Dr. Yohei Yamaguchi
Associate Professor, Dr. Eng.
Division of Sustainable Energy and Environmental Engineering,
Graduate School of Engineering, Osaka University.
M3-320, 2-1, Yamadaoka, Suita, Osaka 565-0871, JAPAN.
Tel./Fax.:06-6879-7667. E-mail: yohei@see.eng.osaka-u.ac.jp

Biography

Yohei Yamaguchi is an Associate Professor at the Graduate School of Engineering, Osaka University. He received Ph.D. degree in 2006 from Department of Environmental Engineering, Graduate School of Engineering, Osaka University. He worked as a post-doc researcher in Research Institute for Sustainability Science, Osaka University, from 2006 to 2008 before joining the present division as an assistant professor. He has been working as Associate Professor since 2015. He co-chaired Asia Building Simulation Conference in 2014.

Research Interest

Building sector is a significant contributor to national carbon emissions and has considerable potential in fostering reduction and flexibility in energy demand and carbon emiossions. His research interest involves development of modelling methodologies to support such challenges of building sector and energy systems. His research includes 1) stochastic modelling of daily activity of people, 2) analysis on people's activity and practice, 3) community/urban-scale energy demand modelling of commercial and residential buildings, and 4) analysis on the potential carbon reductions and electricity demand flexibility for demand response.

Key words

- Activity-based energy demand modelling for buildings
- Community/urban-scale modelling
- Energy and carbon emission management
- Demand response

Recent publications

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- Fujimoto, T., Yamaguchi, Y., & Shimoda, Y. (2017). Energy management for voltage control in a net-zero energy house community considering appliance operation constraints and variety of households. Energy and Buildings, 147, 188–199. http://doi.org/10.1016/j.enbuild.2017.05.009
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- Yohei Yamaguchi, Kenju Akai, Junyi Shen, Naoki Fujimura, Yoshiyuki Shimoda, Tatsuyoshi Saijo. Prediction of photovoltaic and solar water heater diffusion and evaluation of promotion policies on the basis of consumers' choices. Applied Energy, Volume 102, February 2013, Pages 1148–1159
- Yohei Yamaguchi, Yoshiyuki Shimoda, Takehito Kitano. Reduction potential of operational carbon dioxide emission of Nakanoshima business/cultural area as a model for low-carbon districts in warm climates, Building and Environment, 59(2013),pp.187-202.
- Yohei Yamaguchi, Soki Nakashima & Yoshiyuki Shimoda: Per capita energy consumption for living, work, transport and other activities in cities in the Keihanshin Metropolitan Region, Japan, International Journal of Sustainable Building Technology and Urban Development, 3:1(2012) , pp.68-76