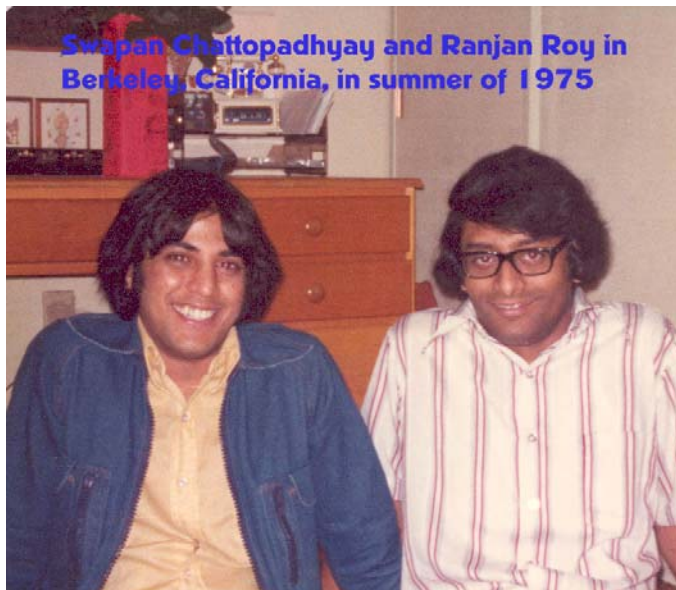


# Tribute to Ranjan Roy

*Ranjan Roy was born in Calcutta, India of a cultured Rabindric family of modest means. He lost his father at an early age and grew up with his mother. After completing higher secondary certificate studies from Hindu School in 1964, he joined St. Xavier's College, Calcutta, India and passed his B.Sc. with Honors in Physics and was placed in the First Class. At St. Xavier's College, Ranjan was a batch mate of the former JBNSTS scholar Amitananda Das. Following completion of his undergraduate studies, and while in the post-graduate program at Science College of Calcutta University, he was selected for an interview with the then visiting delegation of the Physics Interviewing Committee of the American Physical Society, headed by renowned nuclear physicist Prof. Michael Moravcsik of University of Oregon and Nobel laureate Prof. Nicolas Bloembergen of Harvard University. Detecting Ranjan's obvious talents in Physics, they immediately recommended and arranged a teaching fellowship for him in the Department of Physics at the University of Oregon in Eugene, Oregon towards a Ph. D. degree in Physics starting fall of 1970.*



**Swapan Chattopadhyay and Ranjan Roy in Berkeley, California, in summer of 1975**

*At Eugene, Oregon, Ranjan was the most popular student in the Physics Department as well as in the community, including the International Students Association and the Indian Students Association, of which he was the Chair for many years. He started working in solid state physics with Prof. Gerry Mahan, who left for Indiana University in Bloomington in 1973. Ranjan took leave from University of Oregon to join Dr. Mahan. However he returned within a couple of years to join Prof. Wannier (famous for Wannier Functions in solid state physics) and finished his Ph. D. thesis in 1978 on nonlinear dynamics of mode localization and solitons on surfaces of solids. He had made extensive use of computer modeling and simulations for his doctoral thesis work.*

*Ranjan could have continued in the US with post-doctoral work at well known universities. However he chose to return to India, Calcutta in particular, and accepted the offer of a junior lecturer position at St. Xavier's College, Calcutta starting Fall of 1978. There Ranjan devoted a significant amount of effort in modernizing the college undergraduate curriculum working with the faculty and initiated the undergraduate computer laboratory at the college – the first state-of-the-art computer lab in an undergraduate college in Calcutta. Simultaneously he continued interacting with the S.N.Bose Center and had serious technical/scientific collaboration with Prof. Chanchal Mazumdar. Over time he rose to the rank of a professor at St. Xavier's College by 2001, when he had the fatal stroke in late 2001 that took his life unexpectedly.*

*Ranjan is survived by his wife Shukla Roy, also a professor of St. Xavier's College, his daughter Mohana and his son Prayag. Mohana just joined the graduate school in Chemistry/Biochemistry at the*

*University of Wisconsin at Madison, US in the fall of 2005 and Prayag is ready to graduate from High School.*

*Collaboration with Swapan Chattopadhyay started in 1972, when Swapan was also selected by the American Physical Society's Physics Interviewing Committee to join University of Oregon's Physics Department, two years later. Swapan had heard of Ranjan in college from Amitananda Das who had also known Swapan from Ballygunge Government High School. The two – Ranjan and Swapan – started a lifelong friendship and collaboration as soon as Swapan arrived at the airport in the US on September 9, 1972. The two shared a great interest in physics research, of course, but more importantly in teaching physics. They shared their love of poetry and discussed many a poems by contemporary poets including those by Bishnu De (a distant relative of Ranjan's). They shared their love of the performing arts as well as native folk art such as batik painting etc. In the summer of 1973, the two went on a long cross-country trip with Ranjan's newly acquired car (a yellow 1965 Plymouth Valiant) to the Olympic Peninsula in the Washington State, to University of Washington in Seattle and to Portland Oregon, with plenty of back country hiking. While Swapan left in 1974 for Berkeley to complete his Ph. D., the two kept in contact and in 1975, Ranjan visited Swapan at the University of California in Berkeley (pictured above) with his colleague Douglas Hofstadter (son of Nobel laureate Robert Hofstadter of Stanford University and now a professor at Indiana University in Bloomington). In 1978, the two consulted about his future career, and Ranjan's ideals in holding teaching as the noblest profession led him to sacrifice research and choose a teaching profession in India instead.*

*With the knowledge of Ranjan's training and talents as a scientist, he was encouraged to apply for a Fulbright Scholarship in 1996-1997. During this time he visited Michigan State University at East Lansing for two semesters doing condensed matter physics research and spent the entire summer with his family in Berkeley, where he was appointed a Distinguished Visiting Fellow in the Center for Beam Physics at Berkeley Lab, under the direction of Swapan. Ranjan, with the assistance of two bright high school seniors about to join college (one joined Stanford and one Berkeley following their apprenticeship with Ranjan), generated the first scientific web-folio titled 'The World of Beams' which was selected by the US Department of Energy for their public website for many years in 1990s.*

*In March 2001, Swapan Chattopadhyay, after 25 years of service to the University of California and Lawrence Berkeley National Laboratory as Director of the Center for Beam Physics moved to Virginia to take up the position of Associate Laboratory Director of Thomas Jefferson National Laboratory, and was just beginning to collaborate with Ranjan in late summer to initiate and create a curriculum of interdisciplinary physics/applied science/scientific computing program between St. Xavier's College, Presidency College, S.N.Bose Center for Basic Sciences and Indian Association of Cultivation of Science, when the momentum was abruptly lost with Ranjan's death.*

*With Ranjan's passing, India -- Calcutta in particular, but most importantly the community of scientists globally had lost a dedicated teacher, scientist and humanist with the highest sense of service to humanity. The SwaRanjan Scholarship, established as part of the Jagadis Bose National Science Talent Scholarship (JBNSTS) scheme by his lifelong colleague Swapan Chattopadhyay in loving memory of their friendship and in tribute to Prof./Dr. Ranjan Roy's contributions to pedagogy and scientific literacy in India, is to be awarded annually for perpetuity to an outstanding young scholar, selected by the JBNSTS selection Board, who elects to pursue higher studies in the field of Physics primarily, with emphasis on computational and multidisciplinary physics whenever feasible. Once the selected scholar, upon maintaining academic records in good standing, has been continuously supported through the Bachelor's and Master's programs, it will be offered to another outstanding scholar for the next period. May each and every one of the future SwaRanjan scholars read the history and foundation of this scholarship, including this tribute to Ranjan to appreciate the value of the award.*