

Scope : After the earthquake and nuclear disaster in Fukushima, Fukushima local government has decided to change the primary energy portfolio with a target of 100% renewable energy. A regional innovation program for this target has started under the governmental support and four local universities, Fukushima University, Nihon University, Iwaki Meisei Universities and Aizu University are collaboratively developing technologies upon photovoltaics, wind turbine, geothermal and geohot, thermoelectric and smart grid. Human resource development is also an important issue for developing renewable energy in this region.

In this session, Regional Innovation Program upon Renewable Energy is overviewed with an outlook of energy portfolio in Fukushima by 2040.

Program

Chair : Michio Kondo (AIST) :

- (1) Yasuhiro Hattori, Project Director, Regional Innovation Support Program
Fukushima’s Challenges aiming at regional innovation with Renewable Energy
- (2) Akira Watanabe and Masayoshi Takahashi, Fukushima University
Development of small size wind power generation system and characteristics of wind situation at the living environment in Fukushima
- (3) Hironori Suzuki, Tadashi Ishigaki, Takuya Yasuno, and Yukihiro Higashi, Iwaki Meisei University,
Application to the renewable energy of thermoelectric power generation
- (4) Kimihiko Saito, Hiroshi Noge, Aiko Sato, Tetsuya Kaneko and Michio Kondo, Fukushima University, AIST,
Development of Ultrathin c-Si Solar Cells by Interdigitated Back Contact Heterojunction Structure and Inkjet Patterning Process
- (5) Takao Kakizaki, Nihon University,
Development of Innovative Ground Source Heat Utilization Technology for Sustainable Fukushima
- (6) Takafumi Hayashi¹, Hayashi, Hideyuki Fukuhara¹, Yasuhiro Abe¹, Masayuki Hisada², Jiro Yamazaki¹, Hajime Tokura¹, Daishi Yoshino¹, Joseph Tsai¹, Yoshinobu Tanno¹, Yuya Ito¹, Kyohei Shiozawa¹, Hayato Tabata¹, Masanari Murasawa¹, Toshiaki Miyazaki¹, Hayato Tabata¹, Masanari Murasawa¹, Toshiaki Miyazaki¹,¹the University of Aizu, ²Aizu Laboratory, Inc.,
An Intelligent Infrastructure for Smart Grid and Regional Energy Management System