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**ISO APPROVES THE AWARD WINNNING IEEE 802.22TM-2011 STANDARD TO PROVIDE BROADBAND CONNECTIVITY TO RURAL AND UNDERSERVED GLOBAL COMMUNITIES**

# PISCATAWAY, N.J., USA, XX Month 2015 – IEEE, the world's largest professional association advancing technology for humanity, today announced that the Emerging Technology Award Winning IEEE Std. 802.22-2011™ standard has been approved to become an ISO Standard. ISO (International Organization for Standardization) is an independent, non-governmental membership organization and the [world's largest developer of voluntary International Standards](http://www.iso.org/iso/home/standards.htm). ISO has [163 member countries](http://www.iso.org/iso/home/about/iso_members.htm)  with a [Central Secretariat](http://www.iso.org/iso/home/contact_iso.htm) that is based in Geneva, Switzerland. ISO and IEEE have a Partner Standard Development Organizations (PSDO) agreement.

“IEEE 802.22 standards based systems have a potential to provide broadband access to wide regional areas around the world to bring information and communication technologies to un-served and under-served communities. With this recognition of the IEEE 802.22 (Wi-FAR™) Standard from the ISO, it will allow IEEE 802.22 to be more widely recognized and adopted as a truly international standard,” said Apurva N. Mody, Chairman of the IEEE 802.22 Working Group.

IEEE 802.22 WG has developed a point-to-multipoint wireless broadband standard optimized for operation in the VHF and UHF TV bands, in the frequency range between 54 MHz and 862 MHz. The standard is especially useful for serving less densely populated areas (e.g., rural areas) where most empty TV channels can be found and where population is mostly unserved or underserved by Internet broadband access services.

“There are more than 3 Billion people in the world who do not have access to broadband internet access. It has been known that access to cost-effective broadband internet connectivity substantially increases the per capita household income in developing countries. Recognition from ISO of the IEEE Std. 802.22-2011 will help adoption of this standard from countries who could benefit from this technology,” said Chang-woo Pyo, Vice Chair of the IEEE 802.22 Working Group.

The IEEE Standard 802.22-2011 on Wireless Regional Area Networks (WRAN) takes advantage of the favorable propagation characteristics in the VHF and low UHF TV bands to provide broadband wireless access under Line of Sight (LoS) and Non Line of Sight (NLoS) conditions over a large area (10 km - 30 km), while operating on a strict non-interference basis in spectrum assigned to, but unused by, the incumbent licensed services also known as the Television Whitespaces (TVWS). Based on the regulatory domain and propagation characteristics, a single Wi-FAR Base Station can provide a coverage over 300 – 2700 sq. kms. New cognitive radio techniques such as WhiteSpace Databases and spectrum sensing enable 802.22-based systems to avoid interference to themselves and to other licensed services that exist in the same bands while making optimal use of the available spectrum.

Use cases for the IEEE 802.22 based devices include broadband access over large distances and Non Line of Sight conditions, broadband internet access for remote and rural areas, Internet of Things (IoT) Applications, cellular offload, monitoring of the rain-forests, long-range backhaul, smart grid and critical infrastructure monitoring, defense, homeland security, healthcare, small office home office (SoHo), campus-wide broadband wireless access and a variety of others.

The IEEE 802.22 Working Group is developing other technologies for Spectrum Sharing. These include the newly launched IEEE 802.22.3 Task Group on Spectrum Characterization and Occupancy Sensing, as well as the IEEE 802.22.1 Task Group that is developing technologies for sharing spectrum between high power radars and communications systems.

Additional information on the standard can be found at the [IEEE 802.22 WG](http://www.ieee802.org/22/) page. To purchase the standard, visit the [IEEE Standards Store](http://standards.ieee.org/store).

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