

Li-Fi: Inventor hailed for light bulb wi-fi

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A University of Edinburgh engineer has been named among the top inventors in the world in high-profile publications.

Both TIME and the Huffington Post's reviews of the world's best new technologies have featured Professor Harald Haas' system of wirelessly transmitting an internet signal through LED light bulbs.

Professor Haas' team has taken advantage of the fact that LED lights may be switched on and off many times per second, to develop their technique, known as Li-Fi.

The system uses electronics to harness the variable light intensity in the bulbs to transmit data wirelessly.

TIME magazine described Professor Haas' idea as among the top 50 inventions of the year. The magazine said: 'Like many other great [inventors](#), Haas developed a solution [to carrying increasing amounts of data] using things we have in abundance: chiefly the world's 14 billion light bulbs.'

In an article in the Huffington Post, Li-Fi was listed among 18 groundbreaking ideas to watch in 2012. Professor Haas was invited to contribute a blog entry for the Post's website.

Li-Fi was developed as an alternative to carrying data on radio frequencies, which are becoming increasingly crowded with the growth in smartphone and tablet PC use.

The system has unique advantages in that it can be used in areas where radio frequency is not desirable.

This includes hospitals, or where radio frequency simply cannot be used, such as underwater.

The system also benefits from an existing lighting infrastructure and therefore does not require huge investments.

It also offers greater security by keeping the internet signal inside the room in which the light is being used.

The University has spun-out a company, VLC, to commercialise the idea.

"We are heading to saturation point in terms of how efficiently we can use the [radio frequency](#) spectrum. The only way out of this is to find new ways to transmit data wirelessly." said Professor Harald Haas.

Provided by University of Edinburgh

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