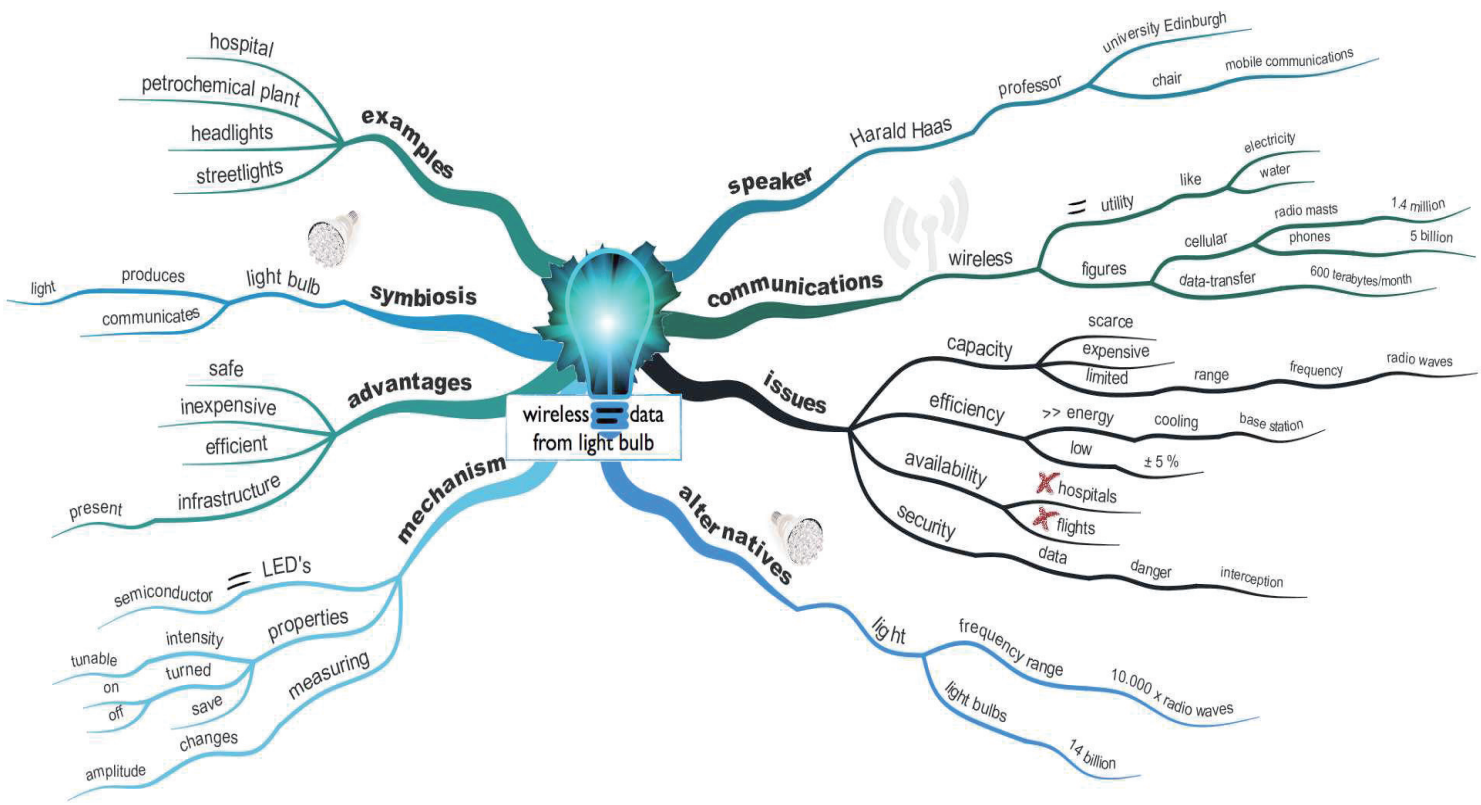


Lifi Successfully Tested in Fudan

By Fu Dan

People can surf the internet without WIFI as long as they have an LED lamp. On October 17, School of Information Science & Technology of Fudan University released the news that their test of Lifi which is an internationally advanced communication technology by transmitting internet signals with visual light indoors became successful in their laboratory. When the researchers connected the internet signal with one 1W LED bulb, four computers can surf the internet under the light. The highest rate was 3.25G while the average surfing rate was 150M, which could win it the crown of the “world’s fastest Lifi”. Ten such demo computers will be demonstrated at 2013 China International Industry Fair to be held in Shanghai next month.

Lifi is a way of communication through visual light. Wireless communication signal transmission devices have many limitations at the moment. They are rare, expensive but not efficient enough. Take cell phones for example. There are millions of base stations set up around the globe to help enhance the signals, with only 5% of the energy utilized because most of the energy is consumed by cooling. As a comparison, there are billions of bulbs being used in the world. In China in particular, LED light sources are massively replacing traditional incandescent lamps. By putting a micro-chip into any LED lamp, it can become a wireless emitter.



Since last year, Shanghai Science & Technology Commission started to launch the research project in universities and research institutions of the city, with Professor Chi Nan as the head of this project. Shanghai Broadband Center, Fudan University and Shanghai Institute of Technical Physics of the Chinese Academy of Sciences joined their efforts in this key technology research and appli-

cation which has made milestone progress. Researchers cannot only use visual light to transmit internet signals in the laboratory but also achieve success in driving four computers with one small lamp. With only one lamp, these four computers can surf the internet and transmit internet signals among one another. Compared with existing WiFi, Lifi is safer and more economic. WiFi

relies on invisible wireless radio wave for transmission. The bigger the power of the equipment, the stronger the electromagnetic radiation will be. Wireless signals can penetrate the walls and the information is not safe. Lifi is immune to all these risks. Additionally, light spectrum is 10,000 times that of radio wave, which means bigger band width and faster speed. The setup of internet almost

requires no new infrastructure at all. As learned, Lifi has its own limitations as well. “Researchers have to manually control a series of key technological products from light communication control to chip design and manufacturing. There is no commercialized chip set at present. There is still a long way to go before Lifi is industrialized and widely used by ordinary people,” said Chi Nan.

Tongji Launches “the Most Luxury Course”

By Zong He

It is not rare for a famous professor to give classes for undergraduates. How about by seven academicians? Tongji University has attracted seven academicians to relay one another teaching freshmen “Introduction to Geodetics” fortnightly. Many students call such a high level educational collaboration and innovation “the most luxury course”. In Classroom 1002 in the Multiple Function Building of Tongji University, more than 150 students were listening to the class attentively. Ning Jinsheng, academican of Chinese Academy of Engineering was talking from how he himself was connected with geodetics to the history and general conceptions of this subject. Ning’s class won himself repeated applauds. Xia Menglian is a freshman enrolled in 2013. She said she will spend much time to well digest what Mr. Ning has said in class and is looking forward to the next “master” to the next class. Ning, aged 82, was mostly impressed by the Question & Answer session of the class. He didn’t expect the freshmen would be so eager to know about how to get employed after graduation. To this question, Ning gave a clever answer: “The

course for this semester will answer you this question. If you learn well, you may create your new answer in the future.” Chen Junyong, academican from the National Administration of Surveying, Mapping and Geoinformation, will give the second class in two weeks time, talking about “Earth Surveying”. The course was given in Wuhan University over 20 years ago to explore collaboration in teaching. Four academicians and six professors from different academies and institutions joined their hands preparing the teaching materials. There are three more academicians joining the teaching team to make it a team of seven academicians. Besides Ning Jinsheng, there are Li Deren, Chen Junyong, Zhang Zuxun, Liu Jingnan, Gong Jianya and Li Jiancheng. Though they are very busy, they have been teaching the undergraduates. The teaching materials have been updated to the third edition so as to include the most leading edge knowledge. The course was appraised to be “National Classic Course” in 2007 and “National Classic Resource Sharing Course” in 2012. Tongjing has thus introduced this course as a compulsory course to the School of Mapping and Geoinformation and opened it all freshmen on its campus as well.

Inspectors from Society Rate Internet Bars

By Shao Ning

Talking about internet bars, people will easily associate them with such scenes: foul atmosphere and filthy air in small and crowded space, naive faces sunk behind the computers playing games day after night. However, when walking into a few internet bars in Yangpu District, the reporter saw completely different scenes: Spacious and bright space with reasonable zone separation; the bar at the entrance is just like that in a chain coffee shop; there is no smoke but coffee smell in the air. In W.Y.W.K, a chain internet bar on Pingliang Road near Linqing Road, the décor of the lobby which is more than 200 square meters is very bright and fashionable. The separation between computers is pretty wide while all the seats are comfortable sofa. There are paintings on the wall, green plants in the corners of the room. Some young people, wearing headsets, are surfing the internet quietly. The first impression is just like an office of white collar workers. In Red Apple, another internet bar in Hudong Workers Cultural Palace, the space is larger with a

lobby over 300 square meters. It is clean and in good order, without any smell of smoke. There are cameras installed on every corners of the ceiling. “Hi. Please show me your ID,” two middle-aged people wearing the badge of “Yangpu District Cultural Market Three-Level Joint Inspectors” were approaching one customer in the internet bar. The young man was very cooperative and took out his ID. “You were born in 1992. Ok. Thanks!” These two inspectors are volunteers from Daqiao Neighborhood Community. This internet bar is building itself into a model internet bar which rejects the underaged. The inspectors come to check frequently and give their rates according to the results. The rating is based on the sole standard and basic standard. If they find the internet bar allows the underaged to surf the internet, they will follow the sole standard, canceling the qualification of the bar to become a model bar with one vote. The basic standard includes five parts: business operation in accordance with the law, firefighting safety, fresh air, environmental sanitation, order and civilization which cover scores of items such

as obvious signals at the evacuation passages and exits, good ventilation, No Smoking sign put up at eye-catching places, regularly cleaning of the toilets, no strange smell in the toilets, regularly cleaning and sterilizing of keyboards and mice of computers. Total score is 100. To further transform the image of internet bars, Yangpu has launched the event of “building model internet bars that reject the underaged”, which has involved 19 of the total 72 internet bars as the first batch of participants in the district. Yangpu District Cultural Market Administrative Execution Brigade has involved social forces into this event and hired a number of people from society to be inspectors. After sufficient training, these inspectors will carry out daily inspections. They will report their findings to the brigade who will urge the internet bars to rectify their wrongdoings. Meanwhile, the youth protection department and related neighborhood communities will carry out education in schools, communities and families and persuade the minors staying away from the internet bars voluntarily.