

ISSUE: 05. OPERATIONAL APPROACHES, EQUIPMENT AND PRODUCTS FOR WINTER CONDITIONS

SUB-ISSUE: Pavement materials

Session: ()

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Room:

MR. MASATOSHI YAMAGUCHI

Organisation:

Japan Ground water Development Co.,Ltd.

Country:

 Japan

e-mail:

yamaguchi@jgd.jp

Presentation title:

NUMERICAL APPROACH FOR SNOW-MELTING SYSTEM SET UNDER THE PERMEABLE ASPHALT PAVEMENT

Other Authors

Masatoshi Yamaguchi(Japan Ground water Development Co.,Ltd., Japan, yamaguchi@jgd.jp)

Summary:

In Japan, 24 million people are living in cold and snowy area that occupies about 60% of the country. In order to secure the safe passing space in winter season, the Snow-Melting Equipment has been installed at lifeline network road. The Snow-Melting Equipment which heated circulation liquid is supplied to pipes set under the pavement body is most popular system. And then, this system is able to melt snow and keep freeze above road surface. As a heat source of this system, Groundwater which are mentioned taking advantage of the merit of constant temperature and heated water etc. are used. In recent years, from the nuclear power plant accident of the previous Great East Japan Earthquake, Ground source heat which is the one of the renewable energy is adopted. For the Ground source heat is the low density energy, it need to construct a lot of heat exchangers. The usage of Ground source heat combined with Heat pump system has possibility of reduction for the electric power supply.

