovak became dean of the college, what initiatives were taking place in the college?

Dr. Kovak says some faculty members were already doing research when he became dean. Dr. Kovak and the department had to figure out a way to reduce the teaching load for faculty members. Also, there were a number of other initiatives on which Dr. Kovak and the department were working. The main initiative was upper education.

Dr. Kovak and others try to get the SEMATECH Corporation to locate in Tampa

In 1987 there was an opportunity that Dr. Kovak and others in the college decided to pursue. A loyal alumnus, who was president of Harris Corporation in Melbourne, approached Dr. Kovak and told him that there was some behind the scenes action

occurring in the semi-conductor industry. He believed that Dr. Kovak and the College of Engineering needed to get involved with the action. A quiet group was concerned about the loss the U.S. was suffering in the semi-conductor industry. Dr. Kovak says virtually all of the semi-conductor process equipment was disappearing overseas, particularly to the Japanese. To counteract this, a corporation was formed called SEMATECH, which stands for Semiconductor and Materials Technology Corporation. The intent of SEMATECH was to launch a frontal assault on the Japanese invasion into the equipment manufacturing business. SEMATECH formed with thirteen companies in the U.S. SEMATECH was going to build a 200 million dollar facility and would have a 200 million dollar yearly budget. SEMATECH mapped out where the industry was going in the next twenty years. The decision on where the SEMATECH facility was going to be located had not been made. Dr. Kovak was told that Florida had a chance at it. The College of Engineering put together a coalition of people downtown, including the mayor at the time and some local high-tech leaders. The coalition put together a plan to go after the site. SEMATECH received fifty propositions from all fifty states. The coalition went to the governor's office and the board of regents. SEMATECH was looking for 100 million dollars in incentives to locate to a particular area. The governor, Bob Martinez, was very receptive to the idea. Dr. Kovak says UF was not a part of the plan because the coalition that Dr. Kovak put together said that if SEMATECH was going to come to Florida it would come to Tampa, and not Gainesville. The governor had just appointed a new secretary of commerce in the state of Florida, Jeb Bush. Jeb Bush became enthusiastic about the plans. A proposal was put together. Legislation was introduced, which failed twice, but then finally passed. At the federal level, Lawton Childs was on the appropriations committee in the Senate. In order for SEMATECH to go forward, the organization needed 200 million dollars from the federal government. SEMATECH reduced the potential locations to twenty and then to six. Florida was still among the choices. However, Florida did not get the site. Lawton Childs had resigned before the decision was made. Dr. Kovak says this was a loss of political strength. Dr. Kovak says that even though Tampa did not get the site, the whole process had galvanized the people of Florida, from the governor on down. The state of Florida received 45 million dollars for state institutions because of the state's efforts.

Dr. Kovak becomes executive vice president and interim provost of USF

Dr. Kovak was provost from 1994 to 1995. He took a year and a half absence from being dean of the College of Engineering.

Why Dr. Kovak became interim provost of USF

When Betty Castor became president of USF, she asked Dr. Kovak if he would help her by serving as the acting provost while she got her team together. Then they did a national search for a provost.

After being dean from 1987 to 1999, what did Dr. Kovak do?

In 1999, he became the Executive Director of High Technology Partnerships for USF. As executive director, Dr. Kovak carried on work that was being done in the high technology corridor. He also nurtured the relationships with high technology industries and the university. Then he was asked to take over and serve as the acting director of

Nano Materials and Nano Manufacturing Research Center, or the NMRC. He is still serving as both the acting director of the NMRC and executive director of high technology partnerships for USF.

What are nano materials and nano manufacturing?

Dr. Kovak says in order to think big you have to think small. Nano refers to ten to minus nine. Nano is 1000 times smaller than micro. Nano technology has to do with a whole series of technologies that are concerned with processes, products and phenomena that take place at the molecular level. “The promise of nano technology is so enormous that the federal government has major programs in it. The federal government this year is spending 700 million dollars in research for nano technology,” he states. Dr. Kovak says with nano technology it is now possible to make a transistor that functions with a single electron flowing through it as opposed to tens of millions of electrons. With nano technology, Dr. Kovak says all the computing powers in USF can be put on something the size of a pin head. Also, nano technology can make very small particles that can be used for sunscreen. Dr. Kovak says on the horizon are nano size chemical dispensers that can cure diseases. Nano technology is something that is done in chemistry, biology, and electrical engineering.

Did Dr. Kovak think he would be at USF for twenty-six years (from 1977 to the present 2003)?

“Every job that I have ever taken was going to be my last job. The idea is to find a niche where you think you can be productive,” he says. Dr. Kovak says the opportunity he saw in 1977 at USF was what drove him to come to the university. He says the opportunities at USF are even greater today. “Why move? It’s all here,” he says.

Any last words that Dr. Kovak would like to leave behind

He really believes that the university is a very precious construct that civilization put together. “I think we need to do everything we can to preserve it. There are assaults on the university. People must try to preserve the essence of the university as it is. Don’t try to make it into a business. The essence of a university is the same as the essence of a democracy. That essence is rational, civilized, and informed debate. If a university does not preserve the ability to perform this kind of debate then it has lost everything,” says Dr. Kovak. He is working with others to set up a debate society.

End of Interview