

# Engineering a Community Resource

*The Newly Ensconced Dean of Cal State Northridge's College of Engineering and Computer Science Plans to Forge Strong Ties With the Local Business Community to Fulfill What He Sees as The School's Role in Providing Manpower For Industry.*

Partner: CSUN's College of Engineering and Computer Science Dean S.K. Ramesh has begun meeting with local businesses to make certain the school meets their training needs.

PHOTO BY RINGO H.W. CHIU

By MARK R. MADLER  
Staff Reporter

The engineering and computer science college at California State University Northridge is, said its new dean, one of the best kept secrets in the San Fernando Valley.

S.K. Ramesh may have only started in his position in August but already he says he has been impressed with the quality of the college's students, staff and faculty.

"We need to constantly communicate to the region what the college is all about," Ramesh said.

Ramesh joined CSUN after serving 19 years at Sacramento State University as an instructor and, later, chair of the Electrical and Electronic Engineering Department. In his new position, Ramesh oversees five departments within the college: civil engineering, computer science, electrical and computer engineering, mechanical engineering and manufacturing systems engineering.

While in Sacramento, Ramesh helped to forge strong ties between the university and the business community and he said he would like to do the same at CSUN, particularly since the greater Valley area is facing a manpower shortage in engineering and science jobs.

The Boeing facility in Palmdale and Capstone Turbine Corp. in Simi Valley, Ramesh said are two examples of local employers who are facing an aging workforce approaching retirement age. Ramesh would like to see the school address the immediate need of finding replacement workers and, long range, to get middle- and high school students interested in careers in engineering, science and technology. He regards his position as an opportunity to work with area companies and high schools to promote the school's programs and to promote the sciences

in high schools.

Since taking over as dean, Ramesh has reached out to the Northridge Academy High School on the CSUN campus about starting a technology program. He has also targeted five Valley high schools to have math and science teachers introduce engineering subjects so that students see it as a viable career.

"Not every job is being outsourced," Ramesh said. "There is plenty of opportunity here for those willing to sacrifice and willing to go through the process of getting an engineering education."

An honors graduate in electronics and communication engineering from the University of Madras, India, Ramesh earned his M.S.E.E. and Ph.D. degrees from Southern Illinois University, Carbondale.

**Question: Can you describe the relationships you forged with businesses when you worked up in Sacramento?**

**Answer:** In our own backyard we had some of the heavyweights in the high tech industry. Intel had perhaps a workforce of 5,000 -6,000 engineers. Hewlett Packard had about the same. It was natural to work with

these companies to meet their immediate workforce needs. At the college in our [electrical and electronic engineering] department we made it a priority to engage them at various levels within our program. So we had an advisory board at the department level where we had senior managers from within the companies advise us on curriculum. At the college level we had VPs and site managers for Intel or HP looking at the overall structure of the program. So that's how it started. The industry was focused on the workforce needs. From a university perspective we saw a broader opportunity for faculty to be engaged in cutting edge technology. One of the first things I established there was a faculty internship program where a faculty member would spend a summer at an industry. What made this unique is the companies in that area sent us engineers to teach in our curriculum. So it was really two-way street.

**Q: Was it a struggle to get them involved or did they understand what you were trying to do?**

**A:** They absolutely did. I think the timing had a lot to do with that. The electric industry was going through a lot of deregulation at the time so there was a lot of turnover in HR. They were losing engineers, losing senior engineers and were concerned about their ability to compete. They rightly made the assessment that in order to be competitive down the road we need to build strong relationships with the community colleges and universities in the area.

**Q: Why did you decide to take the position at CSUN?**

**A:** From a career perspective it was a step up. I was used to dealing with a department. As I worked on projects across campus I had the chance to work with business and industry. I also had the chance to work with the pipeline, the community colleges and high schools that feed us. In order to make an

impact in those areas you cannot do that as a department chair. You need to move up to the next level, which is to be in a position to run a college. When this position opened I researched it. I looked at the industry in this area. I looked at the support the college has gotten over the years. I felt here was a good place for me to go where I can offer something and build on the foundation they already have and take it to the next level.

**Q: How have you familiarized yourself with the industry in the Valley?**

**A:** One of the first groups I visited with last fall was the North Valley Regional Chamber of Commerce. That was a very good meeting in my opinion because [President and CEO Wayne Adelstein] opened the doors to a group of manufacturers in the area. Councilman Greig Smith had a meeting on how education can help the manufacturers of the region. One of the statistics I learned after I got here was that 70 percent of our graduates live and work in the area. On the other hand we hear from manufacturers that they are not finding people and the cost of living makes it hard to bring people from out of state to relocate here. One of my immediate, short-term goals is to bridge that disconnect. If our graduates are living and working in the area and there are manufacturers that have needs, we have to be able to address those needs.

**Q: A recent Business Journal story pointed up the fact that much of the area's job growth is centered on technical, engineering and scientific jobs and most of the area's companies said they were looking to hire. Is that your assessment?**

**A:** They are all across here. On the 118 Freeway up toward Ventura there is a whole bunch of companies in that area, too. We went to Dow-Key Microwave Corp. [in Ventura]. This is part of a \$7 billion company. The gen-

Snapshot

## S. K. Ramesh

**Title:** Dean, College of Engineering and Computer Science, Cal State Northridge

**Age:** 46

**Most Admired Person(s):** "My parents and my family for their unconditional love and support, and Mahatma Gandhi. He said, "We must be the change we wish to see.""

**Career Turning Point:** Teaching my first lecture on electronics as a graduate student at Southern Illinois University, Carbondale

**Personal:** Married to Dr. Utpala Ramesh, Senior Scientist with the California Air Resources Board. Two boys, Arvind and Anjan, ages 16 and 9.

Please see RAMESH page 38

# Let's Shed Negative Views of City of San Fernando

## Major Crimes Are Down Significantly Since 1996

By CHIEF ANTHONY ALBA  
*Police Department, City of San Fernando*

Through the years, the City of San Fernando has been viewed by people from outside the City as a gang and crime infested area. Although the community, City government, and the Police Department have worked diligently to shed the City's old image, the whispers still persist.

Armed with Part 1 Major Crime Offense statistics, the San Fernando Police Department is attempting to correct the misperceptions about crime in our City.

In 1996, the United States Census reported 22,580 residents in San Fernando. Today there are approximately 28,000 residents in San Fernando. Even though the population and density of San Fernando has increased, the crime rate has continued to drop almost every year since 1996. Major crime is down significantly – almost 450 crimes (annually) when com-

pared to 1996 numbers. The percentage of reduction in major offenses from 1996 through 2006 is 33.8%.

While crime numbers for the Seven Major Offenses (homicide, rape, robbery, assault, burglary, larceny and auto theft) have increased nationally, San Fernando's Seven Major Offense Crimes still continue to decrease. Although the San Fernando Police Department cannot guarantee a continuous drop in serious crime, we will continue to work with our residents and urge them to report crime when it is occurring.

The San Fernando Police Department is known for its rapid response to serious crime and emergency calls. San Fernando Police Department has a two and a half minute response time, one of the fastest in the State of California.

My Command Staff and I frequently respond to serious crimes in progress in order to supplement the small patrol force in the field. With a 37-member staff of Police Officers, Detectives, Supervisors, and Command Officers distributed throughout the work week everyone is seen as a Patrol Division asset

when the need arises.

The San Fernando Police Department has a 30 member Police Reserve Officer Division. The Reserve Division provides valuable additional resources during major incidents such as a natural disaster or any other major incident in San Fernando. It is no coincidence that the San Fernando Police Department has a large and productive Reserve Division. In San Fernando there has never been a visible distinction between regular and reserve Police Officers. They all wear a Police Officer badge and uniform and perform virtually the same duties.

San Fernando Police Officers and Dispatchers do not require the public to give their names or addresses when reporting a crime in progress. We would rather have information about a crime in progress and have the opportunity to arrest the offender rather than require people reporting crime to identify themselves first. Many times people end up coming forward anyway once they see their Police Department responding quickly and producing results.

Much of San Fernando's negative image is

unfairly acquired due to media reports of criminal trials and convictions at the Los Angeles County Court building in San Fernando. Most of the criminal trials and activity in this court building are for crimes that occurred in the City or County of Los Angeles.

In San Fernando, where many residents tell the Police that they choose to live there because of the quick response time and efficiency of the Police Department, this winning partnership continues to result in crime reduction. You can actually feel the pride in the members of the San Fernando Police Department (both sworn and civilian) when they talk about their Department's commitment to the community.

It is my hope that by telling our story and showing San Fernando's continuing reduction in crime over the past decade, the City of San Fernando will finally free itself of the old and negative image. Just come and see San Fernando for yourself and you will appreciate the small town atmosphere and a Police Department that is working with the community everyday to reduce the fear of crime and improve quality of life.

# Slama: Sharing Is Important Among Team Members

*Continued from page 29*

• We all know that to throw praise around is not that difficult. A department gathers for an occasion and the awards are handed to those who performed splendidly. As long as contribution of all employees in a department is considered equally and fairly, that should be a happy event. But imagine that you need to offer criticism. That usually is much worse news to swallow. Therefore acceptance of how to deliver criticism must come from those who are criticized as well as from those who criticize.

Also, if you accept the responsibility for a success as well as the responsibility for a fail-

ure, your employees and subordinates will be much more comfortable to take a criticism by themselves.

• Ask people in your team what they are willing to share and what things they consider too sensitive to exchange among themselves.

• What do people at work like or do not like to share? When it comes to work related issues it is quite beneficial to share solutions related to specific problems. Sharing knowledge and an approach to work related issues makes complete sense. Sharing goals and objectives, individual or collective helps members of the team to understand how they view their future.

There are things people find too sensitive to touch. Issues such as gender, race, ethnicity, health condition, financial status, religious inclinations, etc. all these represent enhanced sensibilities for individual workers. Optimally, we want to create a civil and respectful environment. The question, which remains unanswered, is what is better. Do we acknowledge the special sensitivities by tacitly or explicitly agreeing that we would not bring them up? Or do we realize that regardless if we keep silent about these matters they will not go away and at a certain point we need to acknowledge them publicly?

Let me finish with a few cautious remarks. All suggestions mentioned above are good on

many occasions but obviously, they are not good for all occasions. Sometimes a situation is so complex that the leadership of any organization must rely on a gut feeling when it comes to speaking the uncomfortable truth. It is a mark of true leadership to take a risk here and there and to show courage. It comes down to being prudent and at the same time relying on the decision-maker's intuition.

*Milan Slama is president of FocusOn Solutions LLC, a Valley Village-based consulting firm specializing in conflict resolution and team building. He can be reached at (818) 505.1262 or at milan@focuson-solutions.com.*

# Ramesh: Knowledge Won't Be Secured by Borders

*Continued from page 37*

eral manager happens to be an alum who graduated 10 years ago. To me that is impressive for a graduate to go out and be leading a company of that size here in our area and then supporting our program. That is the kind of program we have.

**Q: How do you get young students interested in a career in math, science or engineering?**

**A:** What seems to work with kids is you have to show the relevance of what they are doing. You do that with the aid of activities that are hands on and they can relate to and they should be able to see the connection. I could give you a one-hour lecture on fiber optic communication. Or I could walk you into a laser lab and have you play with the lasers and come out with a good understanding of lasers and their capabilities and limitations.

**Q: Within the curriculum is there a class that's geared more toward business skills rather than theoretical knowledge?**

**A:** Absolutely. When you look at the curricula in general they all have a year-long senior project. Sometimes the problem spec-

ifications come from industry. They have a need for a particular product. In our college we call it a design clinic. So the company comes in and says I need this product done and the design clinic is made up of a faculty supervisor and students who begin to work on the product. The constraints of economics come into play very quickly because they don't have unlimited resources and it has to be a marketable product. Our students get that kind of exposure in the senior project. They work together as a team. Almost all the senior project classes will have an economic constraint built into it, a business model if you will. What is the marketing plan? What is the price point of the product? What do you anticipate your company to be four, five years down the road? The beautiful thing about business is that it brings the practical approach to the classroom so the students understand there are problems out there that defy solutions from any particular discipline. You cannot just be an engineer and say this is my role. Solutions are spread across [disciplines].

**Q: Do you address the issue of outsourcing with the students. Should they be concerned that jobs they are trained for will be relocated overseas?**

**A:** I'd say that any young person going into science, engineering or technology has a wonderful career ahead of them. It's not going to be the same career that engineers today have. Twenty to 30 years down the road they're going to be facing incredible problems with the environment, clean energy, transportation, communications. These are global problems. If you're a United States company addressing these problems you will have a market. But the market may be in Australia, it may be in the Middle East, in Eastern Europe or in India. You have to be willing to go solve the problem where the problem exists. In that perspective I see an unlimited market. People are going to be seamlessly moving across. With the information technology we have, it doesn't matter where you are. All that matters is do you have the skills and abilities to solve the problem. Knowledge is not going to be secured by borders. The successful individual and the successful businesses are the ones that transcend these boundaries and solve the problems.

**Q: Because information technology is so fast moving and always changing is it a challenge to keep the curriculum current?**

**A:** Undoubtedly. It's not a field like

humanities where everything that's written is already there and you can go back and refer to it. The way you overcome the challenge is through interaction between the communities where the changes are taking place literally at the frontier and the classroom. You have exchanges between the communities, i.e., engineers, technicians, scientists coming into the classroom, and students going back into the industries with co-ops and internships, and faculty. If you are going to impact engineering education the faculty needs to take ownership and need to be in the trenches of industry looking at these trends. We have here at CSUN a professor, Shan Barkataki teaching a curriculum on e-commerce. He has an e-commerce lab, very state of the art, looking at today's technology and implementing that in a laboratory setting. IT is very broad. Are our students going to learn all of those skills in four years? Absolutely not. What they are going to learn are the fundamentals and the more exposure we can give our students to project-based learning (the better equipped they will be). If they are able to work with an IT company and bring a project in which forces them to integrate things they learned from various places and put it all together that is going to be a life-long learning experience.