Advances in Microwave Systems for Deep Space Missions

Chris DeBoy
John Hopkins University
Applied Physics Laboratory
Laurel MD

Date: Thursday, February 21 2008
Time: Lecture 7:00 pm, Reception 5:30 pm, Dinner 6:00-7:00 pm
Place: American Center for Physics, College Park MD directions
Cost: Lecture free.

This is the second lecture in the MTT-S Lecture Series for 2007-08. All are welcome to attend the reception and the catered dinner with the speaker before the lecture. Dinner reservations are required, cost $15.00. RSVP for dinner only by Tuesday February 19 2008 to Roger Kaul, 301-394-4775, r.kaul@ieee.org or to Bruce Levine at bruce.levine@ieee.org.

Abstract: Current and planned deep-space missions depend on advanced techniques in microwave/RF design to accomplish demanding science and telecommunications requirements. This talk will report on advances in microwave systems and technologies in recently launched missions, including the New Horizons Mission to Pluto and the MESSENGER mission to Mercury, on planned improvements to NASA's Deep Space Network, and on the technologies that future missions to the Moon, to Mars, and beyond are depending on to achieve their goals.

Bio: Chris DeBoy is a Principal Staff Engineer and Assistant Group Supervisor of the RF Engineering Group at the Johns Hopkins University Applied Physics Laboratory, where since 1990 he has worked on spacecraft communications system. He has focused principally on developing low-power, advanced transceivers for satellites, both for near-Earth and deep-space missions. He designed the flight command receivers for the TIMED and CONTOUR missions, and is the engineer for the telecommunications system on the New Horizons Mission to Pluto. He holds a BSEE degree from Virginia Tech, an MSEE degree from Johns Hopkins University, and teaches the Satellite Communications Course in the JHU Whiting School of Engineering.