Faculty Spotlight

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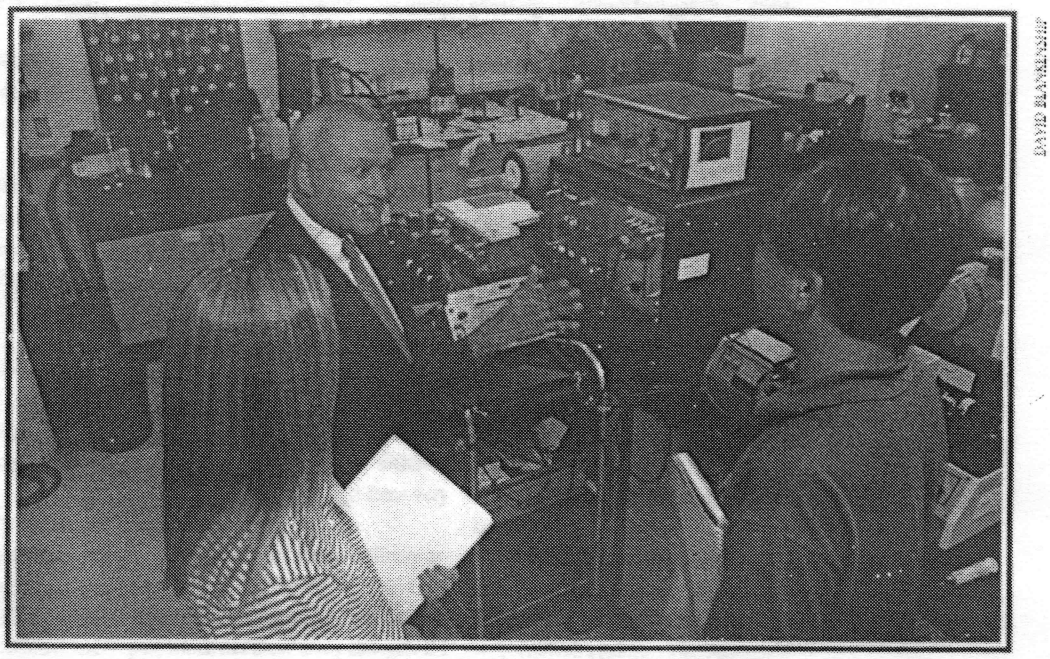

DAVID BANKSTON

Dinesh O. Shah

BY RICHARD JONES

FORGET the plaques. Forget the trophies and the commendations. The greatest award Dinesh O. Shah has yet received in his professional career is a bottle of golden Fetzer 1991 Sundown Chardonnay.

"When I came in this morning, my secretary brought in this bottle of wine," Shah said during an interview in June. "It has a very unusual story attached to it. It is from a female student who came in here last week."

The student had received her bachelor's degree from the University of California at Berkeley and was considering the Chemical Engineering department for graduate study, Shah said. During their conversation, the woman told Shah she wanted to eventually become a teacher.

"I talked to her from my own experience about what it is to be a good teacher and what she should do as a graduate student; learn in broad areas, and work with someone on the frontiers of science and engineering," Shah said. "We had a half-hour conversation and then she left."

Before returning to California, the student brought the bottle of wine to Shah's office as a token of thanks and appreciation.

"This is the real reward," Shah said, holding up the bottle. "I influenced one young woman's life in that short time. If she becomes a professor, she will remember me. She left an unforgettable imprint on me and I left an unforgettable imprint on her."

His elation over influencing a student's decision and life is typical, if that word can be used in connection with Shah, who is the director of the college's Center for Surface Science and Engineering. Even his job, in which he holds a joint professorship in Chemical Engineering and Anesthesiology, is atypical. Shah's career as a rebel began almost as soon as he could walk in his native India.

Shah's father died when Shah was 9 years old, leaving the family to face tough times. Despite being told by a priestess that he would be lucky to pass high school, Shah made it to the University of Bombay with help from relatives and friends and money from academic awards earned in high school. While at the university, Shah approached a wealthy family living there and was hired to tutor the servants' children. With help from his tutor's salary, Shah was able to earn a bachelor's degree in physics and mathematics in 1959 and a master's degree in the emerging field of biophysics in 1961.

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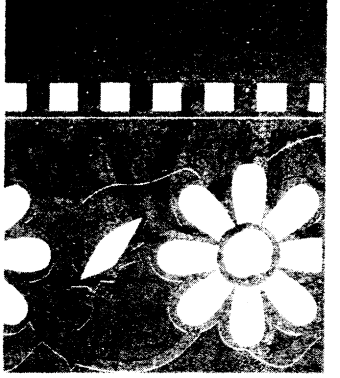

"I've always been interested in fundamental things within science," he said. "I wanted a little bit more of a challenge so I did my Ph.D. at Columbia University in Biophysics."

After graduating from Columbia, Shah spent two years there as a research associate before moving on to a one-year term as a research associate with NASA at the Ames Research Center. He then returned to Columbia and spent two years working as a research associate at the Surface Chemistry Laboratory.

It was shortly after earning his Ph.D. that Shah met his future wife, Suvarna, with whom he celebrated 25 years of wedded bliss this April. The two began inviting each other to meet their separate friends and families, Shah said.

"In that way, without falling in love yet, logically, we tried to figure out if we were right for each other," he said. "Once we found out we were right for each other, we sent messages through intermediaries to find out if the other party would find you acceptable. When that happened, we formally approached each other and I proposed."

The couple has two children: Bijal, 23, a fourth-year medical student at UF, and Prerak, 21, a second-year medical student at UF.

"In India, we have a saying that everybody makes three important choices in their lives: teacher, spouse and employer, in that order," Shah said. "I consider myself lucky that I made all three choices right."

While working in Columbia's Surface Chemistry Laboratory, Shah began looking for a permanent place to live and a new employer he could stay with for a long time.

"My younger brother is a chemical engineer," Shah said. "He told me with my training in applying surface science to various engineering and biomedical problems that I would fit well in a chemical engineering department.

"I found this job very attractive, even over the other job offers I had, because I thought this would give me greater freedom," he said. "I like the freedom of being an academician and deciding my own goals."

Shah rose steadily through the ranks to become chairman of the Chemical Engineering department for four years, from 1987-91. Along the way, Shah received numerous teaching and research awards, including the UF Excellence in Teaching Award in 1972, the UF President's Scholar Award in 1975, the UF Outstanding Service Award in 1976, the UF Teacher/Scholar of the Year award for 1984-85, and the UF President's Medallion for Excellence in Teaching and Scholarship in 1985. In addition, Shah was named the Florida Scientist of the Year in 1988, received the Vishwa Gurjari 1992 International Award for Outstanding Achievement, received the Medalist Award from the Florida Academy of Sciences as the Distinguished Florida Scientist of 1993 and the Pride of India Award in July 1993.

Shah said a number of factors contribute to his academic success. "You must enjoy what you are doing with your full heart. After 23 years here, I'm still not tired of doing this research," he said. "You must be dedicated. Just ideas alone are not enough for success because you must do relentless work to bring your ideas into reality.

"For me, the interdisciplinary nature of my research has been very important. When there is more than one discipline involved in research it gives you a chance to look at a problem from different angles. That often brings out some very original and innovative ideas.

"Because of the interdisciplinary aspect of the University of Florida, I became a life-long student on the campus, which has these many colleges. If I want to learn any field, I can go to that college or seek a colleague's advise. I find that an extremely stimulating aspect of this campus."

Shah's wide-ranging intellect often crosses the border of science and into that of art, by writing songs and poems in his native language of Gujarati. The poems, which have been collected into a book, display a scientific bent in structure and content.

Every scientific event involves three processes; observation, formulation of a question and finding the answer. For example, one of Shah's poems, inspired by seeing a firefly, lists all the types of light he saw in nature, such as a falling star, moonlight, lightning, the sun, etc., by length of time it lasts. The poem then asks the question of why there is no light that lasts forever, then the question is answered by a voice from above: "Those lamps of humanity, which are lighted with the spark of love and compassion will shine forever."

"That poem is the observation, asking the question and finding the answer," Shah said. "If you were a scientist and you saw this poem, you would know it was written by a poet familiar with science. My science and my poetry often interact with each other. I look at my science with a poet's imagination and sometimes scientific observations are incorporated in my poetry."

Some of the science Shah is investigating includes the next generation of magnetic materials for computer disks, enzymatic reactions in microemulsions, transdermal drug delivery, an energy-efficient, environmentally friendly laundry detergent and a method of removing ink from copied paper.

"The University of Florida has rewarded me beyond my expectations," Shah said. "When I see all these awards and recognition that the university has bestowed on me, I feel good about it. But I'm not judging myself by that criteria. The only criteria I'm using is this: that someday in the future I'll retire and ask myself, did I contribute to the University of Florida's growth and prestige,? If I can answer yes, then I'll feel good about my career."

In thinking back on his career at UF so far, Shah uses his poetic bent and talks about an artist. An artist, Shah said, would not call a painting a success only if it sold for a lot of money.

"I do not determine the value of what I do by whether it has a market value. As long as I know it was something original and it reflects what I think, then there's the satisfaction," he said. "The pleasant surprise for me is that the things I did purely for my own enjoyment were things that other people enjoyed too, whether it was my science or my poems."

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