

**IAEG Commission 19**  
**3D terrestrial laser scanning technology in**  
**the geosciences**

International Association for Engineering Geology and the Environment

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**To:**

To whom it may concern  
Members of Commission 19

**Date:**

Sept 24, 2008

**Subject**

Minutes of Commission meeting at EuroEngeo2008, Sept. 16, Madrid, Spain

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**Commission meeting**

**IAEG Commission 19 - 3D terrestrial laser scanning technology in the Geosciences**

Date: Sept. 16, 2008

Time 11:00-13:30

Location: Madrid, Spain, EUROENGE02008

Present:

Kennert Röshoff,  
Feng Quanhong  
Daniel Morfeldt  
Huang Runqiu  
Jeffrey Keaton  
Andreas Gaich

**Agenda**

1. Opening of the Commission
2. Presenting of the board and members
3. Objectives of the commission
4. Working program
5. Work progress
6. Technical presentations from the members
7. Conclusions and closing

Appendix 1. List of the attendance

## **1. Opening**

Dr Kennert Röshoff, chairman of the Commission opens the commission meeting and welcomes all the presenters.

## **2. Presenting the board of the Commission**

The members of the Commission present themselves:

- Chairman: Dr. Kennert Röshoff, from ÅF-Infrastructure AB, a consulting company based in Stockholm, Sweden.
- Secretary: Ir Siefko Slob MSc, from ITC, Enschede, The Netherlands, not attending this time.
- Technical adviser of this meeting: Dr. Quanhong Feng, from ÅF-Infrastructure AB, a consulting company based in Stockholm, Sweden.

Also all other persons in this meeting present themselves briefly. A list of all presenters with name, affiliation and email address is given below.

## **3. Objectives of the Commission**

Röshoff explains the main objectives of IAEG Commission 19, which are the following:

- Investigate the various areas for 3D scanning technology to be used within geosciences
- Be a guide for the development of the technology
- A forum for discussion of ideas and practical use
- Establish quality standards of the method
- Establish methods and standards for calibration, accuracy etc for measurement
- Requirements for Hardware and Software tools for measurement, processing, analysis and visualization

## **4. Work program**

The main activities of the Commission consist of the following:

The Commission 19 has already delivered a document in September 2008 to IAEG with the main results.

## **5. Work progress**

The first C19 commission meeting was held in May 2005 in Lyon, France, and the second in September in Nottingham, UK. Those minutes of C19 Commission meeting can be found on the IAEG website under C19.

In the former meetings, several Working Groups (WG) have been suggested:

WG1: Investigation of the present status and potential application of 3D laser scanning;

WG2: Data, Hardware and software;

WG3: Survey

WG4: Monitoring

WG5: Rock Mass Characterization

A report about C19 working progress has been written by Kennert and Slob, and reported and submitted to IAEG in Sept, 2008.

## **6. Technical Presentations of Runqiu and Quanhong**

\* Professor Huang Runqiu delivers a presentation on application of 3D laser scanning for a large dam, and Wen-Chuan Earthquake;

\* Dr. Feng Quanhong present the up-to-date laser scanning techniques and project examples.

## **7. Discussion and future work**

Discussion/ideas to be done in the future:

In 2008 a final report should be published of this Commission 19. This could be in the form of a Code Book for 3D terrestrial Laserscanning in the Geosciences. It should be covering the state-of-the-art in the technology.

A suggested Table of Contents is according to Kennert:

1. What is 3D terrestrial laser scanning

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2. Terminology

3. Standards/specifications

4. Links to manufacturers and software

5. Applications

a. Survey

b. Monitoring

c. Rock mass characterization

d. ....

The results can be in the form of a practical manual being published in the IAEG bulletin for example.

Next C19 meeting is planning to be held in IAEG2009-International Symposium in Cheng-Du, China in September 9-11, 2009.

Appendix 1  
Attendance list:

<b>Name</b>	<b>Organization</b>	<b>E-mail</b>
Kennert Röshoff	ÅF-Infrastructure AB	kennert.roshoff@afconsult.com
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Huang Runqiu	Chengdu University of Technology	<a href="mailto:hrq@cdut.edu.cn">hrq@cdut.edu.cn</a>
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