Yudai HONMA

4-6-1 Komaba, Meguro-ku, Tokyo, 153-8505 Japan

Phone/Fax: +81-3-5452-6379

E-mail: yudai@iis.u-tokyo.ac.jp

Web page: http://www.honma-lab.iis.u-tokyo.ac.jp/en/index_e.html

---

PLACE AND DATE OF BIRTH, SEX

- Nigata, Japan, 9 September 1981 (35 years old), Male

ACADEMIC QUALIFICATIONS

- Ph.D. in Engineering, 2007, Keio University, Kanagawa, Japan
- M.A. in Engineering, 2006, Keio University, Kanagawa, Japan
- B.A. in Engineering, 2004, Keio University, Kanagawa, Japan

RESEARCH INTERESTS

- Operations Research
- Urban and Regional Planning
- Architectural Planning
- Information Networks

ACADEMIC AND RELATED EXPERIENCES

- Associate Professor — May 2017 to present
  Institute of Industrial Science, The University of Tokyo, Tokyo
- Lecturer — Apr. 2014 to May 2017
  Institute of Industrial Science, The University of Tokyo, Tokyo
- Assistant Professor — Apr. 2010 to Mar. 2014
  Waseda Institute for Advanced Study, Waseda University, Tokyo
- Assistant Professor — Apr. 2008 to Mar. 2010
  Department of Management Systems Engineering, Tokyo Metropolitan University, Tokyo
- Research Fellow (for Postdoctoral) — Oct. 2007 to Mar. 2008
  Japan Society for Promotion of Science, Tokyo
- Visiting Researcher — Oct. 2007 to Mar. 2008
  Department of Administration Engineering, Keio University, Kanagawa

- Research Fellow (for Doctoral Course) Apr. 2007 to Sep. 2007
  Japan Society for Promotion of Science, Tokyo
- Ph.D. Candidate Apr. 2006 to Mar. 2007
  Graduate School of Science and Technology, Keio University, Kanagawa
- Research Assistant Apr. 2006 to Mar. 2007
  Keio University the 21st COE Program, "System Design: Paradigm Shift from Intelligence to Life"

GRANTS AND JOINT RESEARCHES

Extramural Research Grants

- Grant-in-Aid for Young Scientists(B) Principal Investigator Apr. 2014 to Mar. 2017
  "Mathematical Study on the Support Infrastructure for Promotion of Next Generation Vehicles"
- Grant-in-Aid for Scientific Research(B) Collaborative Investigator Apr. 2015 to Mar. 2018
  "Mathematical Study for Comfort, Safe and Useful Societies Based on Visual Information"
- YAMAHA Music Foundation Research Grant Support Principal Investigator
  Apr. 2016 to Mar. 2017
  "Mathematical Study of Piano Culture Using Big Size Piano Competition Data"
- Waseda & JX Energy Grant for Young Researcher Principal Investigator Apr. 2013 to Mar. 2014
  "Mathematical Analysis for Business Model of EV Infrastructure in Low-carbon Societies"
- Grant-in-Aid for Young Scientists(B) Principal Investigator Apr. 2011 to Mar. 2014
  "Mathematical Study on the EV Infrastructure for Promotion of Electric Vehicles"
- The OBAYASHI Foundation Grant Support Principal Investigator Apr. 2014 to Mar. 2017
  "Mathematical Analysis on the Support Infrastructure for Promotion of Electric Vehicles and its Effects to Urban Transportation Systems"
- Grant-in-Aid for Young Scientists(Start-up) Principal Investigator Apr. 2014 to Mar. 2017
  "An Efficient Algorism to Calculate Trafic Pattern with Respect to Trip-Chaining Behavior and its Application to Urban Analysis"
- Grant-in-Aid for JSPS Fellows Principal Investigator Apr. 2007 to Mar. 2008
  "Generalization of Entropy Model for Trip-Chaining Behavior and its Application to Urban Analysis"

Joint Researches

- Joint Research with Carlin Inc. Principal Investigator Sep. 2015 to Aug. 2018
  "Mathematical Analysis on the Leading Fashion Trends Based on Collection Picture Data"
- Commissioned Research from NICT Collaborative Investigator Oct. 2016 to Mar. 2019
  "Development of New Collaborative Platform to Incorporate the Worker's and Citizen's Knowledge"

- Joint Research with NEC Co. Principal Investigator Apr. 2014 to Mar. 2016
  "Design of New Network Systems in Terms of Urban Environmental Mathematical Engineering"
- Commissioned Research from NEC Co. Principal Investigator Apr. 2010 to Mar. 2014
  "Design of New Efficient Routing Algorizms for Information Networks in Next Generation"
- Commissioned Research from NEC Co. Collaborative Investigator Apr. 2008 to Mar. 2010
  "Design of Hierarchical and Autonomous-decentralized Routing for Information Networks in Next Generation"
- Commissioned Research from KDDI Co. Collaborative Investigator Apr. 2008 to Mar. 2010
  "Social and User Analysis Based on Mobile Traffic Phone Data"
- Commissioned Research from NICT Collaborative Investigator Apr. 2008 to Mar. 2009
  "Development of Planning and Control Technique for Information Networks in Next Generation"

AWARDS

- Waseda & JX Energy Research Award for Young Researcher Mar. 2014
  for my research "Mathematical Analysis for Business Model of EV Infrastructure in Low-carbon Societies"
- Network System Research Award, Institute of Electronics,Information and Communication Engineers Mar. 2011
  for my research paper "Hierarchical Approach for New Routing Protocol with Respect to Control Time-scale"
- Young Scholar Paper Prize, The City Planning Institute of Japan Apr. 2008
  for my Ph.D. dissertation "A Spatial Interaction Model Incorporating a Sequence of Movements and Its Application to Urban Analysis"
- Nagata Research Prize, Graduate School of Science and Technology, Keio University Feb. 2006
  for my Master's thesis "Generalization of Entropy Model with Respect to Multiple Stops and Its Application to Urban Analysis"
- Fujiwara Prize, Fujiwara Scholarship Foundation, Keio University Mar. 2004
  for my Bachelor's thesis "Determining Joint Distributions of Homes and Workplaces Based on the Random Utility Theory"

LANGUAGES

- Japanese (native)
- English (speak, read and write)

PROFESSIONAL MEMBERSHIPS

- Institute for Operations Research and the Management Sciences (INFORMS)
- The Operations Research Society of Japan
- The City Planning Institute of Japan
- Architectural Institute of Japan
- Institute of Electronics, Information and Communication Engineers

PUBLICATIONS (IN ENGLISH)

Refereed Journal Articles

- Yudai Honma and Shigeki Toriumi, "A Mathematical Analysis of Electric Vehicle Movement with Respect to Multiple Charging-stops", Journal of Energy Engineering, 10.1061/(ASCE)EY.1943-7897.0000356 , F4016007. June 2016.
- Yudai Honma, "Spatial Interaction Model for Trip-Chaining Behavior with a Focus on Calculation Efficiency", Journal of the Operations Research Society of Japan, Vol.58-3, pp.223-246, September 2015.
- Yudai Honma and Shigeki Toriumi, "Model Analysis of Electric Vehicle Charging Infrastructure Development on Highways — An Approximation of the Required Scale of Electric Vehicle Charging Facilities —", FORMA, Vol.29-1, pp.41-50, September 2014.
- Yudai Honma, Masaki Aida and Hideyuki Shimonishi, "New routing methodology focusing on the hierarchical structure of control time scale", WSEAS Transactions on Communications, Vol.13, art.#57, pp.519-526, July 2014.
- Yudai Honma, Masaki Aida, et al., "A New Multi-path Routing Methodology Based on Logit- type Probability Assignment", IEICE Transactions on Communications, Vol.E94-B, No.8, pp.2282-2291, August 2011.
- Yudai Honma, Osamu Kurita and Azuma Taguchi, "Spatial Interaction Model for Trip-Chaining Behavior Based on Entropy Maximizing Method", Journal of the Operations Research Society of Japan, Vol.53-4, pp.235-254, December 2010.
- Kohei Watabe, Yudai Honma and Masaki Aida, "Probe interval designs that improve accuracy of CoMPACT monitor", Simulation Modelling Practice and Theory, Vol.18-1, pp.56-68, December 2010.
- Yudai Honma and Osamu Kurita, "The Dynamics of Urban Activity Distribution with Respect to the Advance of High-Speed Transit Systems", FORMA, Vol.23, pp.51-58, March 2009.
- Yudai Honma Yudai Honma and Osamu Kurita, " A Mathematical Model on the Optimal Number of Hydrogen Stations with Respect to the Diffusion of Fuel Cell Vehicles", Journal of the Operations Research Society of Japan, Vol.51-2, pp.166-190, June 2008.

10 other Refereed Jornal Articls in Japanese

Refereed Conference Proceedings (in Recent 3 years)

- Yudai Honma, "Optimal Scheduling Model for Road Maintenance by City Government", In Proceedings of 15th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2016), Philippines, November 7-9 2016.

- Mondo Sugiyama, Yuki Munemasa and Yudai Honma, "Constrained Optimum Arrangement Model Which Minimizes Movement Costs of Residence, Jobs and Commercial", In Proceedings of 15th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2016), Philippines, November 7-9 2016.

- Yuki Munemasa, Yudai Honma and Kotaro Imai, "Equilibrium and Optimum Location Problem of Housings and Jobs with Constrained Capacity", In Proceedings of EURO Working Group on Locational Analysis XXIII (EWGLA2016), Spain, September 14 2016.

- Yudai Honma, and Ryosuke Yabe, " Mathematical analysis of road blocking to improve evacuation time from tsunami", In Proceedings of 14th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2015), Nepal, October 29-31 2015.

- Yudai Honma, Takamori Ukai, Osamu Kurita, and Yohei Okimura, "Optimal View Points for Fireworks Displays with Respect to Solid Angles", In Proceedings of EURO Working Group on Locational Analysis XXII (EWGLA2015), Hungary, May 19 2015.

- Yudai Honma, "Simultaneous Dynamics of Multiple Retail Category Distributions Focusing on Trip Chaining Behavior", In Proceedings of International Symposium on Scheduling 2015, Japan, July 4-6 2015. Ryosuke Yabe, and Yudai Honma, "Optimal combination of road blocking for improving evacuation time from tsunami", In Proceedings of EURO Working Group on Locational Analysis XXII (EWGLA2015), Hungary, May 19 2015.

- Yudai Honma, "A Mathematical Model for Electric Vehicle Movement with Respect to Multiple Charging-stops", In Proceedings of 13th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2014), Myanmar, November 3-5 2014.

- Ryosuke Yabe, and Yudai Honma, "New mathematical model for maximizing profit of new LCC considering hub-spoke system", In Proceedings of 13th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2014), Myanmar, November 3-5 2014.

- Ryosuke Yabe, and Yudai Honma, "New mathematical model for maximizing profit of new LCC considering hub-spoke system", In Proceedings of 13th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia (USMCA2014), Myanmar, November 3-5 2014.

13 other Refereed Conference Proceedings, and 19 other International Conference Presentations