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# ***CORPORATE ASSOCIATE PROGRAM***

ENERGY & GEOSCIENCE INSTITUTE AT THE UNIVERSITY OF UTAH  
COLLEGE OF ENGINEERING

**Amerada Hess**

**Nuevo Energy**

**Anadarko**

**Occidental**

**Apache**

**Ocean Energy**

**BHP**

**Paladin**

**BP**

**PetroCanada**

**CEPSA**

**Phillips**

**Chevron-Texaco**

**Preussag Energie**

**Conoco**

**Repsol-YPF**

**EEX**

**Samson**

**EnCana**

**Shell - Enterprise**

**Hunt Oil**

**Statoil**

**Kerr McGee**

**Talisman**

**Marathon**

**TotalFinaElf**

**Nexen**

**Vintage**

**Noble Energy**

**Wintershall**

**Novus**

**EGI**

Energy and Geoscience Institute at the University of Utah  
423 Wakara Way, Suite 300, Salt Lake City, Utah 84108  
(801) 581-5126 Email: rlevey@egi.utah.edu  
Dr. Raymond A. Levey – Director  
<http://www.associates.egi.utah.edu>



*Salt Lake  
Houston  
Calgary  
London*

*Five Elements  
of Membership*

*EGI*

*Technical  
Expertise*

**EGI**

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# **CORPORATE ASSOCIATE PROGRAM**

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## ► **Benefits and Privileges ---**

- **Global database (30 Years, 425 Research Reports, Seismic, Wells)**
- **Multi-sponsored projects (cost shared by members)**
- **Sole-sponsored projects**
- **Instructional services & training**
- **Consultation with technical staff**

## ► **Research Groups ---**

### **Geochemistry**

Surface Geochemistry

Petroleum Systems

Reservoir Geochemistry

### **Stratigraphy**

Graphic Correlation

Sequence Stratigraphy

Depositional Systems

### **Metocean & Seabed Stability**

Sample Design

Cruise QA/QC

Geohazard Analysis

### **Structure**

Balanced Sections

Fracture Analysis

Basin Modeling

### **Geomatics & Satellite Imagery**

Remote Sensing

GIS, GPS & Digital Mapping

Georeferencing and Data Conversion

Digital Image Acquisition & Processing

*\*Annual Membership \$45,000 U.S.*

*For More Information*

## **Energy & Geoscience Institute**

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# Petroleum Geochemistry Group

ENERGY & GEOSCIENCE INSTITUTE AT THE UNIVERSITY OF UTAH  
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## Goal

Provide EGI Corporate Associates with high quality integrated geochemical and basin/maturation modeling expertise.

## Expertise

- High quality analytical research laboratory facility
- Surface geochemistry (near-surface leakage)
- Quantitative analysis of geochemical data
- Reservoir geochemistry (field segmentation)
- Maturation and basin modeling
- Fluid inclusion evaluation
- Migration analysis using injection tracers
- Integrated petroleum systems evaluation

## Example Research Projects

- Petroleum systems evaluation using near-surface geochemical techniques
- Charge timing for key organic rich sources relative to trap formation
- Evaluate field segmentation issues using PVA and GC/MS & GC data

## Analytical Services

Provide highly specialized research analytical services to Corporate Associates:

- asphaltene precipitation
- column chromatography (separation)
- soxhlet extraction (source rock)
- high-resolution gas chromatography (GC-FID)
- gas chromatography-mass spectrometry (GC/MS)
- isotopic analysis of crude oils and fractions
- closed tube pyrolysis-gas chromatography

## Geochemical Database

- Over 1,200 crude oils samples/analyses from 20 countries
- Over 3,000 source rock samples/analyses from 20 countries

## Training

Provide in-house training for staff or to meet training obligations:

- Petroleum geochemistry for the petroleum systems analyst *M. Abrams*
- Hydrocarbon migration and its near surface expression *M. Abrams*
- Reservoir geochemistry *M. Abrams, and G. Johnson*

## **For more information contact:**

Michael A. Abrams

801-581-8856

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The logo for the Energy &amp; Geoscience Institute (EGI), consisting of the letters 'EGI' in a bold, red, sans-serif font.

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<http://associates.egi.utah.edu>



# Structure Group

ENERGY & GEOSCIENCE INSTITUTE AT THE UNIVERSITY OF UTAH  
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## Goal

Conduct applied research in the area of structural geology. Provide assistance to Corporate Associates in addressing questions or conducting studies of a structural nature.

## Expertise

- Extensive global experience in all structural styles including salt, wrench, compressional, extensional and passive margin
- Full-time structural staff (professional, post-doctoral, and technician), as well as specialized structural consultants
- Group headed by Dr. Michal Nemcok who has experience in all basins of the Carpathian-Pannonian Basin system (foreland, forearc, backarc, pull-apart), Bristol Channel (inverted rift basin), Andean retroarc foreland basin (Bolivia), San Joaquin Basin in the San Andreas strike-slip and transpressional setting, Paradox Basin on the Colorado Plateau, Santos and Nova Scotia rift to passive margin basins, the Dinarides, the Wyoming thrustbelt and the Alpine foreland basin (Austria)

## Example Research Projects

- Systematics of Hydrocarbon Exploration and Production in Thrustbelts
- Geology and Hydrocarbon Potential of the Central and North Caspian Depressions, West Central Asia

## Analytical Services

Structural services at EGI encompass a broad range of topics:

- Construction and evaluation of “balanced” structural cross sections supported by physical and numeric modelling
- Integrated quantitative basin analysis
- Reservoir-scale structural analysis
- Systematics of hydrocarbon exploration and production in thrustbelts, foreland basins, wrench provinces, rift and inverted rift settings and passive margins
- Fracture analysis

## Training

- Modern Concepts in Structural Geology
- Wrench Fault Systems as a Habitat for Hydrocarbons
- Structural Analysis of the Inverted Bristol Channel Basin: Implications for the Geometry and Timing of Fracture Porosity
- Construction and Evaluation of “Balanced” Structural Cross Sections
- Thrustbelts and Foreland Basins as Habitats for Hydrocarbons

### **For more information contact:**

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# The Stratigraphy Group

ENERGY & GEOSCIENCE INSTITUTE AT THE UNIVERSITY OF UTAH  
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## Goal

To maximize the value of applied biostratigraphy, and revitalize industrial and academic biostratigraphy through chronostratigraphic research, new technology development, and industry-academic cooperation. Build a diverse team of geologic experts who together create and use unique stratigraphic tools in order to address specific stratigraphic and biostratigraphic problems.

## Expertise

- Global database of composite standards calibrated to absolute time, including data from reference stratigraphic sections from around the world
- Proprietary analytical and graphic correlation software
- Proven stratigraphic technology development team
- Ten full-time staff members (professional, post-doctoral, and technician), as well as specialized biostratigraphic consultants from all disciplines

## Example Research Projects

- Regional Chronostratigraphy and Depositional Model for the Jurassic to Neogene section of the Scotian Shelf.
- Deepwater Gulf of Mexico Chronostratigraphy and Paleoenvironments
- Chronostratigraphy of the Campos and Santos Basins, SE Brazil
- Geochemical Unmixing as a Lithochemical Stratigraphy Tool

## Analytical Services

- Research and development of the chronostratigraphic database, composite standards, and proprietary analytical software.
- Unique stratigraphic capabilities for age dating and correlations; identifying faults, unconformities, and condensed intervals; defining subtle stratigraphic architecture; and establishing a time framework for risk-related parameters, sequence stratigraphy, and paleoenvironmental reconstruction.
- Chronostratigraphic interpretations are integrated with other data in order to define the nature and duration of depositional hiatuses, determine paleobathymetric trends, and estimate rates of sediment accumulation.
- Integrated projects that better define facies geometries; correlate between terrestrial and marine sections; provide absolute time for sequence stratigraphic and basin modeling analysis.
- Applied research projects span the range from biostratigraphic analysis of one or more wells to fully integrated projects that involve multiple geoscience disciplines.

## Training

- Biostratigraphy/Chronostratigraphy in Hydrocarbon Exploration and Production
- Applied Multivariate Analysis of Geological Data

### **For more information contact:**

Dr. Anthony Gary	801-585-9768	<a href="mailto:tgary@egi.utah.edu">tgary@egi.utah.edu</a>
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# Seabed Stability/ Metocean Group

ENERGY & GEOSCIENCE INSTITUTE AT THE UNIVERSITY OF UTAH  
COLLEGE OF ENGINEERING



## Goal

Provide Corporate Associates with rapid, reliable seabed stability and metocean dynamics information for cost-effective offshore exploration and production. Applications include: enhanced drill site selection; line orientation and spacing for seismic/exploration surveys; meteorological-oceanographic conditions affecting a facility within its lifespan.

## Expertise

- Extensive offshore global experience including Brazil, eastern Canada, Mediterranean, West Africa, Southeast Asia, Indian Ocean
- Shipboard geophysical/geotechnical/geochemical QA/QC
- Sea floor stability analysis and geohazard zonations
- Extreme wind/wave/current conditions; direct data and forecasting
- GIS-based environmental analyses and satellite-derived data

## Example Research Projects

- Brazil Offshore Basins – Seabed Stability and Environmental Study
- Southeast Asia Seabed Stability and Metocean Initiatives
- Seabed Stability of the Western Africa Continental Margin – Constraints to Exploration and Production

## Analytical Services

Metocean services at EGI encompass a broad range of topics:

- Analysis of seafloor studies in preparation for offshore drill site selection
- Exploration survey planning, quality control, supervision and analysis
- Combined geotechnical/geophysical/metocean studies
- Planning and interpretation of seep surveys
- Seismic survey planning to optimize orientation, timing and cost effectiveness

## Training

- Modern Depositional Systems – Keys to Reservoir and Source Rock Deposition
- Satellite Imagery Data – Evaluation and Forecasting Potential
- Geohazard Zonation Evaluations – Theory and Practice

### **For more information contact:**

Dr. Marylin Segall

801-585-5730

[mpsegall@egi.utah.edu](mailto:mpsegall@egi.utah.edu)

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# GeoSpatial Data Systems Group

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## Goal

The GeoSpatial Data Systems group is the remote sensing, GIS, GPS and digital mapping arm of the Energy & Geoscience Institute at the University of Utah (EGI). The group provides services to government agencies, geothermal and petroleum industry.

## Expertise

- Group led by Dr. Gregory D. Nash, Associate Professor, Departments of Civil and Environmental Engineering and Geography
- Fully integrated laboratory utilizing Sun and Pentium II workstations, and Arc/Info, ArcView, ERDAS Imagine and ER Mapper software. A UNIX based Oracle server is also housed in the Geomatics Laboratory
- The group cooperates with the DIGIT Laboratory, Department of Geography, to supplement the full-time staff members. This cooperative effort offers multidisciplinary expertise to address a wide spectrum of GIS and remote sensing problems.
- The group has participated in research related to energy exploration, structural mapping, lithologic mapping, hydrothermal alteration mapping, geobotanical anomaly mapping, surface temperature mapping and GIS database development.

## Example Research Projects

- Petroleum Basins of North Africa: An Arcview GIS Synthesis
- Deep-Water Sands: Exploration Plays & Reservoirs (ArcView/ArcInfo GIS)

## Analytical Services

The group provides a broad range of services:

- Remote sensing, GIS, GPS and digital mapping services
- Data capture, GIS database development
- Georeferencing and data conversion
- Digital image acquisition and processing
- Digital cartography
- Custom GIS interface design
- Large format color map printing
- Fast turnaround solutions to Corporate Associate problems

## Training

- Desktop GIS: A Data Synthesizing and Analysis Tool for the Natural Resource Exploration and Extraction Industries

### **For more information contact:**

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