## Hughes Engineering Executive, Dr. Lin-Nan Lee, Honored with Distinguished Service Award for Contributions to Satellite Communications

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Hughes innovator recognized by IEEE for pioneering satellite research and advancing industry standards

GERMANTOWN, Md., Feb. 4, 2019 /PRNewswire/ -- <u>Hughes Network Systems</u> (HUGHES), the world's leading provider of broadband satellite networks and services announced that the IEEE has honored Dr. Lin-Nan Lee, vice president of Advanced Development at Hughes and Life Fellow at IEEE, with its "Distinguished Contributions to Satellite Communications" award. The IEEE, the world's largest professional organization for the advancement of technology, presents this prestigious award to commend one industry leader for outstanding contributions to the advancement of science, technology and applications in communications.



"Dr. Lin-Nan Lee has had a profound impact on the field of satellite communications for many years," said Dr. Matthew Valenti, IEEE Fellow and Professor in the Lane Department of Computer Science and Electrical Engineering at West Virginia University. "He has been a pioneer in the use of several groundbreaking technologies, including turbo and low-density parity-check (LDPC) coding, interference cancellation, adaptive modulation and faster-than-Nyquist signaling. Dr. Lee's work has shaped many of the most commonly used satellite and cellular standards we use today."

In his over 25-year career at Hughes, Dr. Lee has played a prominent role at both a company and an industry level in developing international satellite communications standards. He contributed to over 30 published journal and conference papers, while helping secure more than 60 U.S. patents of the 300+ held by Hughes, including development of the DVB-S2 and DVB-S2X global satellite standards.

"It's truly a great honor to be recognized by our distinguished peers from the IEEE," said Dr. Lee. "I would like to thank the entire Engineering and Advanced Development team at Hughes as they share in this recognition of accomplishments over the past 25 years, which reflects the collaboration and dedication of an extremely talented group of innovative professionals."

Dr. Lee holds a Bachelor of Science degree from National Taiwan University and a Master of Science and Ph.D. from the University of Notre Dame in South Bend, Indiana. His research activity at Hughes spans many fundamental communications disciplines such as channel coding, modulation, multiple access, signal processing and data compression.

For more information on Hughes, visit www.hughes.com

## **About Hughes Network Systems**

Hughes Network Systems, LLC (HUGHES) is the global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet®, the world's largest satellite network with over 1.3 million residential and business customers across North and South America. For large enterprises and governments, the company's HughesON™ managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform, operating on more than 20 satellites by leading service providers, delivering a wide range of broadband enterprise, mobility and cellular backhaul applications. To date, Hughes has shipped more than 7 million terminals of all types to customers in over 100 countries, representing approximately 50 percent market share, and its technology is powering broadband services to aircraft around the world.

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. For additional information about Hughes, please visit <a href="https://www.hughes.com">www.hughes.com</a> and follow <a href="https://www.hughes.com">@ HughesConnects</a> on Twitter.

## **About EchoStar**

EchoStar Corporation (NASDAQ: SATS) is a premier global provider of satellite communication solutions. Headquartered in Englewood, Colo., and conducting business around the globe, EchoStar is a pioneer in secure communications technologies through its Hughes Network Systems and EchoStar Satellite Services business segments. For more information, visit <a href="https://www.echostar.com">www.echostar.com</a>. Follow <a href="https://www.echostar.com">@EchoStar</a> on Twitter.

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