



**SAN FRANCISCO BAY AREA
NANOTECHNOLOGY COUNCIL**

June 16, 2009 Seminar

Subject:

Nano-Solar cells: Solar Cells of the Future with Nanotechnology

Speaker:

**Dr. Jeongwon Park,
Applied Materials**

Date: Tuesday, June 16, 2009

Time: Registration & light lunch 11:30am. Presentation & Q/A 12:00 to 1pm

Location: National Semiconductor Bldg E-1 CMA Room. 2900 Semiconductor Drive, Santa Clara, CA

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%2C+ca&btnG=Google+Search](http://www.google.com/search?hl=en&q=2900+Semiconductor+Drive.+santa+clara+%2C+ca&btnG=Google+Search)

Cost: IEEE Members and Students \$5. Non-Members \$10

Please RSVP at our web site: www.ieee.org/nano

Talk Abstract:

This seminar will introduce you to current solar cell technologies that are based on nanotechnology. In particular, traditional silicon-based solar cells are described and compared with more current nanocrystalline solar cells. Four types of nanotechnology based solar cells will be discussed. These include: Nano-crystalline TiO₂ Dye-Sensitized Solar-Cells, Quantum dot solar cells, Nanowire solar cells, and Hybrid cells. Who may commercialize these, by when, and what major problems stand in the way will also be discussed.

Speaker Biography:

Jeongwon Park received his B.E. degree in Metallurgical Engineering from Dong-A University in 1997, M.S. degree in Metallurgical Engineering from Hanyang University, South Korea in 1999 and Ph.D. from University of California, San Diego in the Materials Science and Engineering Program in 2008. Since 2008, he has been with Applied Materials where he currently is doing research on epitaxial growth in the Front End Product Group. He has been a guest researcher at Lawrence Berkeley National Labs(LBNL), and Sun Microsystems, in addition to his work at UCSD, Hanyang University, Institute for Advanced Engineering, and Seoul National University in Korea. He taught a Graduate Engineering Seminar Series at the Santa Clara University. He has published more than twenty papers.