

Video: Solar power from energy-harvesting trees

16 February 2015, by Olli Ernvall

Scientists at VTT have developed a prototype of a tree that harvests solar energy from its surroundings - whether indoors or outdoors - stores it and turns it into electricity to power small devices such as mobile phones, humidifiers, thermometers and LED light bulbs. The technology can also be used to harvest kinetic energy from the environment.

The "leaves" of the tree are flexible, patterned solar panels made using a technique developed by VTT on a printing process. The leaves form an electronic system complete with wiring that conduct energy into a converter that feeds electricity to devices such as mobile phones or sensors analysing the environment.

The tree trunk is made with 3D technology by exploiting wood-based biomaterials VTT has developed.

VTT's technologies create endless opportunities for applications involving different kinds of electronics regarding lighting and energy harvesting, for example.

The more [solar panels](#) there are in a tree, the more energy it can harvest.

Provided by VTT Technical Research Centre of Finland

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