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**IEEE AUTHORIZES REVISION PROJECT TO ADD ADVANCED BEACONING CAPABILITIES TO THE IEEE 802.22.1TM-2010 STANDARD TO ENABLE SPECTRUM SHARING IN THE 3550-3650 MHz BAND AND SUPPORT PCAST RECOMMENDATIONS**

**PISCATAWAY, N.J., USA, XX January 2013** – IEEE, the world's largest professional organization advancing technology for humanity, today announced that it has authorized the revision project to add advanced beaconing capabilities to the IEEE Standard 802.22.1™-2010 to enable spectrum sharing in the 3550-3650 MHz band with existing radars and fixed satellite earth stations. This revision PAR was introduced to support the United States President’ s Council of Advisors on Science and Technology (PCAST) [report](http://www.whitehouse.gov/sites/default/files/microsites/ostp/pcast_spectrum_report_final_july_20_2012.pdf) promoting spectrum sharing and more efficient use of spectrum through new cognitive radio technologies and interference mitigation techniques.

“Such a Standardized Advanced Beacon is an innovative way to enable spectrum sharing in real time in many bands and for many innovative applications,” said Dr. Apurva N. Mody, Chairman of the IEEE 802.22 Standards Working Group.

In June 2010, the President of the United States signed a Memorandum calling for the National Telecommunications and Information Administration (NTIA), in collaboration with the Federal Communications Commission (FCC), to make 500 megahertz of spectrum available for fixed and mobile wireless broadband.

One of the portions of the spectrum identified to achieve this goal is the S-Band (2000-3700 MHz) where radars have been deployed. The current plan is to use database service driven operation which will enforce large exclusion zones along the US coastline to protect U.S. Navy coastal operations and other Department of Defense test and training areas. Such large exclusion zones will not allow majority of the large cities along the US coast to gain benefits from this spectrum.

However, advanced beaconing approaches, such as the one developed in the IEEE Standard 802.22.1-2010 originally designed for interference protection of licensed wireless microphones may be used for these bands. Such an advanced beacon, will enable spectrum sharing and make 100 MHz of spectrum available nation-wide, and especially in the coastal areas where significant US population resides. Such a beaconing approach allows spectrum sharing operation in real time and dynamically, which otherwise could not be supported through any other means easily.

The designed beacon will contain peace time temporal patterns of the radars which when combined with some universal time clock such as GPS can help commercial communications systems to use the empty time slots for their operation. During emergency scenarios, the beacon will be able to send urgent messages, to ask all the commercial systems to shut down immediately. Enhanced security features, spectrum management, self organizing network and relay capabilities will also be included in the beacon specification.

The IEEE 802.22™ Working Group (WG), recipient of the IEEE Standards Association (IEEE-SA) Emerging Technology Award, has completed and published the IEEE 802.22-2011™ Standard on Wireless Regional Area Networks that provides broadband access to wide regional areas globally and bring reliable and secure high-speed communications to under-served and un-served rural communities.

The IEEE P802.22.1 Task Group is making calls for contribution from interested participants for the development of this standard. The group begins work on this project from the March 2013 IEEE 802 plenary session in Orlando, Florida.

Additional information on the standard can be found at the [IEEE](http://www.ieee802.org/22/)-SA standards page. To purchase IEEE 802.22 Standards, visit the [IEEE Standards Store](http://www.techstreet.com/ieee/cgi-bin/detail?vendor_id=4742).

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