Letter from the President

Dear members of the NSGS,

In this Quarter’s President note, I would like to share with you a few upcoming deadlines, and provide you with an update on ongoing and new Chapter activities.

First upcoming deadline is for abstract submissions for the 2014 SEG Annual Meeting, which will be held from October 26 to 31 in Denver, CO. The abstract submission window opened on March 5 and will close on April 2. I would very much like to encourage you to prepare an abstract on your most recent work and get it submitted to be part of the NS program. This year’s Topic Leader for Near Surface is NSGS President-Elect John Lane. Vice-President Kristina Keating is again organizing the standing AGU-SEG Special Session on Hydrogeophysics. More information about the program and instructions to submit abstracts can be found here: http://www.seg.org/web/annual-meeting-2014/technical-program/call-for-paper.

Now is also a great time to submit nominations for the NSGS honors and awards. Participation from the membership is very much welcomed and encouraged. Nominations can come from any NSGS member so please don’t hesitate and write a short note to one of us on the Executive Committee about why you feel your nominee is deserving recognition by the section. Nominations for the Harold Mooney Award, which is given each year by the NSGS, are due on June 1; more information can be found here: http://www.seg.org/resources/sections-societies/near_surface/awards.

Regarding the proposed new near surface ‘subsidiary’ organization, SEG and EEGS have reached formal agreement to move forward with a merger. Each society’s leadership believes that a merged entity can best serve the community, you, the members, EEGS and the SEG/NSGS. You get to make the final decision when you vote on the proposed merger. The formal agreement is currently in final stages of a thorough legal review. Pending approval of the final agreement by the EEGS Board of Directors, the merger recommendation will put to a vote by EEGS and NSGS members. If there is a positive member vote, a merger could occur by the end of 2014. In coming months, as this process develops, you will certainly hear more from us.

In 2015, the SEG and NSGS will bring you the second installment of the Asia-Pacific Near Surface Geophysics Meeting. The first edition of this bi-annual meeting was held last year in Beijing, China, with participants from all member countries (Australia, China, Japan, Korea, and the USA). Planning for the 2015 meeting, which is expected to take place during next year’s in Hawaii, is currently underway. In the next newsletter I hope to be able to bring you more information about this event.

As you read on in this newsletter, you will find various interesting articles, including a feature article from a Geoscientists Without Borders project team in Brazil, a note on best presentation award winners from the Houston Annual Meeting, a call for papers, and a calendar of upcoming events.

Best Regards,

Remke Van Dam

Michigan State University & Queensland University of Technology

rvd@msu.edu
In Brazil, many states suffer severe social and economic problems due to landslides and debris flows triggered by heavy rain. These events often claim many lives and cause widespread damage to buildings, roads, and utilities such as electric, telephone, sewage, and drinking water. An example of such a disaster is the series of landslides, debris flows, and floods that struck the Região Serrana of the Rio de Janeiro state in January 2011. Official reports confirm over 900 deaths, 500 missing, and over 30,000 destroyed homes, but many would say the numbers are higher than that. This particular event is considered one of the worst natural disasters in the history of Brazil, and the United Nations ranked it among the worst natural disasters in modern history. Unfortunately, landslides continue to pose a major risk to the safety of the communities in this region. There are a number of government programs in place across Brazil to deal with both the technical and humanitarian aspects of the landslide hazard. However, new areas of risk develop faster than the government can implement solutions, which results in new tragedies occurring every year in the country.

In the light of the Região Serrana event, the project "Risk Assessment and Advanced Warning for Landslides in Brazil" was awarded by the SEG in July 2011 to a group of American (University of Houston (UH) and Massachusetts Institute of Technology (MIT)) and Brazilian universities (Universidade Estadual do Rio de Janeiro (UFRJ) and Universidade Federal Fluminense (UFF)). The goal of this project is to use existing data and gather new geophysical and geological data to study areas deemed at high risk of landslide in the Região Serrana of the Rio de Janeiro state in Brazil.

The project began with Laura Azevedo, one of the project managers and then Masters student at the University of Houston, visiting Brazil in the end of August 2011 to attend two organizational meetings: one with the collaborators from academia and one with government agents. The goal of these meetings was to let the locals know about the project, inform the GWB members of existing landslide projects, and identify data that are available.
During these meetings we discovered that in all of the affected areas in the region, there were many projects concerning community education. Each city in the region is divided into many communities. Each community has a group of ‘community leaders’ who work with government agencies to help organize meetings and prepare procedures for the population in the case of a disaster event. We learned that many (if not all) of these regions have precipitation-based alarm systems. Also, we were granted access to a large amount of information thanks to various government departments, such as the Rio de Janeiro State Geological Survey (DRM) that have a vast amount of data about the Regiao Serrana and continuously survey the area to assist the population.

One critical dataset that is necessary for our project is a high-resolution Digital Elevation Model (DEM) of the areas of interest. At the time of our meetings, the available DEM data for the cities in the Regiao Serrana had resolution of 1:25,000. For a few basins, a DEM with resolution of 1:10,000 could be found; however, that was still too low resolution for the purposes of our project. Therefore, once we had defined the project areas, we would have to acquire new high-resolution satellite data in order to produce a high-resolution DEM for the locations.

As mentioned above, the landslides/floods issue in the Regiao Serrana is a large-scale problem. The Regiao Serrana is formed by tens of cities, each of which contains various hydrological basins. In order to study the landslides/floods phenomena for an area in this region, one needs to examine the whole basin within which the area is located. Therefore, the hydrological basin is the unit for our studies rather than individual slopes, for example. These basins each have problems of different nature; some basins suffer from a large number of landslides, others have very few landslides but very violent flash floods capable of moving meter diameter boulders, others have a combination of both problems. Besides the landslides, there are many slopes prone to different kinds of rock failure (as opposed to soil failure). This is also a big problem since there are many houses and buildings that were (and still can be) damaged by these rock failures. Our next task was to choose the basins for the project.

The first few field trips were done with the goal of visiting various locations and choosing the basins for the project according to our time frame and budget. Our guide and leader for these trips, and most of the other trips, was Prof. Nelson Fernandes from UFRJ. Professor Fernandes is a landslide researcher with particular interests in the Rio de Janeiro state. He is involved in many academic as well as government sponsored projects across that region. He and his students took us to visit three severely affected cities: Petropolis, Teresopolis, and Nova Friburgo. After these field trips, and taking into account the information obtained at our previous meetings, we decided on three basins: Vale da Posse, Salaco, and Vieira.

Each of these basins has different characteristics and hazard types. In the Salaco basin the main hazard are the landslides, as seen in Figure 1. In the Posse and Vieira basins, violent flash floods and mass/debris flows are the major problems. Most of the materials within the flows largely come from boulders located at the highest part of the basin, material from landslides along the basin, and excavated material from past mass/debris flows.

While the characteristics and hazard type vary from basin to basin, the general study plan for each basin is:
1) Estimate soil thickness
2) Estimate hydraulic conductivity
3) Generate high resolution DEM
4) Calculate slope stability using DEM together with available field data
5) Simulate mass flow and run-out potential

We took the characteristics of the different basins into account and proceeded with fieldwork.

The first field campaign, again guided by Prof. Nelson Fernandes, was completed in April 2012. The goal was to begin the mass flow mapping for Posse and Vieira basins, and collect GPR data at Salaco for soil thickness estimation. The geophysics team went to Salaco for two days to collect the first round of GPR data. The geophysics group was mainly composed of
students from UFF led by Prof. Marcelo Cetale, also from UFF. The field conditions were tricky; the city had just suffered recent landslides that occurred only a few days before our visit. Also, it had been raining for a few days earlier and it continued raining during the fieldwork. Still, we could collect a number GPR profiles in different parts of Salaco. In Figure 2, we show a raw GPR data profile to demonstrate the quality of the data.

The fieldwork to map the mass/debris flows was and is still being performed by the group from UFRJ. A group from MIT also participated in the initial mapping fieldwork performed in Posse. Some of the damage caused in Posse is shown in Figure 3. The goal of this fieldwork was to register the current conditions of the basin (information that is necessary for modeling future events and assessing current risks) and to talk to the population to try to identify the conditions right before and right after the disaster (information that is necessary to test the models).

To give continuation to the project, members from MIT, together with members from the Brazilian university UFRJ, submitted a proposal for a three-year parallel project that adds a research component to the GWB project. This project was accepted and is co-funded by the Centro Nacional de Pesquisa e Desenvolvimento do Brasil (CNPq) and the MISTI Seed Fund program at MIT. The Brazilian agency CNPq is funding three Brazilian Ph.D. students for 6 months as exchange students at MIT; one Brazilian post-doc for 2 months at MIT; three short trips for Brazilian professors and researchers to visit MIT. The MIT MISTI Seed Fund program has already financed five trips to Brazil for MIT team members to attend meetings and participate in the fieldwork in Brazil. This parallel project is also meant to enhance research collaboration between the two universities and promote the continuation of the GWB project.
Expanded abstracts are now being received for the SEG 2014 International Exposition and 84th Annual Meeting, to be held 26-31 October in Denver, Colorado, USA.

**ABSTRACT SUBMISSION DEADLINE: 2 April, 2014**

In 2014, the SEG will return to Denver for its 84th Annual Meeting. Don’t miss this opportunity to share your latest case histories, technological advancements, and research discoveries with the world’s greatest assembly of applied geophysicists.

Hollevigue, 2012 Technical Program Technical Program Chairman Brad Birkelo and his committee invite you to submit expanded abstracts for Poster, e-Poster, and Oral presentations at the meeting. We welcome contributions that promote the science of applied geophysics from all sectors and branches of the worldwide geoscience community.

Submissions must be written in acceptable English and conform to standard SEG formats. They must contain high-quality graphics and relevant references to support the text. Expanded abstracts received after the deadline or violating SEG standards will be rejected. Given the success of the previous meetings and the large number of submissions we expect to receive for this meeting, only the highest quality abstracts that fit into the program will be accepted.

To further enhance the Technical Program, SEG wishes to live stream and/or record select oral sessions to place on the SEG website. In order to do so, we must have a recording release for both your presentation file and the audio portion of your presentation. Please consider selecting “Yes” for these releases when making your submission.

Abstract submission will begin 5 March 2014. Deadline is 2 April 2014 at 5:00 PM US Central Daylight Time.
**Integrated geophysical methods applied to geotechnical and geohazard engineering: From qualitative to quantitative analysis and interpretation**

The “Near-Surface” is a region of day-to-day human activity on the Earth. It is exposed to the natural phenomena which sometimes cause disasters. This lecture covers a broad spectrum of the geotechnical and geohazard ways of mitigating disaster and conserving the natural environment using geophysical methods and emphasizes the contribution of geophysics to such issues.

The lecture focuses on the usefulness of geophysical surveys in providing information to mitigate disasters, rather than the theoretical details of a particular technique. Several techniques are introduced at the level of concept and application. Topics include various geohazard and geo-environmental applications, such as for earthquake disaster mitigation, preventing floods triggered by tremendous rain, for environmental conservation and studying the effect of global warming. Many geophysical techniques discussed with the applications of active and passive surface-waves, refraction, and resistivity methods highlighted. Several related issues, such as performance-based design, standardization or regularization, internet access, and databases are also discussed.

The lecture discusses the application of geophysical methods to engineering investigations from a “nonuniqueness” point of view and introduces the concepts of “integrated” and “quantitative.” Most geophysical analyses are essentially nonunique and it is very difficult to obtain unique and reliable engineering solutions from only one geophysical method. The only practical way to improve the reliability of investigation is the joint use of several geophysical and geotechnical investigation methods, an “integrated” approach to geophysics. The result of a geophysical method is generally vague—here is a high-velocity layer, it may be bed rock; this low-resistivity section may contain clayey soils. Such vague, qualitative and subjective interpretation is not worthwhile in general engineering design work. Engineers need more quantitative information, such as bedrock depth is 10.5 m and permeability of this sand layer is $1.5 \times 10^{-3}$ cm/s. In order to apply geophysical methods to engineering design work, “quantitative” interpretation is very important. The lecture introduces several case studies from different countries around the world from the “integrated” and “quantitative” points of view.

Koichi Hayashi is presently a Software Development Manager at Geometrics in San Jose, California. Over the past 20 years, he has worked as a research geophysicist focusing on providing better tools and algorithms for near-surface geophysical methods. He earned a bachelor’s degree in Earth Sciences from Chiba University, a master’s in Earth Sciences from the Massachusetts Institute of Technology, and a PhD in Earth Resources Engineering from Kyoto University. His main research areas are seismic refraction, active and passive surface waves, finite-difference seismic modeling, and traveltime inversion. He is the main developer of the widely used SeisImager program and has incorporated many of his theoretical developments into the software, making SeisImager a premier surface-wave, refraction, and downhole processing package available today. He regularly presents papers at SEG meetings and has published over 30 papers in journals and proceedings of SEG, EEGS, and SEGJ. In 2006, he received an award from SEGJ for the development of surface-wave methods. He presented in an SEGJ one-day seminar on the surface-wave method. He is a member of SEG’s Near-Surface Task Force and of the International Affairs Committee of SEGJ.
Three abstracts presented in Near Surface sessions during the Houston 2013 Annual Meeting received “Best Presentation Awards”. We would like to congratulate Daniele Boiero, Alireza Malehmir, Aaron Stanton, and their colleagues with this recognition.

**Daniele Boiero, WesternGeco**

“Building a near-surface velocity model in the South Ghadames Basin: Surface-wave inversion to solve complex statics” (NS 3.2)

Authors:
D. Boiero, P. Marsden, V. Esaulov, A. Zarkhidze, and P. Vermeer, WesternGeco

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**Alireza Malehmir, Uppsala University**

“A multidisciplinary geophysical and geotechnical investigation of quick clay landslides in Sweden” (HA/NS 1.6)

Authors:
Alireza Malehmir, Silvia Salas Romero, Chunling Shan, Emil Lundberg, and Christopher Juhlin, Uppsala University; Mehrdad Bastani and Lena Persson, Geological Survey of Sweden; Charlotte Krawczyk and Ulrich Polom, Leibniz Institute for Applied Geophysics; Anna Adamczyk and Michal Malinowski, Polish Academy of Sciences; Marcus Gurk, University of Cologne; Nazli Ismail, Syiah Kuala University

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**Aaron Stanton, University of Alberta**

“Processing seismic data in the presence of residual statics” (NS 3.7)

Authors:
Aaron Stanton, Nasser Kazemi, and Mauricio D. Sacchi, University of Alberta
Objective of the workshop
While originally developed for prospection and characterization of mineral deposits purposes, the recent developments of Induced Polarization (IP) geophysical methods in terms of instrumentation, processes understanding at micro-scale for low frequencies (< 1000 Hz) or macroscopic modeling and inversion processes are very promising for environmental low-polarizable targets study. Promising applications of the IP method are particularly seen in hydrogeophysics, biogeophysics or characterization of contaminated sites.

Two previous workshops had already taken place entitled ‘International Workshop on Induced Polarization in Near-Surface Geophysics’. The first one held in Bonn, Germany in 2009, and the second one in Golden, Colorado, USA in 2011. The aim of the first workshop was to present last developments and applications of the method for near surface hydrogeological and environmental investigations. The goal of the second workshop was to focus on the understanding of the mechanisms generating IP signals in the earth. These workshops had also dealt with data acquisition, petrophysical relationships, theory and laboratory studies, inverse modelling and imaging, or with environmental, hydrological or engineering applications.

The aim of this third workshop is twofold:
• discuss the recent developments of the method for the geophysicist community
• open the discussion with other scientific communities (e.g., medical imaging, biological, astrophysical) using the same physical processes even if with other names (e.g., AC impedance spectroscopy, low-frequency dielectric spectroscopy).

The particularity of this workshop is that classical scientific sessions will be completed with working groups.
SAGE, the Summer of Applied Geophysical Experience, is a unique educational program designed to introduce students in geophysics and related fields to "hands on" geophysical exploration and research. The program emphasizes both teaching of field methods and research related to basic science and a variety of applied problems.

SAGE is hosted by the National Security Education Center and the Earth and Environmental Sciences Division of the Los Alamos National Laboratory. Major support for SAGE is provided by the U. S. Department of Energy and U. S. National Science Foundation. SAGE is a National Science Foundation Research Experiences for Undergraduates program.

LEARN seismic reflection & refraction techniques. GET to the gravity of the matter. FAMILIARIZE yourself with electromagnetic methods. APPLY geophysics to environmental or archaeological problems. MEET other students with similar geophysical interests. INTRODUCE yourself to career opportunities - make contacts with industry representatives. STUDY the tectonics of an active continental rift.

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**Announcing.... SAGE 2014**

**U.S. Undergraduates**
Tuesday June 17 to Friday July 11, 2014

All foreign and graduate students
Friday June 20 to Friday July 11, 2014

*"undergraduate” means BS, BA or equivalent degree not awarded by time of participation in SAGE*

Further information visit [www.sage.lanl.gov/](http://www.sage.lanl.gov/)

The application deadline is 5:00 PM US Mountain Daylight time, Friday, March 29 for SAGE 2013. The deadline is FIRM, as evaluations begin immediately after March 29.
Joint SEG/AGU Summer Research Workshop
21-24 July 2014 • Vancouver, Canada

Advances in Active+Passive “Full Wavefield” Seismic Imaging: from Reservoirs to Plate Tectonics
Call for Contributions

Abstract submission deadline: 1 May 2014
Advance registration deadline: 20 June 2014

Please email to ksmith@seg.org or fax to Kristi Smith at +1-918-497-5552 with your abstract
Or mail to:
Kristi Smith, Programs and Events Manager
SEG Business Office
8801 S. Yale Ave., Ste. 500, Tulsa, OK 74137
+1-918-497-5564 Phone • +1-918-497-5552 FAX
If you are interested in submitting an article on Humanitarian Geophysics to TLE, please contact Louise Pellerin (pellerin@greengeophysics.com).

Due date for article submission is 15 Aug 2014.
CALL FOR PAPERS

 Submission deadline: 30 August 2014

https://mc.manuscriptcentral.com/interpretation

Geophysical imaging and interpretation of outcrops

Outcrops have long been studied as analogs for rocks rich in natural resources, including hydrocarbons, minerals, and groundwater. Outcrops provide highly detailed information on facies assemblages, stratigraphy, textural and petrographic variability, and fracture patterns, among others. However, except in a few exceptional cases, this information is strictly two-dimensional. Geophysical tools allow for a "look behind the cliff," thus enabling 2D outcrop analog data to be extended into the third dimension. Such geophysical investigations can be operated from the cliff top, cliff face, and boreholes.

With the increasing demand for unconventional, geothermal, mineral and water resources as exploration targets there is a renewed interest in detailed outcrop studies. For this special section of Interpretation, we invite papers that focus on applying geophysical tools (e.g., seismic, ground-penetrating radar, and downhole geophysical logging) for imaging and interpretation of outcrops. We also invite papers that use Lidar and high-resolution outcrop imagery in combination with behind-the-cliff geophysical data or synthetics.

The focus of the work can be on geophysical imaging and modeling, 3D facies analysis and sequence stratigraphy, studies of deformation and faulting, mineralization, fracture zones, and generating high-resolution input for geological modeling of both sedimentary and crystalline systems. Case studies for specific outcrop analogs are also welcomed.

Interpretation, copublished by SEG and AAPG, aims to advance the practice of subsurface interpretation.

The submissions will be processed according to the following timeline:

 Submission deadline: 30 August 2014
 Publication of issue: May 2015

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Image courtesy of M. Pipan
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<tr>
<th>Dates</th>
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<th>Location</th>
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<tr>
<td>Mar 16-20 2014</td>
<td>27th Annual Symposium on the Application of Geophysics for Engineering and Environmental Problems (SAGEEP)</td>
<td>Boston, MA, USA</td>
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<tr>
<td>Jun 20 - 23, 2014</td>
<td>6th International Conference on Environmental and Engineering Geophysics (ICEEG)</td>
<td>Xi’an, Shaanxi, China</td>
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<td>Aug 15, 2014</td>
<td>Deadline for submission - TLE Humanitarian Applications</td>
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<tr>
<td>Sep 15 - 17, 2014</td>
<td>20th European Meeting of Environmental and Engineering Geophysics</td>
<td>Athens, Greece</td>
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<td>Oct 26 - 31, 2014</td>
<td>SEG Annual Meeting</td>
<td>Denver, CO, USA</td>
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<td>Dec 15 - 19, 2014</td>
<td>AGU Annual Meeting</td>
<td>San Francisco, CA, USA</td>
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NSGS Membership

Please encourage your colleagues to join the NSGS. Membership for students is free! All NSGS members must, however, also be members of our mother society SEG.

NSGS membership exists in three classes based on the corresponding membership status with SEG:
- Active: active member of SEG (15$ / year)
- Affiliate: associate member of SEG (15$ / year)
- Student: student member of SEG (free!!!)

Membership applications can be found at: http://nsgs.seg.org/member-become.php
Job Postings

Associate Geophysicist
Illinois State Geological Survey Prairie Research Institute University of Illinois at Urbana-Champaign

The Illinois State Geological Survey (ISGS) is a premier state geological survey serving the needs of Illinois with earth science information relevant to the state's environmental quality, economic vitality, and public safety. The ISGS, which is part of the Prairie Research Institute at the University of Illinois at Urbana-Champaign, is located in the Natural Resources Building on the University's 700-acre campus.

We are seeking an individual to design, initiate, and complete original research in high resolution geophysics as applied to Quaternary and near-surface geology with particular emphasis on collection and inversion of ground-based and airborne electrical, electromagnetic, and magnetic data sets. This research must support ISGS goals associated with 3D geologic or hydrogeologic mapping and modeling, geostatistical simulation, and hydrogeophysical studies. Successful candidate will be expected to effectively communicate results of their investigations in a variety of formats and venues. Requirements include a minimum of bachelor’s degree in geology, geophysics, or related discipline is required; however, a Ph.D. is highly preferred. Seven (7) years related industry and/or research experience post bachelor’s degree. Experience applying ground-based and airborne high-resolution geophysical data acquisition, processing, and interpretation procedures to near-surface problems with an emphasis on electrical, electromagnetic, and magnetic methods. Experience designing and applying inversion models for high-resolution geophysical data sets. Knowledge of hydrogeology.

Applications must be received by April 25, 2014. To apply, qualified candidates must submit an online profile through https://jobs.illinois.edu/academic-job-board by the closing date. Additionally, candidates must upload a 1) cover letter, 2) résumé/CV, 3) the names and contact information (including e-mail addresses) of three professional references. All requested information must be submitted for applications to be considered. Incomplete applications will not be reviewed.

For further information please contact Lori Walston-Vonderharr, Human Resources, Illinois State Geological Survey, at lwalston@illinois.edu or 217-244-2401.

The University of Illinois is an Affirmative Action, Equal Opportunity Employer. www.inclusiveillinois.illinois.edu

Northeastern University STEM Future Faculty Fellowship Program

Northeastern University invites nominations and applications from candidates in the STEM (science, technology, engineering and mathematics) fields for the Northeastern University STEM Future Faculty Fellowship (Postdoctoral) Program.

Northeastern University’s mission emphasizes translational research that addresses global challenges and enhances social wellbeing. Northeastern University strives to create a vibrant and diverse community, characterized by collaboration, creativity, and unwavering commitment to excellence and an equally unwavering commitment to exhibiting respect for one another. Northeastern celebrates diversity in all its forms and fosters a culture of respect that affirms inter-group relations and builds community.

Consistent with Northeastern’s mission, vision and core values, the objectives of the STEM Future Faculty fellowship program are:

1. to encourage and promote excellence and diversity in the pool of future faculty candidates in the STEM fields at Northeastern;
2. to introduce to Northeastern’s academic community qualified postdoctoral researchers in the STEM fields who are considering faculty careers;
3. to enhance opportunities for academic careers in the STEM fields for persons from diverse backgrounds who have demonstrated a commitment to an inclusive faculty and an inclusive academic experience for all students;
4. to prepare Future Faculty Fellows for possible tenure-track appointments at Northeastern;
5. to enhance the academic environment of Northeastern’s STEM fields by providing opportunities for students and faculty to gain experience in multi-cultural, broadly diverse and inclusive work settings and research collaborations that improve the capacity of all their members.

More information can be found online at: http://www.northeastern.edu/advance/recruitment/northeastern-university-stem-future-faculty-fellowship-program/

Principal Scientist - Electromagnetics

Applicants should apply online at www.halliburton.jobs to Requisition Number 00256233.
apply your exceptional technical and leadership abilities to the role of principal scientist - physics. in this capacity, you will apply theories, principles and practices to the research and development of new and improved products, processes and procedures. in addition, you will perform routine research and experimentation, document progress, communicate the needs of the consumer, and participate in professional societies.

requirements:

- undergraduate and phd degrees in electrical engineering, geophysics, physics, mathematics, or equivalent
- experience with electromagnetics or magnetics
- experience in developing numerical modeling and/or inversion software
- experience with software development in matlab or fortran
- experience with geophysical data acquisition and processing systems
- good communication skills
- prior oilfield experience (preferred)

post doctoral fellow - marine geodynamics

the position is available from 01.05.2014 onward.

the successful candidate will develop his/her own research portfolio in the field of integration of geophysical data (i.e. electromagnetic, seismic and gravimetric data) for marine resource assessment as part of our core strategic program (pof). possible working areas include development of data integration concepts for methane hydrate/gas quantification, marine ore deposit exploration or imaging of geologically complex regions (i.e. sub-basalt or sub-salt imaging offshore passive margins).

the successful candidate is expected to have experience in modeling and inversion, should have a phd in geosciences and have a strong publication record.

the position is full-time which can be split and available for an initial funding period of three years with a possibility of extension after successful evaluation. the salary depends on qualification up to the class 13 tvöd of the german tariff for public employees.

the successful candidate will have the possibility to join the integrated marine postdoc network (imap) within the cluster of excellence ‘future ocean’. the network is geared towards scientists on non-permanent.

the geomar helmholtz centre for ocean research is an equal opportunity employer and encourages female scientists and scientists with disabilities to apply.

please send your application including cv, phd certificate, publication list, names and contact details of three referees, and a short description of your research plan no later than 15.03.2014 to the following address:

geomar helmholtz centre for ocean research kiel human resource division k.
mahn wischhofstraße 1-3
d-24148 kiel
germany

please mention the keyword “geophysical data integration” on the envelope and on the application. a re-addressed envelope is greatly appreciated.

for further information please contact dr. marion jegen, ph.: +49 431 6002560 (mjegen@geomar.de).

geophysicist - earth exploration, inc. (eei)

earth exploration, inc. (eei), a geotechnical design and consulting firm headquartered in indianapolis, with a branch office in niles, michigan, is seeking a geophysicist to perform a variety of geophysical services primarily within indiana. the successful candidate will possess leadership skills, independent work and critical thinking skills and have a desire for growth. this position offers opportunities to support in-house geotechnical projects and the environmental industry. the successful candidate will have an interest in all operations of data acquisition systems, troubleshooting sensors and software, gis, and collecting/processing/qc geophysical data including but not limited to ground penetrating radar, seismic methods,
resistivity, electromagnetic and magnetometer data using appropriate equipment. This position also requires processing of geophysical data collected at the various project sites, ensuring turnaround to meet deadlines with a high level of data quality, and preparing reports. Additional responsibilities include providing guidance for working in a safe workplace, attending training classes as needed for data collection and processing, and marketing geophysical services to new and existing clients. A bachelor’s degree (master degree preferred) from an accredited institution with a focus in Geology, Geophysics, Hydrogeology, Environmental Science or a related field is required in addition to no less than 5 years of geophysical experience similar to that discussed above. The position offers competitive pay and benefits. Submit resumes to Ms. Debra Lee dlee@earthengr.com at 7770 W. New York Street, Indianapolis, IN 46214.

EARTH EXPLORATION, INC. IS AN EQUAL OPPORTUNITY EMPLOYER