PERSPECTIVES IN NANO TECHNOLOGY EDUCATION IN TERMS OF ENGINEERING POINT OF VIEW

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ABSTRACT

A focus will be made on the basic principles regarding the nano technology education in Korea. In principle, we believe that in the 21st century, fundamental building blocks in science and technology consist of information technology, cognitive science, bio technology and nano technology. A careful curriculum will be devised to make a close connection of nano technology to information technology, cognitive science and bio technology for the fusion human resource development.

In Korea, we are the world best competitive in IT technology. DRAM, Nand flash memory, TFT-LCD and PDP have accomplished the biggest market share in world wide market. The minimum line width in Semiconductor technology is already in the nano regime. We, hence, will educate and implement nano technology to continue to provide the best and brightest nano scientists to the IT industry.

Recently, top 10 new items for the next generation of the post semiconductor era were announced, which include next generation display, semiconductor, fuel cell, bio chip and intelligent automobile. A quality and quantity of nano engineers will be needed to make these projects successful. Our engineering schools enforce nano technology education according to the Human Resources Development Plan for National Strategic Fields of IT, BT, ET, CT, NT and ET.

A plan for the continuous quality improvement for nano education according to Accreditation Board for Engineering Education in Korea will be discussed. In addition, double core and two track engineering education system will be addressed.