

中野久松名誉教授が Virtual 国際会議において Short-Course の講師をつとめました。

IEEE International Symposium on Antennas and Propagation, IEEE APS-2020

講義題目 : **Virtual Course** SC-6: Recent Progress in Beam-Steering, Null Field-Forming, and Tilted Beam-Forming with Natural and Metamaterial Antennas <https://2020apsursi.org/>

場所 : カナダ・モンリオール

日時 : 7月5日 (日曜日) 8:00 AM-12:00 AM (4時間講義)

Presented by Hisamatsu Nakano

Date and Time: Sunday, July 5, 08:00 - 12:00

Abstract: Modern radio-wave communication systems require an antenna to have special capability, such as beam-steering capability, null field-forming capability, or tilted beam-forming capability. It is known that such capabilities can be realized using phased array antenna techniques, where multiple radiation elements, phase shifters, and attenuators are used. However, the phase shifters and attenuators for a phased array antenna are costly and the design of the phased array is complex. The purpose of this short course is to present recently developed techniques that overcome these issues.

Bio:

Hisamatsu Nakano (IEEE Life Fellow) is a Professor Emeritus at Hosei University and a special-appointment researcher at Hosei university graduate school. His research topics include numerical methods for low- and high-frequency antennas and optical waveguides. He has published over 320 articles in major peer-reviewed journals and is the author or co-author of 12 books, including “Low-Profile Natural and Metamaterial Antennas,” IEEE-Press, Wiley, 2016.

Prof. Nakano’s significant contributions are the development of five integral equations for line antennas, including Sommerfeld integral-based equations, and the realization of numerous wideband antennas, including curl, spiral, helical, grid array, and BOR antennas. His low-profile helical array antenna has been used as a primary feed for radio astronomy Cassegrain reflectors. It has also been adopted as a high-gain antenna for the Mercury Magnetospheric Orbiter. His other accomplishments include antennas for GPS, personal handy phone systems, space radio, electronic toll collection systems, RFID systems, UWB systems, and radar systems. He has been awarded 78 patents, including “A Curl Antenna Element and its Array.”

Prof. Nakano received the following major awards (1)~(3) from the IEEE Antennas and Propagation Society: (1) Best Application Paper Award (H. A. Wheeler Award), 1994. (2) Chen-To Tai Distinguished Educator Award, 2006. (3) Distinguished Achievement Award, 2016. In addition, he received “The Prize for Science and Technology,” from Japan’s Minister of Education, Culture, Sports, Science, and Technology, 2010.

Prof. Nakano has served as a member of AdCom (2000-2002) and the Region 10 representative (2004-2010) of the IEEE Antennas and Propagation Society. He is an associate editor of several journals and magazines, such as Electromagnetics, IEEE Antennas and Propagation Society Magazine, etc.