The evolution of:

- Geoscience Education (GeoSciEd), conferences
- the International Geoscience Education Organisation (IGEO)
- the International Earth Science Olympiads (IESO) and
- the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)

Chris King, Keele University

Summary

The sections below comprise:

- a timeline of GeoSciEd conferences, IGEO and IESO meetings and development
- a GeoSciEd conference section
- an International Geoscience Education Organisation (IGEO) section
- an International Earth Science Olympiad (IESO) section
- an International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE) section

Timeline

Timeline	
1990	 International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)
1993	International Conference on Geoscience Education and Training, Southampton, UK
1994	
1995	
1996	 Publication of GEOSCIENCE EDUCATION & TRAINING, Stow & McCall (eds) proceedings of the First Conference, Balkema Publ., 855pp.
1997	 GeoSciEd II, Hilo, Hawaii, USA International geoscience education association development committee formed, Hilo, Hawaii, USA
1998	
1999	
2000	 GeoSciEd III, Sydney, Australia Internal Geoscience Education Organisation (IGEO) formed; first General Meeting, Sydney, Australia First IGEO Council meeting, Sydney, Australia
2001	
2002	
2003	GeoSciEd IV, Calgary, Canada
	 Second IGEO General meeting, Calgary, Canada
	 Second IGEO Council meeting, Calgary, Canada
2004	 32nd International Geological Congress (IGC), Florence, Italy, IGEO organisation of three themes (school, higher and outreach education) Third IGEO Council meeting), Florence, Italy Formation of the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE), Boulder Colorado, USA
2005	
2006	GeoSciEd V, Bayreuth, Germany
	 Third IGEO General meeting, Bayreuth, Germany
	Fourth IGEO Council meeting, Bayreuth, Germany
2007	1 st International Earth Science Olympiad, Daegu and Youngwol,, Korea.
2008	 33rd International Geological Congress (IGC), Oslo, Norway, IGEO organisation of an education theme
	Fifth IGEO Council meeting, Oslo, Norway
	 Meeting of members of the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)), Oslo, Norway
	2 nd International Earth Science Olympiad, Manila and Bicol, the Philippines

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2009	 3rd International Earth Science Olympiad, Taipei, Taiwan
	IGEO supported the International Conference for Global Development (GeoDev), Dhaka,
	Bangladesh
2010	GeoSciEd VI, Johannesburg, South Africa
2010	
	Fourth IGEO General meeting, Johannesburg, South Africa
	 Sixth IGEO Council meeting, Johannesburg, South Africa
	 4th International Earth Science Olympiad, Yogyakarta, Indonesia
	 IGEO supported the Joint Assembly of Geoscience Organisations in the Americas,
	Iguassu Falls, Brazil
2011	5 th International Earth Science Olympiad, Modena, Italy
2012	34th International Geological Congress (IGC), Brisbane, Australia, IGEO involvement in
	two themes 1.2 Geoscience education and 2.3 Developing geoscience education and
	awareness for the benefit of society
	 Seventh IGEO Council meeting, Brisbane, Australia
	 IUGS-COGE Commission meeting Brisbane, Australia
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	6 th International Earth Science Olympiad Argentina
2013	7 th International Earth Science Olympiad, India
2014	GeoSciEd VII, Hyderabad, India
	Fifth IGEO General meeting, Hyderabad, India
	Eighth IGEO Council meeting, Hyderabad, India
	 8th International Earth Science Olympiad, Spain
2015	 9th International Earth Science Olympiad, Brazil
2013	

Future plans

2016	35 th International Geological Congress (IGC) planned for Cape Town, South Africa		
	 Ninth IGEO Council meeting planned for Cape Town, South Africa 		
	 IUGS-COGE Commission meeting planned for Cape Town, South Africa 		
	 10th International Earth Science Olympiad planned for Mie, Japan 		
2017	11 th International Earth Science Olympiad		
2018	GeoSciEd VIII, Sao Paulo, Brazil		
	 12th International Earth Science Olympiad planned for Thailand 		
2019	13 th International Earth Science Olympiad planned for the Republic of Korea		

GeoSciEd Conferences

1990 – Formation of the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)

- Senior Officers:
 - Chair: Gerry Cooray
 - Secretary/Treasurer: Dorrik Stow
 - Newsletter Editor: John Carpenter

1993 - The first geoscience education conference:

International Conference on Geoscience Education and Training

- Dates: 20th 24th April, 1993
- Venue: University of Southampton, UK
- Main sponsors: the Association of Geoscientists for International Development (AGID) and the International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Training (COGEOED)
- Additional sponsors: ICSU, ASE (International), ESTA (UK), Geological Society, Geographical Association, BGS plus a wide range of financial sponsors
 - Conference convenor: Dorrik Stow (UK); theme convenors:
 - Geoscience education in schools: Chris King (UK) and David Thompson (UK)
 - Higher Education: Bill Gaskarth (UK) and Brian Daley (UK)
 - Geoscience Training for Business, Industry and Public Service: Tony Reedman (UK)
 - Public understanding of geoscience: Ian Sutton (UK)
- Abstract volume: published by the Geology Department, University of Southampton, UK, 1993

- Proceedings volume: *Geoscience education and training*, ed. DAV. Stow and GJH. McCall, Balkema, Rotterdam, 1996.
- Notes:
 - David Thompson, Nir Orion and Chris King met in a small café to discuss the development of an international association.

1997 – GeoSciEd II

- Dates: 28th 31st July, 1997
- Venue: University of Hawaii at Hilo, Hawai'I, USA
- Conference convenors: John Carpenter (USA), Vic Mayer (USA), Nir Orion (Israel), Frank Ireton (USA) Laure Wallace (USA)
- Proceedings volume: Conference proceedings: second international conference on Geoscience Education, Ed. Fortner, W. and Mayer, M., Ohio State University, USA, 1998.
- Support for production and distribution of Proceedings volume provided by:
 - National Science Foundation, Directorate for Education and Human Resources (US)
 - National Aeronautics and Space Administration, Mission to Planet Earth programme (US) Conference registrations
 - The Ohio State University, School of Natural Resources and Office of Applied Communications
 - The Alphyl Memorial Endowment Fund of the Ohio State University, a fund established in honour of Victor C. and Phyllis C. Mayer.
- Awards for lifetime service to geoscience education:
 - Yolanda Alba de Gonzales (Venezuela)
 - Victor J. Mayer (USA)
 - Emmanuel Mazor (Israel)
 - David Thompson (UK)
- Notes:
 - A group of geoscience educators met in a small restaurant (Uncle Billy's Hilo Hideaway) in a rainstorm to formalise a proposal for an international association, prompted by Nir Orion.
 - This proposal was put to the general assembly at the conference, and was enthusiastically endorsed.
 - This was the formal beginning of an international association for earth science education.
 - Nir Orion and Chris King agreed to lead a development committee that would, among other things, determine the name of the association
 - Later, having discussed different names, including the International Geoscience Education Association (IGIA), the name of the new association was eventually agreed as the International Geoscience Education Organisation (IGEO).

2000 - GeoSciEd III

- Dates: 16th 21st January, 2000
- Venue: University of New South Wales, Sydney, Australia
- Major sponsor: Australian Geological Survey Organisation (AGSO)
- Conference convenors: Malcolm Buck (Australia), Ian Clark (Australia), Gary Lewis (Australia)
- Abstract and Proceedings volume: 3rd international conference on geoscience education: abstract volume. Ed. Ian Clark, AGSO, Canberra, 2000.
- Award for lifetime service to geoscience education:
 - John Carpenter (USA)
- Notes:
 - o The International Geoscience Education Organisation name was formally approved.
 - o IGEO Chair elected: Chris King.
 - o Later, the IGEO logo, website and constitution were developed.

2003 - GeoSciEd IV

- Dates: 10th 14th August, 2003.
- Venue: University of Calgary, Alberta, Canada.
- Major sponsors: IGEO, EnCana Corporation, Canadian Society of Petroleum Geologists Educational Trust



- Conference convenors: Alan Morgan and Godfrey Nowlan
- Abstract and Proceedings volume: Earth science for the global community: conference proceedings. Ed. The GeoSciEd IV organising committee, Calgary, Canada, pp257, 2003.
 - Awards for lifetime service to geoscience education:
 - o Gerry Cooray
 - Ward Neale
- Notes:
 - o IGEO Chair elected: Ian Clark (Australia).
 - The IGEO contribution to the forthcoming 32nd International Geological Congress in Florence, Italy in 2004 was planned.

2006 – GeoSciEd V

- Dates: 18th 21st September, 2006.
- Venue: University of Bayreuth, Germany.
- Major sponsors: IGEO
- Conference convenors: Sylke Hlawatsch (Germany),Gabriele Obermaier (Germany), Ulrike Martin (Germany)
- Abstract volume: *Geoscience education: understanding system Earth*. Volume 48, the German Society of Geosciences, Hannover, 2006.
- Proceedings volume: Abstract volume of GeoSciEd V, 96. Hannover: Schriftenreihe der Deutchen Gesellschaft für Geowissenschaften SDGG.
- Notes:
 - o IGEO Chair elected: Chan-Jong Kim (Korea).
 - Plans were presented for the 1st Earth Science Olympiad, to be held at Seoul National University in Korea in October 2007.
 - Presentations were made to host GeoSciEd V by India and South Africa; South Africa was chosen.
 - Later the Senior Officers decided that IGEO should support:
 - the International Conference for Global Development (GeoDev) to be held in Dhaka, Bangladesh, on the 26th – 31st October, 2009 and
 - the Joint Assembly of Geoscience Organisations in the Americas, to be held at the Iguassu Falls, Brazil, on the 8th - 13th August, 2010.

2010 – GeoSciEd VI

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- Dates: 30th August 3rd September, 2010.
- Venue: University of the Witwatersrand, Johannesburg, South Africa.
- Major sponsors: IGEO
- Conference convenor: Ian McKay
- Abstract volume: Geoscience education/developing the world. University of the Witwatersrand, Johannesburg, South Africa, 2010.
- Notes:
 - IGEO Chair elected: Sylke Hlawatsch (Germany).
 - The IGEO contribution to the forthcoming 34th International Geological Congress in Brisbane, Australia, in 2012 planned.



GeoSciEd VI - IGEO Senior Officers L to R: Shankar, Bronte Nicholls, Chan-Jong Kim, Sylke Hlawatsch, Ian McKay, Roberto Greco. *Photo: Alan Morgan*



GeoSciEd IV delegates at the Royal Tyrrell

Photo: Alan Morgan

Museum of Palaentology, Drumeler, Alberta.

GeoSciEd V delegates. Photo: Alan Morgan

• A presentation was made by India to host GeoSciEd VI, which was approved.

2014 - GeoSciEd VII

- Dates: September 5th 9th, 2014.
- Venue: University of Hyderabad, Hyderabad, India
- Major sponsors: IGEO
- Conference convenor: Shankar
- Abstract volume: *Volume of abstracts,* International Geoscience Education Organisation.
- Notes:
 - IGEO Chair elected: Shankar (India).
 - IGEO Chair elect elected: Roberto Greco (Brazil)
 - The IGEO contribution to the forthcoming 35th International Geological Congress in Cape Town, South, in 2016 was planned.
 - Brazil was elected to host GeoSciEd VIII in 2018.



GeoSciEd VII - IGEO Senior Officers, L to R: Anish Warrier, Robert Greco, Sylke Hlawatsch, Shankar Rajasekharaiah, Bronte Nicholls, Gabriele Obermaier, Chris King.

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International Geoscience Education Organisation (IGEO)

- 1997 The formation of an international geoscience education association proposed and endorsed Chairs of the association development committee: Nir Orion and Chris King.
- 2000 International Geoscience Education Organisation (IGEO) formed (Sydney, January 2000). First General Meeting.

Senior Officers, 2000 - 2003:

- Chair: Chris King (UK).
- Newsletter editors: Laure Wallace (USA) and Mary Dowse (USA)

IGEO logo, constitution and website developed.

2003 Second IGEO General meeting (Calgary, August 2003) Second IGEO Council meeting (Calgary, August 2003)

Senior Officers, 2003 - 2006:

- Chair: Ian Clark (Australia)
- Vice-Chair (retiring): Chris King (UK)
- Vice-Chair (elect): Chan-Jong Kim (Korea)
- Secretary/treasurer: Alan Morgan (Canada)
- Newsletter editor: Bronte Nicholls (Australia)
- 2004 Third IGEO Council meeting (Florence, Italy, August 2004)
- 2006 Third IGEO General meeting (Bayreuth, Germany, September 2006) Fourth IGEO Council meeting

Senior Officers, 2006 - 2010:

- Chair: Chan-Jong Kim (Korea)
- Vice-Chair (retiring): Ian Clark (Australia)
- Vice-Chair (elect): Sylke Hlawatsch (Germany)
- Secretary/treasurer: Alan Morgan (Canada)
- o Newsletter editor: Bronte Nicholls (Australia)
- 2008 Fifth IGEO Council meeting (Oslo, Norway, August 2008)
- 2010 Fourth IGEO General meeting (Johannesburg, South Africa, September 2010) Sixth IGEO Council meeting (Johannesburg, South Africa, September 2010)

Senior Officers, 2010 - 2014:

- o Chair: Sylke Hlawatsch (Germany)
- Vice-Chair (retiring): Chan-Jong Kim (Korea)
- Vice-Chair (elect): Shankar Rajasekharaiah (India)
- Secretary: Roberto Greco (Italy)
- Treasurer: Gabriele Obermaier (Germany)
- Newsletter editor: Bronte Nicholls (Australia)
- 2012 Seventh IGEO Council meeting (Brisbane, Australia, August 2012)
- 2014 Fifth IGEO General meeting (Hyderabad, India, September 2014) Eighth IGEO Council meeting (Hyderabad, India, September 2014)

Senior Officers, 2014 - 2018:

- Chair: Shankar Rajasekharaiah, India
- Vice-Chair (retiring): Sylke Hlawatsch, Germany
- Vice-Chair (elect): Roberto Greco, Brazil
- Secretary: Anish Warrier, India
- Treasurer: Gabriele Obermaier (Germany)

- Newsletter editor: Bronte Nicholls (Australia) Advisor: Chris King, United Kingdom 0
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International Earth Science Education Olympiads (IESOs)

1st Earth Science Education Olympiad

- Dates: 21st 29th October, 2007
- Venue: Daegu and Youngwol, Korea.
- Convenor: Moo Young Song
- Number of participating countries: 8
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

2nd Earth Science Education Olympiad

- Dates: 31st August 8th September, 2008
- Venue: Manila and Bicol, the Philippines.
- Convenor: Miguel Cano
- Theme: Cooptition in Addressing Climate Change
- Number of participating countries: 7
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

3rd Earth Science Education Olympiad

- Dates: 14th 22nd September, 2009
- Venue: National Taiwan Normal University, Taipei, Taiwan.
- Convenor: Chun-Yen Chang
- Theme: Human environment
- Number of participating countries: 17
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

4th Earth Science Education Olympiad

- Dates: 19th 28th September, 2010.
- Venue: Gadjah Mada University, Yogyakarta, Indonesia.
- Convenor: Hendra Amijaya
- Theme: The present is the key to the future
- Number of participating countries: 18
- Chair of the IESO Advisory Committee: Chan-Jong Kim
- Chair of the IESO Coordinating Committee: Moo Young Song

5th Earth Science Education Olympiad

- Dates: 5th 14th September, 2011.
- Venue: Department of Earth Science of Modena and Reggio Emilia University, Modena, Italy.
- Convenor: Roberto Greco
- Theme: Earth Science Renaissance: Science, Environment and Art.
- Number of participating countries: 34
- Chair of the IESO Advisory Committee: Sylke Hlawatsch
- Chair of the IESO Coordinating Committee: Moo Young Song

6th Earth Science Education Olympiad

- Dates: 8-12 October 2012
- Venue: Argentina
- Convenor: Jose Sellés Martínez
- Theme: Energy, Water and Minerals for Sustainable Development
- Number of participating countries: 18
- Chair of the IESO Advisory Committee: Sylke Hlawatsch
- Chair of the IESO Coordinating Committee: Moo Young Song

7th Earth Science Education Olympiad

- Dates: 11-19 September
- Venue: Mysore, India

- Convenor: Shankar Rajasekhariah
- Theme: The Earth is indeed a family
- Number of participating countries: 27
- Chair of the IESO Advisory Committee: Sylke Hlawatsch
- Chair of the IESO Coordinating Committee: Sylke Hlawatsch

8th Earth Science Education Olympiad

- Dates: 22-29 September 2014
- Venue: Santander, Spain
- Convenor: Shankar
- Theme: Sea and Mountains
- Number of participating countries: 24
- Chair of the IESO Advisory Committee: Shankar Rajasekhariah
- Chair of the IESO Coordinating Committee: Shankar Rajasekhariah

9th Earth Science Education Olympiad

- Dates: 13-20 September 2015
- Venue: Poços de Caldas, Brasil
- Convenor: Marcelo Bregagnoli
- Theme: Soil
- Number of participating countries: 27
- Chair of the IESO Advisory Committee: Shankar Rajasekhariah
- Chair of the IESO Coordinating Committee: Shankar Rajasekhariah

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The International Union of Geological Sciences (IUGS) Commission on Geoscience Education and Technology Transfer (COGE)

The Commission was formed in November, 2004 in Boulder, Colorado with the following membership:

- Gary Lewis Commission chairperson (Geological Society of America - USA)
- Wesley Hill Commission secretary and treasurer (Geological Society of America USA)
- Chan-Jong Kim (Seoul National University South Korea)
- Greg McNamara (Geological Society of Australia -Australia)
- Alan Morgan (Waterloo University Canada)
- Chris King (Keele University United Kingdom)
- Hans Albert Dahlheim (Germany)
- Ian Clarke (University of Adelaide Australia)

The website was developed at: <u>http://www.geoed.com.au/IUGSeducation/indexcomm.html</u> by Greg McNamara.

Membership from 2011:

- Jesús Martínez Frías Chair (Spanish National Research Council, Spain)
- Chris King Vice Chair (Keele University United Kingdom)
- Jennifer Nocerino (Secretary/Treasurer Geological Society of America)
- Miguel Cano (Bicol University Philippines)
- Ian Clarke (University of Adelaide Australia)
- Ochir Gerel Mongolian University of Science & Technology, Mongolia)
- Chan-Jong Kim (Seoul National University South Korea)
- Gary Lewis (Geological Society of America)
- Greg McNamara (Geological Society of Australia Australia)
- Alan Morgan (Waterloo University Canada)
- Adriana Niz (National University of Catamarca, Argentina)
- R Shankar (Mangalore University India)
- Ashvin Wickramasooriya (South Eastern University of Sri Lanka)

Membership in 2016:

- Jesús Martínez Frías Chair (Spanish National Research Council, Spain)
- Chris King Vice Chair (Keele University United Kingdom)
- Jennifer Nocerino (Secretary/Treasurer Geological Society of America)
- Miguel Cano (Bicol University Philippines)
- Ian Clarke (University of Adelaide Australia)
- Ochir Gerel Mongolian University of Science & Technology, Mongolia)
- Chan-Jong Kim (Seoul National University South Korea)
- Gary Lewis (Geological Society of America)
- Greg McNamara (Geological Society of Australia Australia)
- Alan Morgan (Waterloo University Canada)
- Adriana Niz (National University of Catamarca, Argentina)
- R Shankar (Mangalore University India)
- Ashvin Wickramasooriya (South Eastern University of Sri Lanka
- Kmar Ben Ismail-Lattrache (University of Tunis El Manar, Tunisia)
- Yamina Bourgeoini (Cadi Ayyad University, Morocco)
- Elyvin Nkhonjera (Community Improvement Project, Malawi)

The latest website can be found at: <u>http://www.iugscoge.com/</u> and is still hosted by Greg McNamara.



The first IUGS-COGE Commission Photo: Alan Morgan



Jesús Martínez Frías – IUGS-COGE Chair

Note: This series of histories is the best recollections of some of those involved. Please email any corrections or updates to the Webmaster.