

18 gennaio 2012

Facoltà di Ingegneria – via Terracini 28, Bologna

Ore 11.00 aula TA 03

Shallow Geothermal Exploitation: Experience from Japan

M. Yoshiyoka

Researcher, Groundwater Research Group, Geological Survey of Japan

Development of potential maps for ground source heat-pump systems

Abstract: Investigation of the potential for GSHPs can be helpful for minimizing the initial cost and optimizing the operation. We developed maps showing the potential for GSHPs based on the large-scale groundwater flow/heat transport modeling. The procedures to evaluate the potential for GSHPs and the developed potential maps in Japan are shown in the presentation.

M. Katsuragi

Executive Director, Japan Groundwater Development Co., Ltd.

Snow melting system using ground source

Abstract: A large part of Japan is subject to severe winter weather. 22 % of the population lives in such regions, which is about 60% of the area of Japan. In this presentation, the measures to overcome the snow and ice problems in Japan, especially the snow melting system using ground source, are discussed.

H. Fujii

Associate Professor, Kyushu University

Field tests and numerical modeling of Slinky-coil horizontal heat exchangers

Abstract: Slinky-coil horizontal ground heat exchangers tend to be over- or undersized because of the lack of an appropriate design method for them. In this research, a numerical simulation model for Slinky-coils are developed taking into account the energy balance at the land surface. Some results of sensitivity studies are also presented.