

## Nanoelectronics Professor Kaustav Banerjee Awarded Prestigious Japanese Research Fellowship



[Kaustav Banerjee](#), professor of electrical and computer engineering at UC Santa Barbara, and Director of the [Nanoelectronics Research Lab](#), is spending the winter quarter of 2014 in Japan on an Invitation Fellowship of the Japan Society for the Promotion of Science.

Banerjee and his research group are internationally recognized for their contributions in nanoelectronics. "Our current focus is on the use of low-dimensional materials such as graphene and other two-dimensional crystals to design high-performance, energy-efficient "green" electronics," explained Banerjee. "This prestigious fellowship with JSPS recognizes and supports our research in nanoelectronics, particularly in the area of 2D crystals."

These atomically-thin materials could potentially revolutionize a number of scientific fields and also open new pathways in nanoelectronics, photonics and bioelectronics. Banerjee's pioneering efforts in low power integrated circuits using key advances in nanomaterials, nano-devices and circuits, and design methods have played a role in steering the semiconductor industry's research and development efforts.

The short-term JSPS Invitation Fellowship for research in Japan is aimed at promoting international scientific exchange while advancing research in the subject field. The Japan Society for the Promotion of Science created the program to honor and attract renowned researchers to Japan for cooperative projects. It allows researchers in Japan to invite eminent colleagues from other countries to Japan to participate in discussions, attend seminars, give lectures, or perform similar functions at their universities and research institutes.

Banerjee has received international recognition for a number of achievements in the recent past. He was the recipient of the Bessel Prize from the Humboldt Foundation in Germany and in 2012 was named a Fellow of IEEE.

The [Japan Society for the Promotion of Science](#) (JSPS) was established in 1932 with the purpose of contributing to the advancement of science in all fields. JSPS plays a pivotal role in the administration of a wide spectrum of Japan's scientific and academic programs. JSPS is funded by the Japanese government and has a budget in excess of ¥340 billion (or \$3.4 billion) distributed across a range of different programmes. Banerjee was nominated by Japanese scientist Shunri Oda, a professor at the Quantum Nanoelectronics Research Center, at the Tokyo Institute of Technology. The JSPS Fellow network boasts numerous eminent scientists, including many Nobel Prize winners, among its ranks.

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