

IAEG Commission 19

3D terrestrial laser scanning technology in the geosciences

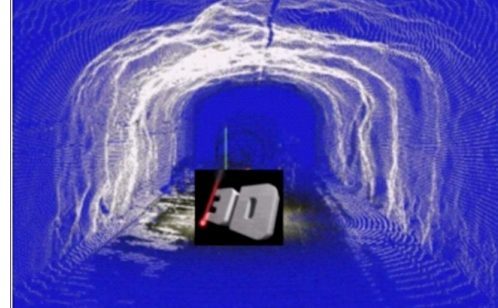
International Association for Engineering Geology and the Environment

Secretary

Siefko Slob MSc
Witteveen + Bos consulting
engineers
PO Box 12205
1100 AE Amsterdam
The Netherlands
00 31 20 312 55 55 (Tel)
00 31 20 697 47 95 (Fax)
s.slob@witteveenbos.nl

Chairman

Dr Kennert Röshoff
Berg Bygg Konsult AB
Ankdammsgatan 20
171 43 SOLNA
Sweden
(Tel) 00 46 8 7595050
(Fax) 00 46 8 7595065
kennert.roshoff@bergbyggkonsult.se



IAEG Commission: 3DLaserScanning

To

Executive committee of the IAEG
Attn. Secretary General of the IAEG
Dr Michel DEVEUGHELE
Université de Marne-la-Vallée
Bâtiment IFI – Cité Descartes
5, boulevard Descartes
Champs sur-Marne
77454 Marne-la-Vallée cedex 2
FRANCE

Date

25-June-08

Subject

Annual Report Commission C19
3D terrestrial laser scanning technology in the geosciences

Your reference

Our reference

Chairman:

Dr Kennert Röshoff
Berg Bygg Konsult AB
Sweden

Secretary:

Siefko Slob
Witteveen + Bos consulting engineers
The Netherlands

Board technical expert:

Dr Quanghong Feng (feng@bergbyggkonsult.se)
Berg Bygg Konsult AB
Sweden

Terms of references:

The commission was defined and accepted at the IAEG Council meeting in Florence in August 2004.

The commission shall concentrate the work to the following issues:

- Analyse the various areas where the technology can be used within the geosciences
- Be a guide for the development of the technology
- A forum for discussion for the practical use
- Establish quality standards for the method

- Establish methods and standards for calibration, accuracy for measurement
- Investigate software tools for processing, analysis and visualisation

Objective:

The main objective of this commission is to provide a framework where codes of practice and working methods of this new technology can be worked out. The target group are (earth science and civil engineering) professionals working within various areas on geoscience-related projects where precise documentation and measurements are needed from the site investigation stage to the construction stage. The laser scanning technique will provide accurate and precise geometry as an input for 3D numerical models and CAD drawings. 3D laser scanning also allows creating very realistic 3D visualisation and animation of objects and scenes, which improves the communication within a project and to the outside world.

Expected date and venue of next meeting

WG 1 will meet in Madrid at the IAEG meeting September 15-19th 2008

Commission activities since last report to the Council

The board has been working mainly within two areas; establishing a working team with specialists in order to present a guide book for use of laser scanning in geosciences. I regret to inform that the interest has so far been up to expectation. The questionnaire send to working group members from the board was also returned by very few members.

Therefore the board has it its own initiative, based on established a first table of contents of what the guide book might include. This list will be discussed and finalised at the Commission meeting in Madrid coming September 2008.

Establish a contact network

A network was established in Nottingham Commission meeting. The network includes more than 20 people from US, Europe and Asia and is still growing.

Establish a web site

So far the web site established by IAEG is used for the Commission work. Unfortunately the web site has not been updated mainly due to that the Secretary got a new position and was short of time. The board needs to take new actions in order to keep the web site updated.

Commission meeting in Madrid

The Commission meeting in Madrid will mainly focus on the development of the guide book. People are invited to present their own work for discussions.

Contact with other organisations

Contact has been established between IAEG and ISPRS International Photogrammetry and Remote Sensing to find mutual points of interest. The research organization Svebefo in Sweden has taken the initiative to support a study where the use of laser scanning and photogrammetry in geosciences will be compared.

Assessment for the period 2008-2009

Consult the text above.

Information about achieved and foreseen publications for 2008

An important presentation regarding laser scanning technology and its application is presented in the PhD theses by Siefko Slob. This thesis will be defended at the Delft University of Technology in the course of 2008.

Suggestions to the executive committee for the period 2007-2010.

No suggestions at the moment

Yours sincerely,

Siefko Slob
Secretary C19