Singapore Scientists Developed a Low-Cost Device That Can Harness Energy From the Wind

April Fowell, Tech Times | 07 October 2022, 05:10 am

NTU Singapore scientists have developed the wind harvester, a low-cost device that can harness energy from wind. It can harness energy from wind as gentle as a light breeze and store it as electricity.

(Photo : INA FASSBENDER/AFP via Getty Images)
This picture taken on October 5, 2022 shows wind turbines and power pylons near Neurath, western Germany. - German energy provider RWE brought forward its exit from coal power to 2030 on October 4, 2022 amid fears the country's plans to abandon fossil fuels are wobbling following the energy crisis caused by Russia's war in Ukraine.

When exposed to wind with even with a velocity as low as two meters per second, it can produce a voltage of three volts and generate electricity power of up to 290 microwatts. This is enough to power a commercial sensor device and for it to send the data to a mobile phone or computer.

The wind harvester can also divert any electricity that is not in use to a battery, where it can be stored to power devices in the absence of wind. According to the scientists, the device has the potential to replace batteries in powering LED lights and structuring health monitoring sensors.

It's So Small!

urban environments where the average wind speeds are less than 2.5 m/s outside of thunderstorms.

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The Rise of Wind Energy

Wind energy is a renewable energy source that is abundant, clean and free of carbon emissions, making it a great alternative to fossil fuels. The main obstacle to the adoption of wind energy is the cost of setting up the wind turbines.

By leveraging on science and technology to improve the generation of electricity from wind, it is hoped that we will be able to harness this renewable energy source to our advantage.

So, if one day, you own a wind harvester and you are not using it to feed electricity to your home appliances, you can use it to charge your mobile phone. And if you do not have any electricity to spare, you can simply use the wind harvester to power your mobile, so that you can never get caught with a dead battery again, especially during emergencies.

The wind harvester is lightweight, compact, and portable. It's one of the most affordable energy solutions that can be implemented in any environment.

With the power of wind energy, we can drastically lessen our dependence on fossil fuels. Moreover, the technology can be beneficial to developing countries where there is limited access to power. By harnessing the power of the wind, it helps improve the quality of life for everyone. Along with this, it reduces the impact on the environment.

Scientists at NTU hope that their wind harvester will lead to the development of more advanced wind-sensing technologies with various applications.

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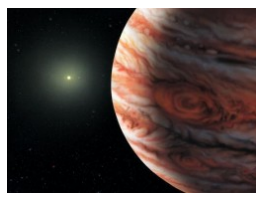
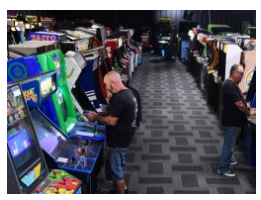
2. 
3. 
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