

## GA 担当教員 研究等紹介③



九州大学  
エネルギー研究教育機構  
(総合理工学府 環境エネルギー工学専攻)  
准教授

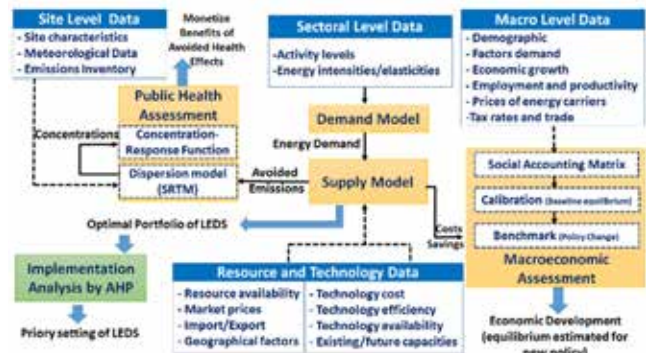
**Farzaneh Hooman**

### Profile of Dr. Hooman Farzaneh, the new addition to the GA faculty

Hooman Farzaneh obtained his Ph.D. degree in energy systems engineering from the science and research branch of Azad University, Tehran, Iran. His doctoral thesis involved developing a comprehensive optimization modeling framework based on the combination of optimal control theory and fuzzy logic in order to investigate the energy efficiency strategies in the urban transportation system of the city of Tehran, Iran. After getting his Ph.D. degree in 2007, Dr. Hooman held the position of assistant professor, consisting in both teaching and research activities at Azad University, Tehran, Iran. From 2009 to 2012, He worked at the Sharif Energy Research Institute (SERI) in Tehran, Iran and served as the principal investigator of several energy optimization projects in Iranian industries. Dr. Farzaneh has been involved in conducting three feasibility study projects on improving energy efficiency in Iranian oil and steel industries in cooperation with the Institute of Energy Economics, Japan (IEEJ), Marubeni Corporation, Mitsubishi Heavy Industries and Kobe Steel. In February 2012, He left Iran to Japan and joined Kyoto University as a GCOE (Global Center Of Excellence) research fellow. His work at Kyoto University included developing a strategic planning method to address different policies that could dramatically change the future course of the Middle East region toward a zero CO2 emission energy system. In April 2013, Dr. Hooman joined the United Nations University Institute for the Advanced Study of Sustainability, (UNU-IAS), Tokyo and undertook the Japan Society for the Promotion of Science (JSPS) postdoctoral fellowship for research in Japan for two years. As a research fellow, He has been involved in several research projects in relation to sustainable development and mitigation such as assessing the climate co-benefits in Asian cities and promoting low carbon technology transfer to developing countries. In 2015, He joined the Institute of Advanced Energy (IAE), Kyoto University and was appointed as a junior associate professor. During his stay at IAE, He introduced and developed a new research theme, entitled "Clean energy development in Asian Megacities" and served as the research principal investigator at the unit of academic knowledge integration studies, Kyoto University. He has also taught several courses at the graduate school of energy science, Kyoto University. Presently, his research interests span both quantitative and

qualitative studies, focusing on developing research patterns of low carbon energy scenarios and policy implementations designed to tackle air pollution problems at both regional and local scales. Much of his work has been on improving the understanding and designing of sustainable energy systems, through data mining, statistics and developing different tools and modeling approaches. His research activities have resulted in more than 50 journals and proceeding papers and numerous other reports (both public and confidential). In 2016, Dr. Farzaneh received the JSPS grant-in-aid for scientific research for his novel idea on developing an integrated quantitative framework for the multiple benefits assessment of clean energy policy implications in Asian megacities. His recent honor includes the Asia-Pacific Network award for the collaborative regional research program on multiple assessment of the low emission development strategies in Asia-Pacific cities.

He has joined the Interdisciplinary Graduate School of Engineering Science, Kyushu University, since April 2018. He is serving as an associate professor and the head of the Energy and Environmental Systems Laboratory at the Department of Energy and Environmental Engineering. Hooman's research is highly interdisciplinary. His research group studies focus on identifying strategies and policies that could facilitate solutions for the long-term energy-related problems—including global energy supply and environmental challenges facing our society. His recent book, "Devising a clean energy strategy for Asian cities" has been published by Springer nature.



Integrated modeling framework for the multiple benefits assessment of clean energy development in urban areas