

Nano Science and Technology Program

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Introduction

Nanoscience and technology deals with physical phenomena occurring on the nanometer scale. The advent of nanoscience dates back to the historic seminar, "There is a plenty of room at the bottom", given by Nobel prize winner Prof. Feynman given at American Physical Society Meeting in 1959. In this speech, he predicted that all the contents of the Encyclopedia Britannica could be written at the tip of the needle someday. Although this prediction was a mere hopeful assumption at the time, things become truthfully realistic after the invention of Scanning Tunneling Microscope and researches on nanoscale has begun to gain ever increasing momentum. Today's nanotechnology enables us the control and creation of novel nanoscale material structures beyond the scope of simple miniaturization.

Interdisciplinary nanoscience and technology is considered to be the core technology of the future with widespread impact on industry. Therefore, major developed countries competitively pour huge amounts of money into this strategic area. in line with this trend, the Korean government selected the nanoscience and technology as one of the national strategic core technologies in July 2001.

Novel theoretical platforms beyond the conventional approach are required to unveil the new phenomena continuously happening in the nanoscale science. Hence, any standard model for industrial transformation is yet to be concluded and interdisciplinary efforts toward this goal has important meaning.

To meet and study interdisciplinary natures of Nanoscience and technology, professors from various disciplines such as physics, chemistry, bioscience, electrical engineering, mechanical engineering, biosystems, biochemical engineering, nuclear and quantum engineering, materials science, are invited to participate in the program.