Near Surface Geoscience ideas break through

Brilliant ideas are expected to come to the surface as the 15 April deadline for paper submissions for the 21st Near Surface Geoscience 2015 in Turin on 6-10 September 2015 approaches.

Geoscientists are encouraged to submit their contribution on several topics of applied geophysics and particularly, for geology, hydrogeological and geotechnical characterization of soil and rock. The conference will focus on the integration of geophysical methods in hydrology and hydrogeological investigation, on landslides characterization and monitoring, on geophysical methods for mining and tunnelling, and on structure and infrastructure assessment. Moreover, because of the increasing relevancy of applied geophysics in seismological application, experiences in the adoption of geophysical methods in seismological studies will be shared.

Another important topic is the characterization and monitoring in Alpine and cold regions. New technologies in applied geophysics are also encouraged – new methods, the development of hardware and advances in data processing and interpretation.

For more information please visit www.eage.org/event/proximal-sensing-2015.

Precision agriculture applications need high detailed information in respect to spatial and temporal variability of soil properties, hydrology, and crop evolution. The state of the art of these technologies is in continuous evolution such as the related data interpretation and elaboration.

The First Conference on Proximal Sensing supporting Precision Agriculture will therefore provide an interdisciplinary forum for researchers, professionals and engineers from all over the world to show their latest researches and to share experience in this field in order to improve and spread the knowledge on evolving technologies and new data treatment methodologies.

Researchers and practitioners operating in the field are strongly encouraged to submit an abstract in one of the sessions of the scientific programme of the conference, which will be structured according to the following main topics:

1) Applications and techniques of soil proximal sensing: innovative research and applications of soil electrical conductivity/resistivity mapping and tomography; electromagnetic devices (EMI and GPR); soil spectroscopy and radiometric methods; electrochemical and mechanical devices; development of new sensors and multi-sensors platforms.
2) Applications and techniques of canopy proximal sensing: innovative and non-invasive technologies to evaluate the spatial variation of vegetation vigour, crop quality and physiological parameters.
3) Geostatistical methods for proximal sensing, data elaboration and data fusion: several methods of spatial statistics, data-mining and data-fusion.

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EuroAEM is planned as a parallel, two-day event providing a focus on innovations in airborne electromagnetics (AEM) technology aimed at better investigating the near surface. The last decade has brought game-changing system improvements that made AEM a reliable and calibrated addition or even alternative for ground-based surveys with superior efficiency for mid- to large-scale projects. This development is leading to quantitative AEM interpretation becoming as precise as surface measurements. The scientific and industry community’s point of view is eagerly sought on these goals. Keynote speakers from Australia, India, the US and Europe will enrich the technical content of the conference.

We encourage contributions from all over the world and especially with a European focus and applications that are of special interest in this region. We also welcome abstracts on hard- and software developments, novel interpretation schemes, and unconventional applications but also from other geophysical fields related to AEM.

For more information please visit www.eage.org/event/airborne-em-2015.
EAGE/SEG Research Workshop to bring geophysics and geomechanics together

EAGE is teaming up with the SEG to research the latest developments in modelling with geophysical and geomechanical data by applying the latest information on methods and case studies using 4D seismic over deforming reservoirs.

The joint EAGE/SEG Research Workshop on 16-19 November, 2015 in Lisbon, Portugal is titled ‘Geophysics and Geomechanics, Jointly applied to Subsurface Characterization’. A theme common to the submitted papers will be the integration of physical observations into the subsurface model.

A thorough understanding of geomechanical effects that can be induced by depletion of or injection into the subsurface is increasingly important in many settings, and can have significant impact on risk management, production strategies and economic forecasting. There are, broadly speaking, two philosophies one might apply to solving these problems: prediction, through the use of geomechanical models, and geophysical monitoring. In conventional reservoir modelling, we are used to ‘history matching’ of certain observations related to fluid flow, with the intention of enhancing the predictive power of the model. In many cases, a further integration of geomechanical modelling and geophysical monitoring could be carried out, extending the scope of modelling to include anticipation of potentially high-impact events due to stress change in the subsurface.

The workshop will attract participants from a range of disciplines, particularly those working with deforming reservoirs and reservoir dynamics in general. Many of the methods to be discussed pertain to dynamic effects that have applications to problems such as the prediction of pore fluid pressures prior to drilling and production and injection performance.

For more details on the EAGE/SEG Research Workshop, please refer to the EAGE website.