Hughes Wins Ellersick Best Paper Award at MILCOM 2014

Defense and Intelligence Satellite Solutions Provider Applauded for Faster-Than-Nyquist Research at Military Communications Conference

Baltimore, Md., October 8, 2014—Hughes Network Systems, LLC (HUGHES), the global leader in broadband satellite networks and services, won the Ellersick Best Paper Award at MILCOM 2014 Conference for its Faster-Than-Nyquist (FTN) technology. The paper was awarded top prize based on technical advances for both commercial and military communications and innovative applications.

The paper, “Faster-Than-Nyquist Signaling and Optimized Signal Constellation for High Spectral Efficiency Communications in Nonlinear Satellite Systems,” summarizes the research by Hughes engineers on the development and application of FTN transmissions. In addition to the winning paper, Hughes submitted two additional entries that further leverage the company’s renowned research and engineering capabilities.

“We are very proud of our world-class advanced development team, led by Dr. Lin-Nan Lee, in being selected for this prestigious award that promises to offer significant advances for both commercial and military SATCOM networks,” said Rick Lober, vice president and general manager of Defense and Intelligence Systems Division (DISD) at Hughes.

Although the concept has existed for over three decades, Hughes engineers were the first to successfully transmit signals using a Nyquist filter at speeds that are considerably higher than Nyquist in nonlinear satellite systems. In simulations, Hughes has demonstrated transmissions more than ten percent faster than Nyquist with almost negligible increase in power. Military troops often operate in bandwidth-limited environments and FTN transmissions provide the bandwidth they demand without requiring large additional power.

“We had a stellar team of Hughes researchers working on the FTN technology, and we’re thrilled to see that this caliber of innovation is being recognized,” said Dr. Lin-Nan Lee, vice president of advanced development at Hughes and one of the authors of the winning paper. “The idea of FTN has been floating around the satellite communications space for decades, and our team was able to take the idea and turn FTN signaling into a tangible reality, with potentially significant benefits to our nation’s defense efforts.”

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About Hughes Network Systems
Hughes Network Systems, LLC (Hughes) is the world’s leading provider of satellite broadband for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments globally. HughesNet® is the #1 high-speed satellite Internet service in the marketplace, with offerings to suit every budget. To date, Hughes has shipped more than 4 million systems to customers in over 100 countries, representing approximately 50 percent market share. Its products employ global standards approved by the TIA, ETSI and ITU organizations, including IPoS/DVB-S2, RSM-A, and GMR-1.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations and digital TV solutions. For additional information about Hughes, please visit www.hughes.com.

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