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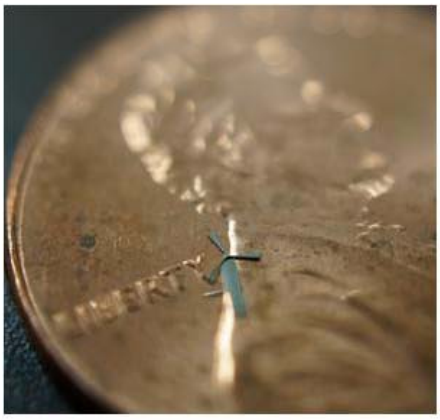
Micro-Windmills To Recharge Cell Phones

January 16, 2014 | Posted by Alain

An *University of Texas* (**UT Arlington**) research associate and electrical engineering professor have designed a **micro-windmill** that **generates wind energy** and may become an innovative solution to **cell phone batteries** constantly in need of **recharging** and **home energy generation** where large **windmills** are not preferred. Smitha Rao and J.-C. Chiao designed and built the device that is about **1.8 mm** at its widest point. A **single grain of rice** could hold about **10 of these tiny windmills**. **Hundreds of the windmills** could be **embedded** in a **sleeve** for a **cell phone. Wind**, created by **waving the cell phone in air** or holding it up to an **open window on a windy day**, would **generate the electricity** that could be collected by the **cell phone's battery**.

Rao's works in **micro-robotic** devices initially heightened a Taiwanese company's interest in having Rao and Chiao brainstorm over novel device designs and applications for the company's unique fabrication techniques, which are known in the semiconductor industry for their reliability.



One of Rao's micro-windmills is placed here on a penny

"*The company was quite surprised with the micro-windmill idea when we showed the demo video of working devices,*" Rao said. "*It was something completely out of the blue for them and their investors.*" "*The micro-windmills work well because the* ***metal alloy*** *is* ***flexible*** *and Smitha's* ***design follows minimalism*** *for functionality*." Chiao said.

Source; http://www.uta.edu/

AND

http://www.winmemstech.com/

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