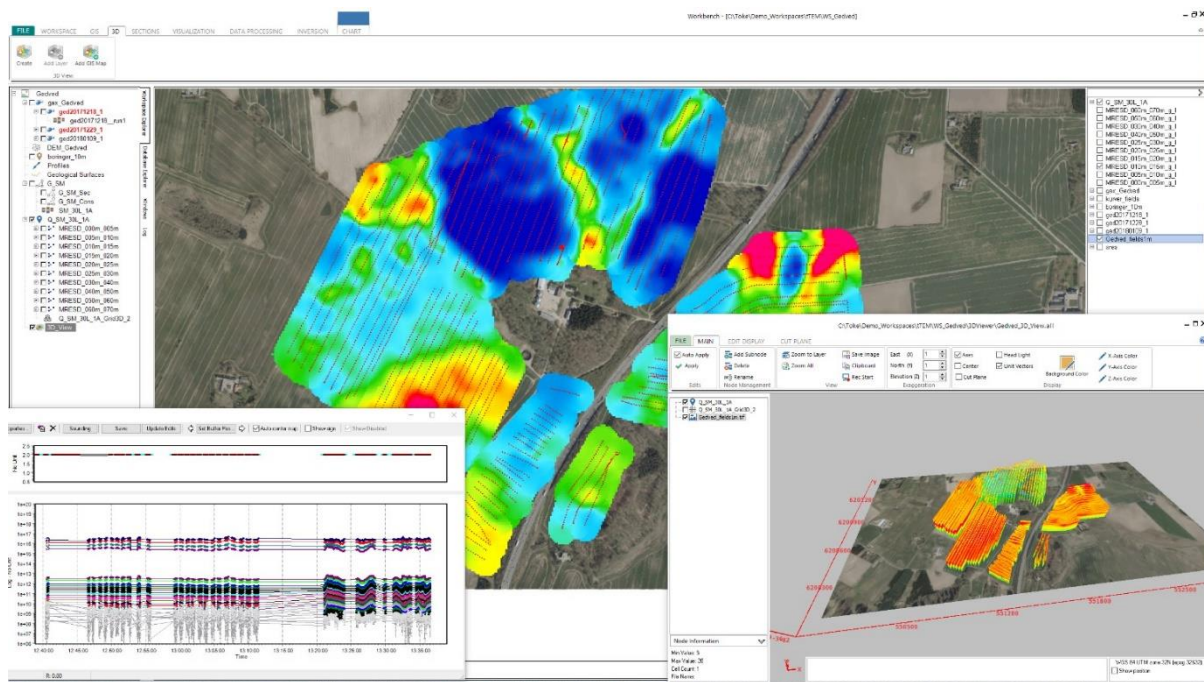




Training Workshop

(Preconference workshop to 1st Indian Near Surface Geophysics Conference & Exhibition)
www.NearSurfaceGeophysics.in

Fundamentals of Ground Based Transient Electro-Magnetic (TEM) Data Processing and Inversion



Date: November 27, 2019
Venue: India Habitat Centre, New Delhi, India
Language: English

Course description

The purpose of the course is to provide the participants with an insight into the ideas and theories behind processing and inversion of TEM data, and in principal how the instruments work. The focus will be on ground-based data, collected for geological (mineral exploration), hydrological, and geotechnical purposes. Experts will demonstrate how processing and inversion of TEM data is carried out in practice. The software packages SPIA and Aarhus Workbench will be used for demonstration. The course will include theory and data from both normal ground based TEM instruments and continuously measuring systems, such as the tTEM instrument. **Course participants will be given a free time limited license to work with data before or after the course. Hands-on exercises will be sent to participants along with license information before the course.**

The workshop is suitable for Geophysicists/ geologists/ engineers carrying out ground based TEM surveys, students/staff at academic institutions involved in research on the TEM method, having basic knowledge of geophysical survey methods.

Course objectives

- Basic theory of time-domain electromagnetics
- Basic function of a TEM instrument
- Data processing
- Data inversion – single soundings and spatial constrained inversions.
- Smooth, layered, and sharp model description
- Inversion optimization and construction of starting models
- Model evaluation – residuals and misfit
- Visualization of TEM inversion models in profiles, mean resistivity maps, 3D viewer, and PDF report

Facilitators



Dr. Pradip Kumar Maurya

Ph.D. in Geophysics from Aarhus University (Denmark). Extensive experience in data processing and inversion of electrical and electromagnetic data. Also worked at the National Geophysical research institute (NGRI), Hyderabad in SkyTEM data processing and inversion (2013-2014) under Aquifer mapping projects. Currently working with the HydroGeophysics Group at Aarhus University as a Post doc. Current research focuses on developing ground-based towed -transient electromagnetic system known as tTEM. Have taught courses in hydro geophysics, particularly electrical and electromagnetic methods.



Mr. Toke Søltoft

MSc in geophysics from Aarhus University (Denmark). Also an electronics engineer educated at Mercantec Technical College in Viborg (Denmark). Worked at CSIRO, Perth (Australia) with airborne EM data, Engineers without borders as project manager on groundwater projects (Ghana), Avannaa in seismic field projects (Greenland), SkyTEM Surveys (Denmark) as field manager, and the HydroGeophysics Group from Geoscience, Aarhus University as geophysicist working with hardware development. Since 2015, Director of Aarhus GeoSoftware (Denmark), a software company developing software for processing, inversion and visualization of electromagnetic and electrical imaging data.

Fee Structure & Registration:

INR 6,000 (for Indian participants) or Euro 200 (GST @18% or as applicable will be charged extra), inclusive of morning- evening tea & Lunch. A discount of 20% for students and 10% discount on group booking of 04 or more participants from a single organization is applicable. Prior registration is must by sending email to praggya@nearsurfacegeophysics.in or asiapacific@eage.org.

For more information please contact : [Praggya Sharmaa \(Ms\), Organizing Secretary](mailto:Praggya.Sharmaa@eage.org)
at +91 9818568825, +91 9873556395, Telefax: +91-11-41318030

OR

Email at info@aquafoundation.in

European Association of Geoscientists & Engineers (EAGE)
EAGE Asia Pacific Sdn Bhd, UOA Centre - Office Suite 19-15-3A, 19, Jalan Pinang, 50450
Kuala Lumpur - Malaysia
Tel: +60 327 220 140, Ext: 582, Mobile: +60 102 046 791
Email : asiapacific@eage.org, Website : www.eage.org
