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NEWS CENTER

News Excerpt: Micro-windmills could charge cell phones



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Monday, February 24, 2014



World Journal.com

Dependence of modern phone or tablet to pass the time, but often look to see movies, play games, take pictures slide stop, a few hours fingertips "electricity emergency", then the charging unit has become an indispensable tool.

Recently, the University of Texas at Arlington (The University of Texas at Arlington) researchers have developed a mini wind turbines (Minuscule Windmills), the fan width of less than two millimeters on the installation of hundreds of phone sheath mini wind turbines , waving the phone to generate wind power, away from home, you can easily phone is fully charged.

At present, this technology has been steady Silver Technology Co., Ltd. Taiwan (WinMEMS Technologies) to obtain exclusive marketing rights. To solve the problems of modern power seeking action, a professor at the University of Texas at Arlington Joe Eiji (JC Chiao) and Smitha Rao led the team developed compact wind turbine, nickel alloy, with aerodynamic design principles, struck down in strong winds also prone to breaking. In addition to the manual waving generate electricity, it can also come to the phone on the windward window, front fan power easily.

In 1988, Joe graduated from the National Taiwan University Department of Electrical Engineering Eiji, 1995 doctorate at the California Institute of Technology, fate settled in Texas, open academic research career, currently serving as advisor, Professor of Electrical Engineering, University of Texas at Arlington and biological engineering graduate student , but also the University of Texas Southwestern Medical Center, Visiting Associate Professor department. Joe Eiji said the research team has been working for decades micro-electromechanical systems (MEMS) research to the windmill concept generation, devices on the tiny chip, generating wind kinetic energy. But part of the MEMS chip in the material is too fragile, under strong winds likely to cause broken windmill blades. He said after the team constantly repeated trials, only to distort easily broken by external and quite durable nickel alloy production, open opportunity mini wind turbines.

He explained easily affect large wind noise, or bring ecological concerns, the future trend of miniaturization. Mini windmill generator set and the general principle is similar, the only difference is that the wind turbine is used in the body forward oncoming wind, and therefore, "planar" need windmill design perspective, and the small size, space for in tablet or other handheld electronic devices, and even homes, buildings or piers can be installed for tablet contains thousands of power generation, lighting or security devices and wireless communications equipment.

In his view, a mini wind turbine body representing the dominant power of action, in addition to the use of more environmentally-friendly renewable energy concept, not only save energy, but can be further converted into kinetic energy, "If you can make the best of the invention not only provide electricity, but also to transfer When the electricity consumed electricity minimize efficiency multiplier. "

Currently the University of Texas at Arlington has applied for a provisional patent, Taiwan stable silver technology in 2013 between representatives several times to contact negotiations, both sides reached an agreement, the school may retain the intellectual property rights , steady silver is achieved commercial application opportunities.

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Susan Cherry, clinical instructor for the UT Arlington College of Nursing, teaches the public health course that is required of all nursing graduates. As another season of West Nile virus cases approaches, Susan can talk about proper prevention techniques and what health care workers are expecting.

→ [All Experts](#)

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