

Kishan Baheti – A Sagacious Friend

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I first met Kishan Baheti in the mid 1980's during one of my periodic visits to the General Electric Corporate Research and Development Center in Schenectady, New York, where he was employed as a control and systems engineering researcher. My immediate impressions were that he was a very friendly, enterprising, and energetic individual. We had many discussions on robust control, estimation and filtering, and their applications to GE technologies and products. He invited me to dinner at his home where I got to know his wife Padma and their children Sheela, Aparna, and Rajiv. It was the beginning of a friendship that grew ever closer over the last 35 years.

Kishan's most significant professional achievements and successes were during his long tenure as a program officer at the National Science Foundation (NSF). He was the greatest advocate for control and systems engineering at NSF. In this role, he supported several of my projects when I was at the University of Michigan. He was committed to expanding the scope and impact of control and systems engineering. As just one example, he was a great champion of our multidisciplinary research projects on control and estimation of semiconductor manufacturing processes at Michigan.

Kishan was a major proponent of combining research, curriculum development, and education of the next generation of engineers. He encouraged and supported the entire controls research community to embrace the educational opportunities and challenges as the field evolved over the last three decades. In my own work, his enthusiasm for such educational efforts led to the development of a novel multidisciplinary course that brought together students from controls and semiconductor processing in the late 90's. A decade later, he encouraged me to develop a course on the emerging field of smart electric grids from a cyber-physical systems perspective when I was at the University of Florida.

Kishan leveraged every possible opportunity at NSF to enable the control and systems research community to make contributions at the frontiers of knowledge creation and to address major societal challenges. He collaborated with program officers within his Division of Electrical, Communications, and Cyber Systems, other Divisions within the Engineering Directorate, various science and education Directorates, and other federal government agencies.

I had the good fortune to work with him closely from 2013-16 during my tenure as Assistant Director for the Engineering Directorate at NSF. I saw him directly in action as he worked with many colleagues to develop numerous new programs in renewable energy, smart grids, wireless communications, cyber-physical systems, and machine learning and data science to name a few. Without his creative energy and people skills, our community would have missed many of these opportunities.

Kishan cared very deeply for enabling success of junior researchers. He helped new assistant professors with their first grants. He helped them secure their CAREER awards. He put them on the path to successful long-term academic careers. It is no exaggeration to say that he was behind launching careers of many rising stars who are now established leaders of in our field.

Kishan was a great believer in international research collaborations. In his efforts to address renewable electric energy and smart grids, he collaborated with colleagues from Japan, Germany, and India to sponsor workshops that brought researchers from these nations with the US researchers to develop productive collaborations. These workshops led to new research projects, long-term visits, and joint publications.

These many professional accomplishments and impacts only capture a partial picture of Kishan Baheti. While he was a brilliant and successful professional, it is his personal qualities that made him a great human being and friend to many. He was kind-hearted and magnanimous. He had deep compassion for fellow human beings. He had a tremendous capacity to see the positive and good in each and every situation, no matter how difficult. He believed in others and helped them believe in themselves. He had that rare quality: wisdom. I experienced each and every one of these qualities over our long friendship. I am deeply grateful for what I received from him. I will miss him terribly but will cherish his memories.