



THE UNIVERSITY *of* EDINBURGH

News Release

Issued: Thursday 10 April 2014

Solar-powered internet access set to broaden reach of web

Internet access fuelled by the power of the sun could soon be a possibility, an audience at the Edinburgh International Science Festival will hear.

Researchers at the University of Edinburgh have developed technology that enables solar panels to detect broadband signals, allowing data to be transmitted on the world wide web using daylight.

In addition, solar energy can be used to power such a device, as well as detect and carry data. The two technologies combined could enable self-sufficient wireless communications in remote areas, in developing regions with no web infrastructure, or in emergency situations.

Prototypes of the system have reached transmission speed of about 7 Mbps, which is equivalent to maximum speeds in conventional wireless networks.

The research builds on the Edinburgh team's pioneering Li-Fi technology, which enables data to be transmitted over the internet using LED light bulbs.

Telecommunications pioneer Professor Harald Haas will explain the latest developments in his research when he gives the Tam Dalyell prize lecture at the Edinburgh International Science Festival. His talk takes place at 6pm this Sunday (13 April) at the Playfair Library in the University's Old College.

This University of Edinburgh annual prize recognises an individual or group for their public engagement work such as hosting school visits, talks and other public events or through publishing and broadcasting. The award, open to all University of Edinburgh staff, comprises a medal and a grant of £500 for science communication activity.

Former MP Tam Dalyell is a keen science communicator and wrote a weekly column for New Scientist magazine from 1967 to 2005. He is a former rector of the University.

Professor Haas said: "Solar-powered li-fi could make internet access available in far-flung places, and opens up all sorts of possibilities for widespread wireless communications. I look forward to sharing the latest developments in this technology at the Science Festival."

For further information, please contact:

Catriona Kelly, Press and PR Office, tel 0131 651 4401, email Catriona.Kelly@ed.ac.uk

Ranked among the top universities in the world