

**Conference Announcement  
International Geoscience Education  
Organisation (GeoSciEd VI)  
“Geoscience Education Developing the World”  
Johannesburg, South Africa,  
August 29 – September 3, 2010**

**Important Dates**

**Abstract Submission Deadline: 3 March 2010**

**Registration Deadline: 30 April 2010**

**Deadline for papers for proceedings: 29 October 2010**

**INTRODUCTION**

Geoscience Education is less well developed than other fields of science education such as physics, biology and chemistry. In order to strengthen the field, educators at all levels and from multiple disciplines, in both informal and formal contexts, need to collaborate to improve practice, pedagogy, curriculum development, and research.

The International Geosciences Education Organisation (IGEO), an affiliate to the IUGS (International Union of Geological Sciences), is the largest international organisation dedicated to addressing the above issues. The society holds conferences every four years interspersed with sessions during the International Geological Congresses.

The South African organising committee invites participation in the Sixth International Geoscience Education Conference (GeoSciEd VI) in Johannesburg, South Africa in 2010 with the theme:

“Geoscience Education - Developing the World”

South Africa, as one of the world’s successful developing nations, is a natural choice for this conference, and is a sought-after travel destination for professionals and tourists. We look forward to seeing you in Johannesburg - also known as Egoli - the City of Gold.

**OUR THEME**

We live in an age of unprecedented prosperity, with developing nations entering a period of growth to increase living standards to the level of the developed world. This growth will require development on an enormous scale, and will be fuelled by increasing and more efficient use of resources and mineral wealth.

Simultaneously, there is increasing global awareness that the environmental effects of exploitation such as environmental degradation, natural hazards, climate change, pollution, and loss of natural beauty must be minimised or eliminated. At the same time non-renewable mineral resources are becoming more difficult to locate in sufficient quantity and concentration.

Key to the extraction of and the sustainable use of resources for the development and the maintenance of a high quality of life is an understanding of the Earth as a set of interacting systems. This is the science of the Earth—the geosciences. It follows that overcoming the enormous developmental challenges facing our present civilization will require the highest quality and best educated geoscientists. Creating these quality geoscientists is the field of Geoscience Education.

The public also need to understand the Earth and evaluate the environmental and developmental challenges facing us. Can science maintain and improve the standard of living of richer communities whilst developing the poor to the same level? What natural beauty, ecosystem diversity, and geological heritage are being lost? What are the natural hazards that we need adapt to or mitigate? What do the public need to know, what actions do they need to take? Can geotourism and geoheritage sites be used to develop communities?

All the above need to be communicated and explained by geoscience educators taking into account the cultural, economic and political systems within which they operate.



"promoting GeoScience education worldwide"



## CONFERENCE SUB-THEMES

### What should we teach?

Reviews of rapidly changing fields of geosciences that are topical and of general interest. Examples are:

- Climate change and variability in the coming decades;
- Will there be enough water for all in the future?;
- What energy sources will we be using in the next 50 years?;
- How will our patterns of mineral resource exploitation change?;
- Natural disaster prediction and management;
- The future of geosciences and geoscience careers.

### Teaching difficult and/or controversial geoscience topics

Research and best practice for teaching foundation geoscience concepts such as evolution, deep time and Earth as a system

### Geoscience Education Research

Geoscience education research: studies, methodologies, and areas of need

### Best practice in geoscience education

Examples of excellence in geoscience education at pre- and primary school, secondary school and tertiary institutions

### Earth Science Olympiads

Using Earth Science Olympiads as a tool to promote geoscience education

### Geoscience education in informal settings

Using geoparks, museum, science centres, media, and other informal settings to teach geosciences

### Indigenous Knowledge

Alternative frameworks of knowledge and geoscience education

### Promoting diversity in the geosciences

Encouraging the participation of women and underrepresented groups in the geosciences

### Different social, economic and political contexts

How should geoscience education programmes be adapted to different social, economic and political contexts?

### Global comparisons

Descriptions of national curricula and international comparisons of curricula and geoscience education programmes across the globe. Are there differences between the developed and developing world?

### Using computers and multimedia to teach about the geosciences

Geoscience education programmes that involve the use of computers, multimedia and other advanced technology

### Geoscience education in the real world

Using fieldwork and other "real world" experiences to teach about the geosciences

### Collecting, analysing and modelling geoscience data

Teaching through the collection of geoscience data (for example with classroom seismometers), analysis (e.g., geographical information systems) and the construction of models.

### PROVISIONAL PROGRAMME FOR FIELD TRIPS

Six-, two- and one-day pre and post conference field trips

Four days of presentations of papers and posters at the University of the Witwatersrand

Mid-conference field trip

### ORGANISING COMMITTEE

Dr Ian McKay

Ms Ferna Clarkson

Ms Ellen De Kock

Mr Reggie Domoney

Professor Gillian Drennan

Dr Sharon Locke

Dr Tanja Reinhardt

Professor Russanne Low

Dr Veronica Ngole

Ms Vuyiswa Ngesman

Ms Michelle Scorgie-Gallant

Dr Craig Smith

### Field Trips

Professor Gillian Drennan

Professor Roger Gibson

Professor Terence McCarthy

Dr Deon Brandt

### Technical Committee

Dr Tanja Reinhardt

Dr Anne Cameron

Dr David Broad

Professor Tony Lelliot

Professor John Rogers

Professor Marianne Trudeau

### For more information and to register see our website at:

<http://web.wits.ac.za/NewsRoom/Conferences/GeoSciEd>  
or email [witsgeoutreach@gmail.com](mailto:witsgeoutreach@gmail.com)