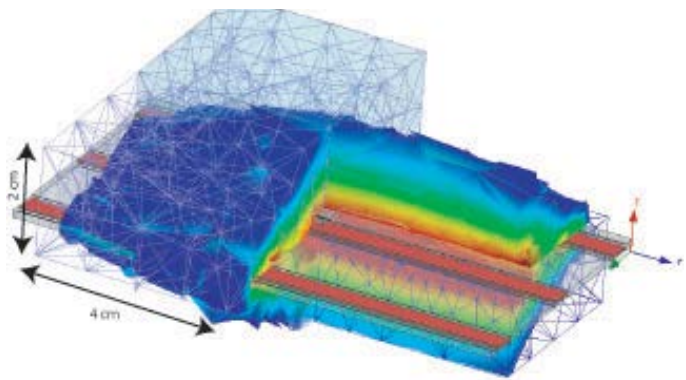




ELECTRIC AND ELECTROMAGNETIC MEASUREMENT METHODS IN CIVIL AND ENVIRONMENTAL ENGINEERING

1st Workshop

2. / 3. October 2014



Background

Non-invasive and minimal invasive geophysical measurement methods are increasingly used in civil and geo-environmental engineering for monitoring purposes both, in field and in laboratory. In order to investigate multi-physical processes, high-frequency electromagnetic (HF-EM) techniques such as ground penetrating radar, conventional time or frequency domain reflectometry, spatial time domain reflectometry, capacitance methods as well as active and passive microwave remote sensing techniques but also low frequency methods such as airborne electromagnetics, spectral induced polarisation and electrical resistivity tomography are used to observe spatial and temporal changes in the phase contents (solid, water and air).

An optimal result of the individual methods requires an improved understanding of the physics of the methods and of the interaction of the material constituents with the excitation signal, technical further developments of devices and analysis techniques and improved calibration procedures.

Objectives

- Bringing together scientists from the Australasian area and abroad working with electric and electromagnetic measurement methods.
- Presentation of ongoing and future research activities.
- Discussion of new experimental, mathematical and numerical approaches.
- Discussion of possible collaborations.
- Collection of contributions for a special issue on this topic in an international peer-reviewed journal.

Program

Thursday 2nd October 2014

- Forenoon:* Presentations and Discussions
- Lunch break:* 12pm – 1pm
- Afternoon:* Presentations and Discussions
- Evening:* Workshop Dinner

Friday 3rd October 2014

- Forenoon:* Presentations and Discussions
Concluding Discussions
- Lunch:* Common Lunch (optional)

Important Information

- Date** Thursday, 2nd & Friday 3rd October
- Time** 9:00am – 4:00pm
- Room** Room 49-313A of the Advanced Engineering Building, UQ
- Fees** Participation on the work shop is free.
- Contribution** Everyone is invited to give a presentation (15min + 5min disc.).
- Important dates** notice of participation, 05/09/14
title of contribution, 19/09/14
full paper (optional), 19/01/15
- Contact** For information please contact:
a.scheuermann@uq.edu.au

Acknowledgement

The workshop is supported by a Queensland Science Fellowship and the School of Civil Engineering.