Keisuke NAKANO, Ph.D.

Professor
Program: Electrical and Information Engineering
Area: Information Engineering
Undergraduate: Dept. of Information Engineering
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Research Fields of Interest

Multi-hop networks

- Connectivity analysis, topology control, reliability.
- Performance analysis, communication quality.

Delay tolerant networks

- Performance analysis.
- Routing, information sharing.

Network management and optimization for vehicles

- Charging networks for electric vehicles.
- Floating car systems.

Communication traffic analysis in mobile networks

Fundamental network problems in network systems

Education

1994: Ph.D., Niigata University.
1991: Master of Engineering, Niigata University.
1989: Bachelor of Engineering, Niigata University.

Professional Societies and Activities

1. Senior Member of IEICE, Member of IEEE, ACM and IPSJ.
2. Vice chair, IEICE Technical Committee on Circuits and Systems, 2011.
3. Editor, ACM/Springer Wireless Networks, 2010-present.
4. Secretary, IEICE Technical Committee on Information and Communication Systems for Safe and Secure Life, 2011-present.
5. Member, IEICE Technical Committee on ICT in Smart Grid, 2010-present.
6. Associate Editor, IEICE Trans. Fundamentals, 2001-2005.
7. Director, Finance, IEICE Engineering Sciences Society, 2002-2003.
8. Director, Conferences, IEICE Engineering Sciences Society, 2000-2001.

Awards

1. The Best Paper Award of IEICE, 1997.
2. The Best Paper Award of 1995 IEEE International Conference on Neural Networks and Signal Processing, 1996.

Major Publications

[1] A. Urabe, K. Miyakita, K.Nakano at al., "On relation between limitation of transmission and spread of information in epidemic transmission", IEICE Trans. Commun. (Japanese Edition), J94-B, No.2, pp.122 - 136(2011)

[2] M.Tsuge, M.Tokunaga, K.Nakano, M.Sengoku, "On Estimation of Link Travel Time in Floating Car Systems", International Journal of Intelligent Transportation Systems Research, Vol.8, No.3, pp.175 - 187(2010)

[3] K. Miyakita, K. Nakano, M. Sengoku, S. Shinoda, "Characterization of Minimum Route MTM in One-Dimensional Multi-Hop Wireless Networks", IEICE Trans. Fundamentals, Vol.E92-A, No.9, pp.2227-2235(2009)
[4] K. Nakano, K. Miyakita, A. Otsuka, et al., "Analysis of Mean Waiting Time for Delivery of a Message in Mobile Multi-Hop Networks", IEICE Trans. Fundamentals, Vol.E92-A, No.9, pp.2236-2247(2009)
[5] K. Miyakita, K. Nakano, Y. Morioka, et al., "Characterization of Minimum Route ETX in Multi-Hop Wireless Networks", IEICE Trans. Commun., Vol. E92-B, No. 3, pp. 745-754 (2009)
[6] K. Miyakita, K. Nakano, M. Sengoku, S. Shinoda, "Theoretical Analysis of Route Expected Transmission Count in Multi-Hop Wireless Networks", IEICE Trans. Commun., Vol.E91-B, No.8, pp.2533-2544(2008)
[7] K. Nakano, K. Miyakita, M. Sengoku, S. Shinoda, "Analysis and Relative Evaluation of Connectivity of a Mobile Multi-Hop Network", IEICE Trans. Commun., Vol. E91-B, No. 6, pp.1874-1885 (2008)
[8] T. Kabasawa, K. Nakano, Y. Tanaka, et al., "Effects of Localized Distribution of Terminals and Mobility on Performance Improvement by Direct Communication", IEICE Trans. Fundamentals, Vol.E89-A, No.7, pp.1940-1949 (2006)
[9] Tanaka, K. Nakano, M. Sengoku, S. Shinoda, "Analysis of Communication Traffic Characteristics of a Two-hop Wireless Network", IEICE Trans. Fundamentals, Vol.E85-A, No.7, pp.1436-1444(2002)
[10] H. S. Lee, N. Karasawa, K. Nakano, et al., "Clique Packing Approximation for Analysis of Teletraffic Characteristics of Dynamic Channel Assignment Considering Mobility", IEICE Trans. Fundamentals, vol. E84-A, No. 7, pp. 1651-1659 (2001)
[11] K. Nakano, M. Sengoku, S. Shinoda, "Fundamental characteristics of multi-hop wireless communication networks", Telecommunication Systems, vol. 15, nos. 1, 2, pp. 79-91 (2000)
[12] N. Shinagawa, T. Kobayashi, K. Nakano, M. Sengoku, "Teletraffic Characteristics in Prioritized Handoff Control Method Considering Reattempt Calls", IEICE Trans. Commun., vol. E83-B, No. 8, pp.1810-1818(2000)
[13] K. Nakano, K. Saita, M. Sengoku, et al., "Mobile Communication Traffic Analysis on a Road Systems Model", Performance and Management of Complex Communication Networks, Published by IFIP, Chapman & Hall, pp.4-20(1998)
[14] K. Nakano, H. Yoshioka, M. Sengoku, S. Shinoda, "Analysis of Connection Delay in Cellular Mobile Communication Systems Using Dynamic Channel Assignment", IEICE Trans. Fundamentals, vol. E80-A, no. 7, pp.1257-1262(1997)
[15] K. Nakano, N. Karasawa, M. Sengoku, et al., "Characteristics of Dynamic Channel Assignment in Cellular Systems with Reuse Partitioning", IEICE Trans. Fundamentals, vol. E79, no. 7, pp. 983-989 (1996)
[16] K. Nakano, M. Sengoku, S. Shinoda, T. Abe, "Clique Packing and Dynamic Channel Assignment in Cellular Mobile Communication Systems", Trans. of IEICE B-I, J78-B-I, no. 10, pp.471 - 484(1995) (in Japanese)
[17] K. Nakano, M. Sengoku, T. Takahashi, et al., "Rearrangement Methods of Dynamic Channel Assignment in Cellular Mobile Systems", IEICE Trans. Fundamentals, vol. E75-A, no. 12, pp.1660-1666(1992)
[18] K. Nakano, M. Yokono, M. Sengoku, et al., "An Application of Dynamic Channel Assignment to a Part of a Service Area of a Cellular Mobile Communication System", IEICE Trans. Fundamentals, vol. E75-A, no. 3, pp.969-979(1992)