

Editorial*

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Professor Narinder Singh Kapany, known as the father of fiber optics, is credited with several key contributions to this area. He was born in 1926 in Moga, Punjab, and completed his schooling in Dehradun before going to Agra for college education. He worked for his PhD at Imperial College, London, UK during 1952–1955. During this time, he developed a fiber-based imaging system. One of the later papers in this direction based on his work done at Rochester is presented as a classic in this issue (Kapany, Eyer, and Keim, 1957). This paper illustrates a very important characteristic of Kapany's career: a clear understanding of fundamentals, including basic mathematics and physics, focus on applications, and attention to detail. Imaging using fiber optics remained an area of interest to his group.

Kapany worked on many aspects of fiber optics, focusing on diverse applications including, fiber-based laser systems for treating retinal detachment. His papers described the principles and validation of the methods, and patents emphasized applications to real-life problems. He had over 120 patents to his name. He was an entrepreneur and an academic, seamlessly straddling the two worlds at a time when it was not common even in the west. He founded several companies starting with Optics Technology Inc. in 1960 and served on the boards of many companies. He was a Regents Professor at UC Santa Cruz and helped set up the Center for Innovation and Entrepreneurial Development (CIED) there. He was the founding director of this center. Kapany also set up two endowment chairs at UC Santa Cruz and helped set up book collections and study rooms through endowments.

Kapany had a keen interest in Sikh history, culture, and art. He set up the Sikh Foundation in 1967 and endowed a Chair of Sikh



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Studies at UC Santa Barbara in 1998. He donated his family's collection of Sikh art to the San Francisco Asian Art Museum and funded a gallery for the display of these items.

Kapany passed away on 03 December 2020, leaving behind a rich legacy. He was awarded *Padma Vibhushan* posthumously in 2021.

We have one article by Rajesh N. Nair and a classic to give an overview of Narinder Singh Kapany's life and work. This issue has many other articles on diverse topics: Jyotirmoy Sarkar writes about super odd-sum labeling of a cube, Kartik Chhajed introduces topological phase transitions, we learn about binding energy of nuclei in the review of semi-empirical mass formula by Sagnik Mondal and Pintu Mandal, Harshada Vidwans and co-authors write about the perception of risk, we learn about the controversy on position reversal of four element pairs in the periodic table by Rajarshi Ghosh, zebrafish as a model organism is introduced in an article by Padmshree Mudgal and co-authors. In the classroom section, Triloki Nath presents an elementary proof of the power rule of differentiation, while Rajib Mukherjee and Manishita Chakraborty provides a note on infinite continued fractions.

