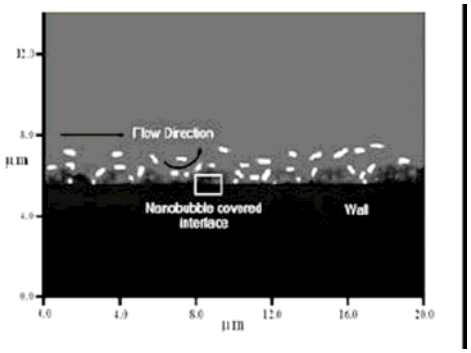
Prof. Suman Chakraborty, Mechanical Engineering Department, IIT Kharagpur, has been awarded the prestigious Swarnajayanti fellowship award by the Department of Science and Technology, Govt. of India, as recognition to his Internationally-acclaimed groundbreaking contributions on different theoretical and experimental facets of fluid mechanics, especially related to microfluidics and nanofluidics. He has been one amongst the youngest researchers to bag this highly-acclaimed award. His scientific innovations have revealed that a rough surface may actually help in transmitting a fluid, instead of creating additional resistances. Thus, contrary to common intuition, 'tuned' rough surfaces may aid fluid flow in a much more prolific manner than relatively smoother surfaces, under appropriately designed conditions. In particular, his discovery of 'super-fluidity' with regard to water transport in microchannels and nanochannels, by virtue of which water in rough fluidic pathways may flow much faster than on smooth surfaces, has been considered to be seminal, as evidenced through a series of pioneering papers published by him on related topics in top level International Journals such as the Physical Review Letters and Applied Physics Letters. The contributions of Chakraborty, thus, have apparently redefined the theoretical and experimental understanding of the non-intuitive and paradoxical nature of fluid dynamic interactions in confined geometries. With the aid of his fundamental scientific discoveries, Prof. Chakraborty has designed new generation devices for blood glucose monitoring and insulin delivery, non-mechanical valves for controlling fluid motion with the aid of light, CD-based microfluidic systems, and many other fascinating miniaturized devices. His contributions are aptly reflected in more than 100 International Journal papers, as well as the Chapters from the first Encyclopedia of Microfluidics and Nanofluidics, which have been authored by him, along with the patents from his technological innovations.



The Swarnajayanti Award (open to Indian nationals living in both India and abroad), which Prof. Chakraborty has received, encompasses a special monthly fellowship, along with virtually unrestricted financial grants for costly equipment, computational and communication facilities, consumables, contingencies, administrative support, national and international travel and other special requirements for doing research in globally-acknowledged cutting edge areas of science and technology. As a procedure, selection for this award is made on the basis of proven track records pertaining to innovative and original research of exceptionally high quality in frontier areas of science and technology, as adjudged by a panel of peers at various stages. An empowered committee makes the final selection based on the recommendation of expert committees. Scientists selected for the award are allowed to pursue unfettered research with a freedom and flexibility in terms of expenditure as approved in the research plan. The Swarnajayanti Fellowship Award, thus, is amongst the most prestigious awards given by the Govt. of India in acknowledgement of achievements in innovative scientific research, and, along with the Bhatnagar Award, is usually considered as the Oscar of Indian Science.