

# THE REPORT OF 4<sup>TH</sup> ISM COMMISSION ACTIVITY FROM 2007 TO 2010

(between the ISM Congress in Budapest and Congress in Sun City)

After the last Congress in Budapest (Hungary) three meetings of the Commission were organized (Table 1). The Meeting in year 2008 was held at the Technical University Bergakademie Freiberg/ Germany and it was organized during the 9th Geokinematic Day Conference. The second meeting took place in Exeter at the Camborne School of Mines in July 2009. The third meeting was held in Poland in June 2010.

**Table 1. List of meetings of the commission 4 in the last 3 years.**

Venue	Members	Guests	Delivered presentations	Chairmen
Freiberg/Germany	9	0	2	R. Hejmanowski
Exeter	Joint meeting	-	3	M. Livingstone-Blevins
Cracow/Poland	6	0	1	R. Hejmanowski

Just after the ISM Congress in Budapest the new workplan of the commission was delivered. This workplan was established on the basis of suggestions of the members. The document was sent to all commission members in English.

The activity of the commission on the level of mining industry was in the time of three years enlarged. In September 2009 the special session during the World Mining Congress in Krakow was organized by the members of the commission. We had about 12 technical paper presentations. The Vice President of the ISM (Prof. Axel Preusse) lead the session. It was really important for the profession of mine surveyors to organize this session on the mining congress. Every two years the Commission members Co-organize an domestic mine surveyors conference in Poland.

The Commission membership has changed. During the last 3 years 5 new members joined the commission and 4 members have resigned (Table 2).

**Table 2. New members of the commission 4.**

✓ Alex Bals, from Anglo Gold Ashanti / South Africa (Kimberley, ZA 2008),,
✓ Jan Blachowski, from Wroclaw Technical University/Poland (Exeter, GB 2009),
✓ Agnieszka Malinowska, from AGH University of Science and Technology in Cracow/Poland (Exeter, GB 2009),
✓ Wojtek Skoblinski, from KGHM Polska Miedz S.A. /Poland(Exeter, GB 2009),
✓ Karsten Zimmermann, from DMT / Germany (Szczyrk, PL 2010),

The number of members is stable. We have at the moment 54 members. Unfortunately there are some problems with the communication between members. I experience that we invited the new members into the commission and they were passive from the beginning. Only about 30% of the membership is active in meaning the mail communication. That is why I would suggest to invite the new members for (let say) probationary time for one year in order to check their activity and to check their will to work in commission. This active part of the membership may improve in the future the activities of the commission.

In the work plan for the 4<sup>th</sup> Commission in the period between the ISM Congress in Budapest (2007) and the congress in Sun City (2010) where were worked out some rules and techniques which have been used in the ISM countries to predict land subsidence and to assess structures damage in mining areas.

As a part of this issue the work plan of best practices in deformation prediction was developed. Guidelines consist of several parts. In the first part was concluded a review of methods of rock mass deformation and ground surface prognosis caused by underground mining used in the world. Review concerned mainly numerical and empirical prediction methods and the approaches based on the influence functions. The analysis of efficiency of various methods in solving practical engineering problems related to risk assessment in the mining hazarded areas was presented. Furthermore the legal aspects governing the responsibility of mining companies for damage to buildings and technical infrastructure in various countries around the world were discussed. At the end an attempt were done to define optimal procedures of deformation prediction, which should in future become a guideline for good practice in this field.

The development discussed at last meeting of the Commission (in June 2010) requires further work, which should include:

- Publication of a shortcut in the international journal,
- Supplement to the methods and legal aspects omitted during the previous work (need of appellation to colleagues in the ISM for support and a broader discussion of the information),
- Development of comprehensive guidelines of good practices in the deformation prediction,
- Raise funds to print edition of good practices,
- Print "good practices in land subsidence prediction" under the auspices of the ISM.

It was not possible to rich all goals planned in 2008 but some of the goals could be modified and pushed to the next workplan.

There are some ideas for the activities of the commission 4<sup>th</sup> in the next 3-years period.

- The compilation of important and interesting information from meetings, conferences around the world and publishing them in magazines in different countries. Chairman of the Commission should be responsible for the information collection. Members of the Commissions will be responsible for publication in the domestic journals if such a possibility would exist. Therefore, the Chairman of the Commission asks for discussion on such a proposal via e-mail. In Poland, such information could appear in one of two major mining journals. Perhaps would be possible to simultaneously create a newsletter of IV Commission on the ISM web site.
- Stimulate activity in the Member States by proposing and conducting sessions under surveying and mining conferences at the national level. A similar session under the auspices of 4th Commission in 2008 was led by Vice President of ISM Axel Preusse during World Mining Congress in Krakow (<http://www.wmc-expo2008.org/en/node/654>).
- Joint publications of 4th Commission's members sharing experiences from different countries.
- Publication of good practices in deformation prediction.
- Development of good practices for deformation measurements (rock mass and land surfaces stabilities in the mining induced areas, slope stability).