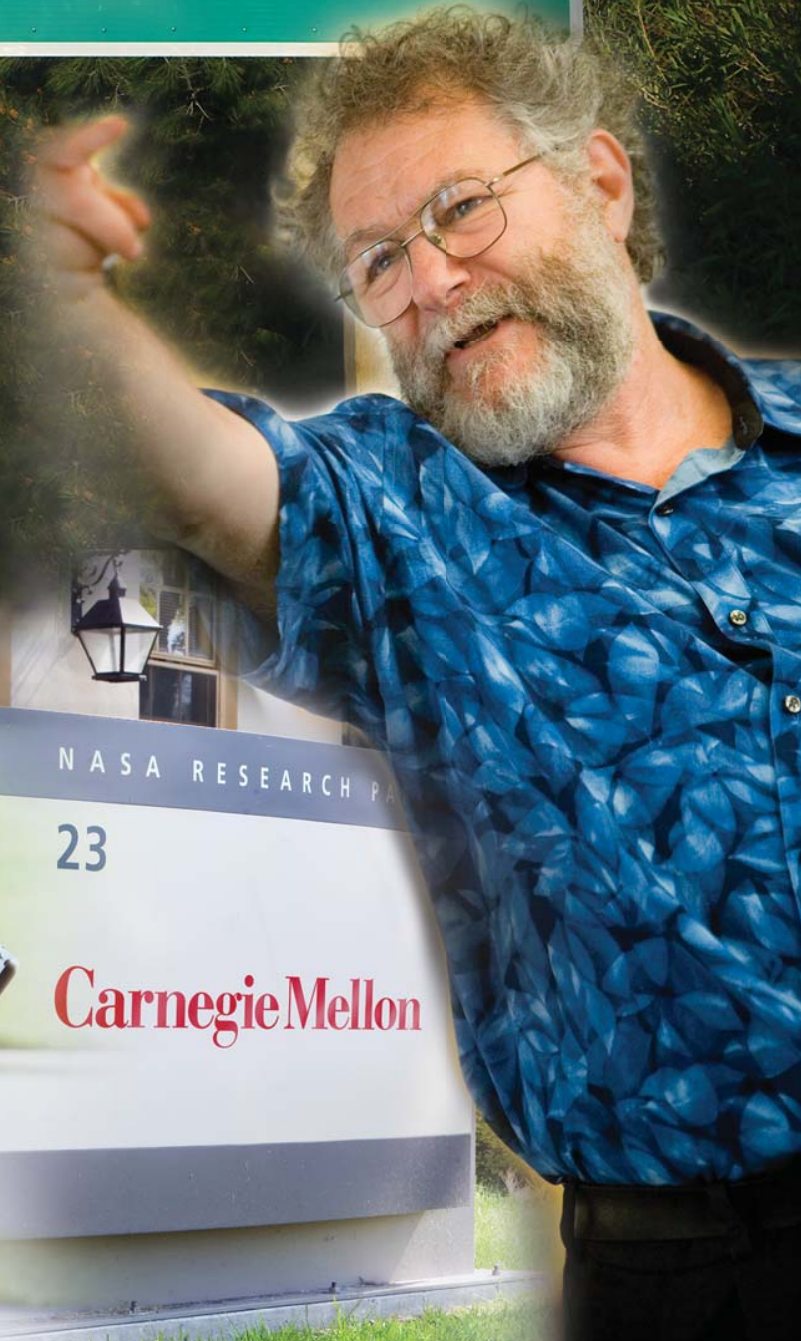


EXIT 398  
Carnegie Mellon  
University  
NEXT EXIT

Moffett Field 1/4  
Mtn View Exit 1/2  
Shoreline Blvd 3/4  
Middlefield Rd



# Silicon Valley: The Land of Opportunity

**Carnegie Mellon's campus in the Silicon Valley is a sun-drenched asset that's tucked in among high-tech corporate giants and major universities.**

**The California West Coast is a great place for technology innovators and Carnegie Mellon belongs there.**

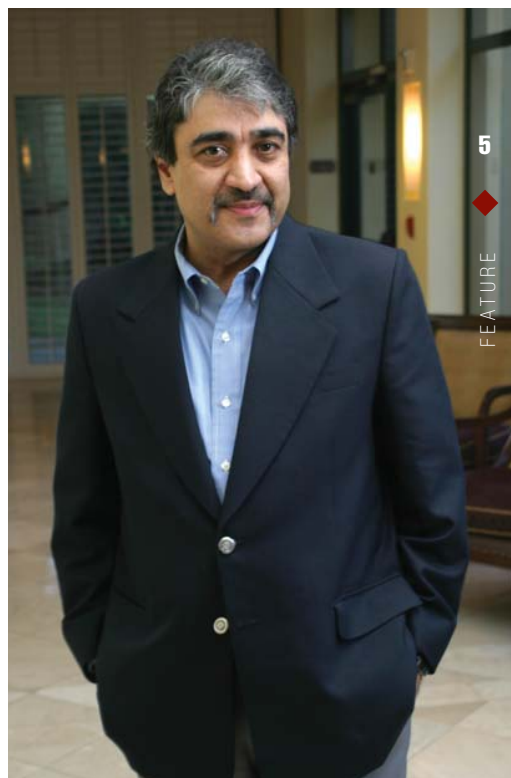
**C**arnegie Mellon University is recognized worldwide for its leadership in information technology research and education, and the Silicon Valley is the capital of the computer business, a bastion for entrepreneurs. Major corporations, such as Yahoo, Microsoft, and Google, are indigenous to the area as are universities like the University of California Berkeley and Stanford. It makes sense for Carnegie Mellon to be here, and since 2002, the university has had a campus in the NASA Research Park in Moffett Field, California. During the last six years, we have made headway into the Valley's business community and have established excellent academic programs, like the part-time Master's of Software Engineering and Master's of Software Management. We have built a strong foundation, and now we're deepening our commitment to the Silicon Valley location. Under the leadership of Pradeep K. Khosla, dean of the College of

Engineering, the university has developed a plan that will fully integrate the Silicon Valley campus with the Pittsburgh campus in terms of both research and education and create an enterprise that will garner worldwide attention. "The university is committed to making the Silicon Valley location an extension of the main university," says Khosla. Efforts are underway to expand and strengthen the offerings there, and the College of Engineering is prominently involved.

## Moving Away From Home

Carnegie Mellon has degree-granting programs around the world – Greece, Qatar, Japan, Australia and Portugal, just to name a few countries – but the school in the Silicon Valley is the university's first campus established outside of Pittsburgh. The idea for the campus formed in 1999 when James Morris, the dean of the West

Coast campus, traveled to California to drum up industry support for computer science. Morris, who back then was the dean of the School of Computer Science, met with a leading technology strategist, who said, "You need to have a presence in the Silicon Valley." After all, the Valley is a hub of the U.S. high-tech industry, and Carnegie Mellon is renowned for producing innovative ideas and well-trained students. They discussed forming a club where California alumni and



Pradeep K. Khosla, Dean of the College of Engineering



The Silicon Valley is known as a center of innovation, and Carnegie Mellon stands among an elite group of top-tier international universities that have shaped the world through education, research and outreach. We recruit our students from all over the world and maintain partnerships around the globe. Carnegie Mellon Silicon Valley will enable the university to better serve the needs of employers who already know and want to recruit our students. In addition, it enables our students to benefit from the best of both worlds: world-class, Pittsburgh-based resources and access to all of the opportunities the Valley offers.

— Dr. Jared L. Cohon, President, Carnegie Mellon University

industry figures could meet, much like the Yale Club in New York. (There are more than 7,000 Carnegie Mellon alumni in California, and 3,000 in the Bay area alone.) Morris then met with Vinod Khosla, a prominent venture capitalist and Carnegie Mellon Engineering alum (E 1978), who said, “Why don’t you build a campus instead?”

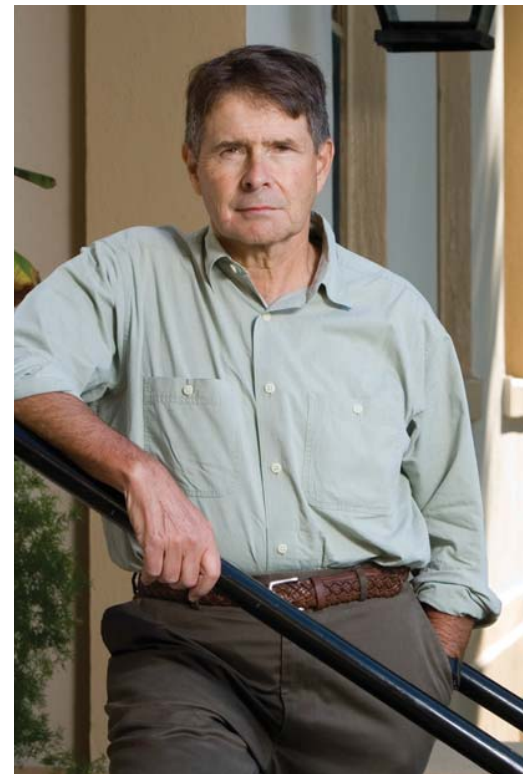
Morris returned to Pittsburgh and shared these ideas with his colleagues, including Raj Reddy and Duane Adams, Vice Provost for Research. They determined that establishing a new campus was feasible. Reddy had contacts with NASA Ames, which was in the midst of developing the NASA Research Center at Moffett Field. Negotiations proceeded and Carnegie Mellon set up shop on the NASA property. NASA awarded the university and other recipients a grant for \$23 million to develop dependable software. In 2002, Carnegie Mellon University in Silicon Valley was officially founded.

Reddy directed the campus in its first phase, launching master’s programs in software engineering and e-commerce. Everything was in place to ensure success for the fledging school – NASA funding, a relevant and high-quality curriculum, students, founding donors who believed in the cause and a beautiful location in the heart of the Silicon Valley. What nobody anticipated was the financial crisis that hit the Valley.

The campus opened its doors as the Silicon Valley’s economy was spiraling downward. “In 2002, companies were less worried about their software being reliable and more concerned if anybody was buying it. We believed that there would be lots of support here, but then the bust,” says Morris, continuing, “The university could have

abandoned the campus, but it didn’t. People had faith in it and contributed to its founding. This campus is a long-term strategic bet.”

Riding out the economic turbulence proved difficult, but the university stuck to its course. NASA, partly because of changes in its strategic direction, was unable to deliver all the funding it had promised. (However, a substantive amount of work continued in dependable computing, and today the campus and NASA collaborate on a vibrant robotics program.) The fact that Carnegie Mellon survived the upheaval in the Valley indicates that the high-tech community values our education and research capabilities. “Today Silicon Valley is back,” says Morris. “We are in constant contact with companies, such as Google, Nokia, SAP, Motorola, Microsoft, HP and IBM.” Businesses are



James Morris, Dean of  
Carnegie Mellon Silicon Valley



again encouraging employee education and pursuing research with the campus, and this is welcome indeed.

### Responding to the Needs of a Global Economy

With the momentum on the upswing, it became clear to Khosla and others that to promote growth of the Silicon Valley campus and ensure its sustainability, its ties to Pittsburgh must be strengthened. In the areas of engineering, computer science and public policy, Carnegie Mellon University is a powerhouse. Carnegie Mellon's might comes from the summation of all of its colleges, research enterprises and the efforts of the university community. Our combined strengths support every campus bearing the name Carnegie Mellon, whether that

campus is in California or Qatar. The campus in the Silicon Valley is not a stand-alone operation.

In this vein, activities at the California campus were carefully evaluated. Until now, students there earned master's degrees in software management or software engineering on a part-time basis. These part-time programs evolved because many of the school's students have full-time jobs and want to accelerate in their careers. Carnegie Mellon Silicon Valley carved itself a niche with these programs – no other school in the vicinity offers comparative high-quality graduate programs on a part-time basis. For working professionals these programs are great, and now there is demand among recent grads for Carnegie Mellon to offer a broader range of programs on a full-time basis. Carnegie Mellon thrives when its education and research programs work in tandem, and full-time programs contribute significantly to a robust research climate. "The part-time programs serve the needs of people working in the area, but we have to do more than that. In the new strategy, the part-time programs are being augmented with full-time master's and Ph.D. programs that will recruit students from all over the world," says Khosla.

Responding to market needs, the College of Engineering developed education programs that have West Coast components. "Students, domestic and international, who want to be entrepreneurs in IT – in areas such as software engineering or management, information security, and mobility – want to go to Silicon Valley because that is where they can network and learn how innovation is implemented," says Khosla. "I have always believed that CIT should embrace the world

and operate beyond Pittsburgh. We have established successful graduate programs outside of the U.S., and now we are going to do the same in California. We are going to leverage our strengths in engineering, information technology, security and innovation in an environment that is rich with opportunities. Our faculty and students in the Silicon Valley will be in close proximity to key industry people, top companies and thousands of alumni."

The university's goal is to integrate Pittsburgh-based academic and research programs into the daily fabric of the Silicon Valley campus, and the programs that Carnegie Mellon is offering are strategic fits for the location. The Information Networking Institute (INI), which has vast experience in establishing programs at international locations, is offering a full-time Master's of Science in Information Technology. What makes this degree pertinent is that students have a choice of three tracks to follow: information security, software management or mobility. Mobility represents a new direction for the INI, explains Dena Haritos Tsamitis, the institute's director, "This is indeed an emerging area that we are very excited about, and one that has become increasingly relevant to industry in Silicon Valley. This area draws from many disciplines at Carnegie Mellon – engineering, human-computer interaction, software engineering and management – and will offer a unique opportunity to students." Other full-time programs added to the Silicon Valley lineup include a Master's of Science in Software Engineering and a Master's of Science degree in Engineering and Technology Innovation Management (E&TIM). The E&TIM program builds upon



Dena Haritos Tsamitis,  
Director of INI



**“Carnegie Mellon’s technical strengths, problem-solving culture, and ability to work across disciplines form the foundation of our education and research programs that educates students who are ready to hit the ground running and provide immediate value to the companies that hire them. Our leadership in engineering, computer science, business and mobile computing makes us a perfect fit for the ever-changing needs of today’s global economy. In the Valley, our students can exercise what they learn in the classroom and gain access to high-tech companies and networking opportunities.”**

– Mark Kamlet, Provost, Carnegie Mellon University

the technical strengths of engineers and scientists by providing frameworks to lead, foster and manage technical innovation. “Being on the West Coast is an exciting location in terms of entrepreneurship and innovation. Carnegie Mellon’s Bay area alumni are very active in this,” says Eden Fisher, the director of E&TIM. (She regularly invites these alumni to Pittsburgh to lecture students.)

Students enrolled in the Information Technology and E&TIM programs are required to take courses in Pittsburgh and the Silicon Valley. “Students will have the best of both worlds, but most importantly, they will have a true Carnegie Mellon experience,” says Tsamitis. For their first term, students will take courses in Pittsburgh

and explore the full breadth of Carnegie Mellon’s technical, business and public policy offerings. Then they will do a term in California, where they can focus on topics that are tailored to their interests and vital to high-tech industries. Depending on their programs, they may do a final term back in Pittsburgh. (Note: The university is making a significant investment to build several state-of-the-art distance learning classrooms at the West Coast campus so that students there and in Pittsburgh can take courses together.)

A distinguishing feature of the CIT programs is that students will have opportunities to pursue internships in Silicon Valley-based companies. “From experiences in both Pittsburgh and Silicon Valley, students will increase their technical knowledge, build

their management capabilities and develop a strong network of contacts, all of which are long-lasting benefits that broaden their career prospects at graduation and in the future,” says Tsamitis.

The implementation of the new strategy starts this fall, with the full-time master’s programs. The plan also includes a Ph.D. program in Electrical and Computer Engineering, in which doctoral students can travel to California to conduct research. On the research front, again the university’s commitment to this campus becomes evident: Carnegie Mellon CyLab has created a mobility research center that will encourage the forging of public-private partnerships to solve problems in the broadly defined area of mobility. To jumpstart programs in mobility

Eden Fisher, Director of E&TIM



and security, CYLab will invest \$2 million over the next two to three years. The center will be managed so that faculty, students and industry partners can participate regardless of their geographical location.

“Mobility represents a significant growth area for the university,” says Khosla. Most people in the world will be exposed to computing through a handheld device, and it will probably be a telephone. Companies in the Valley are very enthusiastic about mobile applications, and so is Carnegie Mellon. Khosla says, “We already have several ongoing programs, such as the GREY Project [off-the shelf “smart phones” are morphed into highly secure, access-control devices], and Motorola and Nokia are going to support the new mobility center. We have a single mobility research program that is transcending Pittsburgh and the Silicon Valley. This is what we want to do.”

Integration is the key to turning the Silicon Valley campus into a successful extension of Carnegie Mellon. “We are going to integrate the East and West Coast campuses through our students, faculty hires and research,” says Khosla. “Over time we may expand the programs to reflect our strengths in energy or the environment or other disciplines. Organizations like the Donald H. Jones Center [in the Tepper Business School] are in place to support entrepreneurship. There are thousands of alumni in the Bay area, and many of them work in companies we’re involved with. The new strategy will ensure the continuing growth of Carnegie Mellon in the Silicon Valley.”

# What We Offer in the Silicon Valley

## Dual-Location Programs (Pittsburgh and Silicon Valley)

**Master of Science in Information Technology:** This professional full-time graduate degree program integrates technology, management and industry experience and prepares students to become intelligent decision-makers in the IT field. Students have a choice of three tracks: Mobility, Information Security and Software Management. For details, visit: [www.ini.cmu.edu](http://www.ini.cmu.edu).

**Master of Science in Engineering and Technology Innovation Management:** This program enables students to develop capabilities for leading innovation while growing and leveraging their own areas of technical expertise. For details, visit: [www.cit.cmu.edu/etim](http://www.cit.cmu.edu/etim).

## Single-Location Programs (Silicon Valley)

**Master of Science in Software Engineering:** This new full-time program is designed for technical professionals interested in working as software engineers, developers, team leaders and architects.

**Master of Science in Software Engineering (Part-time):** This program offers either a Technical track or a Development Management track. The Technical track appeals to software developers who aim to advance to a senior developer or architect role. The Development Management track suits software developers who want to advance into technical project or software development management roles.

**Master of Science in Software Management (Part-time):** This program prepares experienced software engineers and project managers for leadership roles in software business management.

For details on these three programs, visit: <http://west.cmu.edu>