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[\[Nanotechnology\]\[Energy\] Taiwan Research Team Makes Breakthrough in Nano Energy Research](#)

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CNA - Focus Taiwan (2012/07/04) A new type of nanotechnology developed by a research team at National Tsing Hua University (NTHU) makes it possible to produce electricity by storing energy created by movement, the university said Wednesday.

The research project was based on the dissertation of a doctoral student Chih-yen CHEN, with supervision by Li-jen CHOU, Professor at the university's Department of Materials Science and Engineering.

CHEN's research represents a major breakthrough in nano electricity, as it enables tiny generators to collect and store kinetic energy in batteries that can power light-emitting diodes (LEDs), the university said.

The nanogenerator concept was first proposed by a leading nanowire technology research team led by Zhong Lin WANG, Professor at Georgia Institute of Technology School of Materials Science and Engineering in the United States, NTHU said.

During an academic exchange at Georgia Tech last year, CHEN made a nanogenerator of Gallium Nitride Nanowires and linked it to an LED, the Taiwan university said.

Nano electricity is unaffected by gravity and can create a self-sustaining electricity system by receiving energy from the natural environment, according to CHEN.

CHEN said he hopes to apply the concept to generate electricity from clothing during normal movements by the wearer and to work on other projects to help solve the world's energy crisis.

CHEN's research paper made the June cover of the international scientific journal ACS Nano and was published on its website May 18.

Reference:

[CNA - Focus Taiwan 2012/07/04](#)

[National Science Council International Cooperation Sci-Tech Newsbrief](#)
