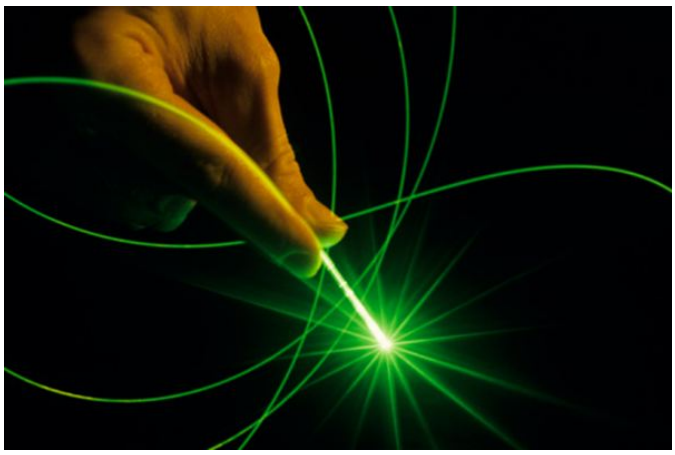
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Researchers at Taiwan's National Taipei University of Technology create a Visible Light Communication (VLC) system pushing data faster than wifi-- using regular red and green laser pointers.



The laser-based system achieves speeds of 500Mbps with a single link and 1Gbps using a multiplexed signal from 2 pointers, with a signal range of 10m.

Lasers have an advantage over VLC systems using LEDs-- very low error rates. With the use of a preamplifier and filter, error rates reach around 1bit in 1 billion. Without pre-amp and filters, error rates reach those of traditional wifi (1 in 100000).

Bluetooth also has a 10m range... and an error rate of 1 bit in 1000.

Being directional, lasers also make secure communications easier.

The researchers say their system is also fairly cheap to make-- a demo unit costs around $600 to make.

VLC-based systems have disadvantages (signals cannot pass through most physical barriers) but do not interfere with other communications systems, making them attractive for use in sensitive environments such as hospitals, aircraft and government offices.

Go [10m/500Mbps WDM Visible Light Communications System]