



Kentaro NISHIMORI, Ph.D.

Associate professor

Program: Electrical and Information Engineering

Area: Information Engineering

Undergraduate: Dept. of Engineering

Professional Expertise

Hardware implementation in wireless networks, Signal processing, antenna and propagation

Research Fields of Interest

Spatial signal processing including MIMO systems and interference management techniques in heterogeneous networks.

Education

2003: Ph.D. in electrical and computer engineering, Nagoya Institute of Technology, Japan.

1996: M.S. in electrical and computer engineering, Nagoya Institute of Technology, Japan.

1994: B.S. in electrical and computer engineering, Nagoya Institute of Technology, Japan.

Professional Societies and Activities

1. IEEE member
2. IEICE senior member

Awards

1. Young Engineer Award from IEEE AP-S Japan Chapter in 2001
2. Best Paper Award of Software Radio Society of IEICE in 2007.
3. IEICE Best Paper award, 2010.

Major Publications

Papers

[1] K. Nishimori, K. Cho, Y. Takatori, and T. Hori, "Two Base Stations Configuration Using an Adaptive Array at Elevated Locations for Microcell Systems," IEICE Trans. Commun., vol. E83-B, no.8, pp.1688-1696, Aug., 2000.

[2] K. Nishimori, K. Cho, Y. Takatori, and T. Hori, "Adaptive Array for Reducing High-Power CCI on Asynchronous TDD systems," IEICE Trans. Commun., vol. E84-B, no.7, pp.1727-1734, July., 2001.

[3] K. Nishimori, K. Cho, Y. Takatori, and T. Hori, "A Novel Configuration for Realizing Automatic Calibration of Adaptive Array Using Dispersed SPDT Switches for TDD systems," IEICE Trans. Commun., vol. E84-B, no.9, pp.2516-2522, Sept., 2001.

[4] K. Nishimori, K. Cho, Y. Takatori, and T. Hori, "Automatic Calibration Method using Transmitting Signals of an Adaptive Array for TDD Systems", IEEE Trans. Veh. Tech., vol.50, no.6, Nov. 2001.

[5] K. Nishimori, N. Tachikawa, Y. Takatori, R. Kudo and K. Tsunekawa, Frequency Correlation Characteristics Due to Antenna Configurations in Broadband MIMO Transmission. IEICE Trans. Commun., vol. E88-B, no.6, pp.2348-2445, June 2005.

[6] K. Nishimori, Y. Makise, M. Ida, R. Kudo, and K. Tsunekawa, "Channel Capacity Measurement of 8x2 MIMO Transmission by Antenna Configurations in an Actual Cellular Environment," IEEE Trans. Antenna and Propagation, vol. 54, no. 11, pp. 3285-3291, Nov. 2006.

[7] K. Nishimori, H. Yomo, P. Popovski, Y. Takatori, Ramjee Prasad, and Shuji Kubota, "Interference Cancellation and Avoidance for Secondary Users Co-existing with TDD-based Primary Systems," Wireless Personal Communications on Springer, Volume 45, No.3, pp.403-421, May 2008.

[8] K. Nishimori, R. Kudo, N. Honma, Y. Takatori, and M. Mizoguchi, "16x16 MIMO testbed for MU-MIMO downlink transmission, " IEICE Trans. Commun., vol. E93-B, no.2, pp.345-352, Feb. 2010.

[9] K. Nishimori, N. Honma, T. Seki and K. Hiraga, "On the Transmission Method for Short Range MIMO Communication, "IEEE Trans. Vehicular Tech. Vol.60, no.3, pp.1247-1251, March 2011.

[10] K. Nishimori, H. Yomo, and P. Popovski, "Distributed Interference Cancellation for Cognitive Radios Using Periodic Signals of the Primary System", IEEE Wireless Commun. vol.10, no.9, pp.2971-2981, Sept, 2011.

Book Chapters

[1] 後藤 尚久, 伊藤 精彦, 中川 正雄 (編集), アンテナ・無線ハンドブックのV編, 第6章, 6.1節を執筆, 2006年.

[2] 電子情報通信学会 (編), アンテナ工学ハンドブックの9.2章と9.4.1章を執筆, 2008年.