Prof. Dr. Yasumasa Fujii

Professor, Dept. of Nuclear Engineering and Management,
University of Tokyo

Date of Birth: April 12, 1965

Fields of Expertise:

Assessment and Analysis of Energy Systems, Large-scale Optimization, Stochastic Dynamic Programming, Power System Engineering

Professional Experience

2008 – present	Professor, Dept. of Nuclear Engineering and Management, University of Tokyo
2005 – 2008	Associate Professor, Dept. of Advanced Energy, University of Tokyo
1999 – 2005	Associate Professor, Dept. of Electrical Engineering, University of Tokyo
1997 – 1999	Associate Professor, Yokohama National University
1995 – 1997	Assistant Professor, Yokohama National University
1995	Visiting Research Scholar, International Institute for Applied Systems Analysis, Laxenburg, Austria
1993	Doctorate in Electrical Engineering, University of Tokyo

Special Assignments

2013-2014	Chair of Dept. of Nuclear Eng. and Management, University of Tokyo

About Fujii Laboratory in the Dept. of Nuclear Eng. and Management

Fujii laboratory has been working on the research topics of the feasibility analysis of various alternative energy supply technologies, and policy evaluation for national energy security and global environmental issues using various types of energy system models built with large-scale mathematical programming on the computers. Moreover, research topics of energy management, such as optimal strategy planning of energy procurement under uncertainty, have also been investigated through the use of a variety of analytical techniques, such as appoximated stochastic dynamic programming.

Recent research topics are (among others):

- Evaluations of the mitigation measures against the climate change by the large-scale global energy system model of optimization type with detailed technological options, such as CCS and hydrogen uses

- Analysis on the optimal power generation mix considering the transmission network infrastructure of Japanese power system with the extensive introduction of intermittent renewable power sources

- Study on national energy security improvement measures to deal with possible import disruptions of petroleum and natural gas using stochastic dynamic programming

- Analysis on the optimal expansion planning of nuclear power generation with a long-term nuclear fuel cycle model with explicit consideration of Plutonium isotopic compositions

- Development of dynamic international multi-sectoral energy economic model with a bottom-up approach of engineering process modelling