

The 9th Workshop on Subsurface Electromagnetic Measurement

DATE: Thu, Oct 25, 2007 10:00 - 17:10
Fri, Oct 26, 2007 09:30 - 14:30

PLACE: Korea Institute of Science and Technology
39-1 Hawolgok-dong, Deongbuk-gu, Seoul 136-791
<http://www.kist.re.kr/en/index.asp>

Thu, Oct 25 PM (10:00 - 17:10)

(1) 10:00 - 10:30

Development of a ground-based SAR system for highly repeatable measurements

○Hoonyol Lee (Kangwon Nat'l Univ.), Seong-Jun Cho, Nak-Hoon Sung, Jung-Ho Kim (KIGAM)

(2) 10:30 - 11:00

A Spatial-Frequency Filter Design to Suppress Direct Wave for Bistatic Radar

○Naoki Hayashi, Motoyuki Sato (Tohoku Univ.)

(3) 11:00 - 11:30

GPR for humanitarian demining

○Motoyuki Sato (Tohoku Univ.)

(4) 11:30 - 12:00

Generalized optimum running estimation of multi-dimensional signals and some applications

Yuichi Kida (Ohu Univ.), ○Takuro Kida (Nihon Univ.)

----- Lunch Break (60 min.) -----

(5) 13:00 - 13:30

A field measurement with an array-type directional borehole radar system

○Takuya Takayama, Motoyuki Sato (Tohoku Univ)

(6) 13:30 - 14:00

Modeling study on crosshole radar measurement

○Takao Kobayashi, Jung-Ho Kim (KIGAM)

(7) 14:00 - 14:30

Crosshole GPR monitoring of infiltration process in a vadose zone

○Hannuree Jang (Pukyong Nat. Univ.), Seiichiro Kuroda (NIRE), Hee Joon Kim (Pukyong Nat. Univ.)

(8) 14:30 - 15:00

Cross borehole radar monitoring for the vadose zone dynamics beneath an artificial pond

○Seiichiro Kuroda (NIRE), Tatsuya Shibuya (Toyama pref.), Takehiko Okuyama, Mutsuo Takeuchi (NIRE)

----- Break (10 min.) -----

(9) 15:10 - 16:10

[Invited Talk]

Electromagnetic fields and geophysical properties of earth materials (Invited Talk)

○Ki Ha Lee (LBNL)

(10) 16:10 - 16:40

Joint Inversion of DC Resistivity and Travel Time Tomography Data Based on Multiple Constraints

○Jung-Ho Kim, Myeong-Jong Yi, Chang Soo Cho (KIGAM)

(11) 16:40 - 17:10

Time-lapse electrical resistivity measurements of a scale model experiment for geological CO2 sequestration

○Mi Kyung Park, Hannuree Jang, Hee Joon Kim, Soogyun Wang, Minhee Lee (PKNU), Junmo Kim (SNU)

Fri, Oct 26 AM (09:30 - 14:30)

(12) 09:30 - 10:00

Measurements of micro-electric potential and acoustic emission accompanied with specimen failure during uniaxial compressive test

○Seong-Jun Cho, Jong-Wook Kim, Sam-Gyu Park (KIGAM), Young-Soo Song (Chonbuk Nat'l Univ.), Nak-Hun Sung, Jung-Ho Kim (KIGAM)

(13) 10:00 - 10:30

Steepest descent method based on backpropagation technique in MT inversion

○Changsoo Shin (Seoul National Univ.), Taeyoung Ha (NIMS)

(14) 10:30 - 11:00

An advanced analysis of 3D MT data in Pohang, Korea

○Nuree Han (Seoul Natl. Univ.), Myung Jin Nam (Univ. of Texas at Austin), Hee Joon Kim (Pukyong Natl. Univ.), Tae Jong Lee, Yoonho Song (KIGAM), Jung Hee Suh (Seoul Natl. Univ.)

(15) 11:00 - 11:30

Magnetotelluric surveys at Century Mine, Northern Australia

○Seong Kon Lee, Tae Jong Lee, Yoonho Song (KIGAM), James Cull (Monash Univ.), Barry Murphy (Univ. of Melbourne)

(16) 11:30 - 12:00

Interpretation of static-shifted 2D MT data observed in Jeju Island using 3D inversion

○Jihyang Choi (Seoul Natl. Univ.), Hee Joon Kim (Pukyong Natl. Univ.), Myung Jin Nam (UT at Austin), Tae Jong Lee (KIGAM), Nuree Han (Seoul Natl. Univ.), Yoonho Song (KIGAM), Jung Hee Suh (Seoul Natl. Univ.)

----- Lunch Break (60 min.) -----

(17) 13:00 - 13:30

Three-dimensional SIP imaging of the drill-hole core sample

-- - preliminary study : numerical simulation. --

○JeongSul Son, JungHo Kim, SeungJun Cho, MyeongJong Yi (KIGAM)

(18) 13:30 - 14:00

3D modeling of Vertical Electro Magnetic Profiling (VEMP) method

○Yonghyun Chung (Seoul Nat'l Univ.), Seong Kon Lee, Yoonho Song, Tae Jong Lee (KIGAM), Changsoo Shin (Seoul Nat'l Univ.)

(19) 14:00 - 14:30

Visualization of subsurface inhomogenities by 3-D ERT

○Myeong-Jong Yi, Jung-Ho Kim, Jeong-Sul Son (KIGAM)

----- Break (10 min.) -----

(20) 14:40 - 15:10

Signal-to-Clutter Ratio Enhancement of GPR image using Eigenimage Filtering

Seung-Yeup Hyun (KIST), Sang-Wook Kim (Isung Eng.), Se-Yun Kim (KIST)

(21) 15:10 - 15:40

The Development of a Pulse Borehole Radar System for Underground Cavity Detection

Sang-Wook Kim (Isung Eng.), Seung-Yeup Hyun (KIST), Jeong-Hak Lee, Sung-Yong Lee (Isung Eng.),
Jae-Hyoung Cho (KIST), Kuk-Taek Oh (Isung Eng.), Se-Yun Kim (KIST)

(22) 15:40 - 16:10

Measured dielectric properties of borehole cores using an open-ended coaxial probe

Ji-hyun Jung, Se-Yun Kim (KIST)

Contact person

Prof. Motouyuki Sato (Tohoku Univ.) sato@cneas.tohoku.ac.jp

Dr. Seong-Jun Cho (KIGAM) mac@rock25t.kigam.re.kr