

**Report to the 32nd General Assembly
FIG Working Week in Eilat, Israel 2009**

FIG Commission 2 – Professional Education

Report of Activities 2008-2009

1. General

The Commission 2 Work Plan 2007-2010 building on the experiences of the previous period tries to fulfil and implement the FIG Council Work Plan. Commission 2 in general aims:

- To perform needs analysis of Commission representatives and FIG Academic members
- To develop further the FIG Surveying Education Database and facilities using educational and internet standards
- To organize annual workshops on actual topics related to education and training
- To investigate the use of information and communication technology to support networked professional education
- To organise, jointly with other Commissions, Regional Summer Schools for solving problems, filling educational gaps and for building communities within young professionals.

To support the development of the publication, the Commission will also conduct:

- Workshops
- Summer Schools
- Joint Projects.

2. Activities

Working Week 2008: Integrating generations

14-19 June 2008 Stockholm, Sweden

e-Learning: Sharing Good Practices

11-13 June 2008 Enschede, The Netherlands

Summer School on Urban 3D modelling

23-29 August 2008 Szekesfehervar, Hungary

Preparation of the Conference on

Navigating the Future of Surveying Education

26-28 February, Vienna, Austria

Preparation of the Working Week 2009

Surveyors Key Role in Accelerated Development

3-8 May, 2009 Eilat, Israel

3. Working Groups

Working Group 2.1 – Curriculum development

Policy issues

- To support the mobility among professionals, teaching staff and students using credit transfer.
- To support the implementation of „Bologna” changes (BSc / MSc / PhD / Professional masters) and recognition.
- To facilitate the harmonization of curricula.
- To define a “core knowledge base”.
- To guarantee life-long learning with educational and training services.
- To serve the needs in the new professional challenges.
- To exchange ideas on Quality Management and Accreditation.

Chair : Prof Bela Markus (Szekesfehervar, Hungary), email: mb@geo.info.hu

Activities

Working Week 2008: Integrating generations
14-19 June 2008 Stockholm, Sweden

The Working Week addressed many of the issues facing both professional surveyors and educators in the next years. These include questions related to the need of getting young people interested in surveying and geomatics, what is the role of modern technology in professional education and training, how to keep the professional qualifications up to date, need for capacity building – all issues of great interest for FIG and the organisers.

As Swedish surveyors are very successful in the fields of real estate management and valuation we were happy to see at the technical sessions their experiences in different joint educational projects, their showcase how Swedish educators have a strong interest in assisting surveyors and land related professions in developing countries.

During the Working Week three technical sessions were organized by Commission 2. After the review of the abstracts, 21 presentations were accepted and 17 papers presented. The main topics were: Curriculum Development, Educational Case Studies and Educational Projects. Commission 2 co-operated with other Commissions in two additional Technical Sessions: TS 2F - Young Surveyors and TS 3G – Capacity Building. More: <http://www.fig.net/fig2008/>

Summer School on Urban 3D modelling
23-29 August 2008 Szekesfehervar, Hungary

The Summer School aimed to give an overview of data acquisition, data processing and modelling methods related to 3D modeling in urban environments. 40 students attended from abroad and 10 from Hungary. For 27 August 2008, a one-day conference has been arranged in order to give a top quality overview on new methodologies in data collection and modelling.

The venue was the UWH GEO's Knowledge Center on Land and Geoinformation. Lectures delivered by leading representatives of the 3D arena including Eurosense, LEICA, Varinex,

Laservision/Riegl, YonaPMS, András Osskó, the chair of FIG Commission 7 as well as Prof. Franz Leberl, chief scientist of Microsoft' Virtual Earth program.

The event was free to the public thanks to the prominent donor organisations. Major sponsor of the conference was Microsoft. More information and the recorded presentations are available at the website: <http://www.geo.info.hu/urban3d/>

Working Group 2.2 – e-Learning

Policy issues

- To explore the movement from traditional face-to-face teaching towards an integrated learning environment, the changing role of the academic staff.
- To discuss the technical, political, legal, organisational and cultural problems of e-Learning.
- To exchange experiences on content development methods (Multimedia, CBT, Quizzes etc) and student support (Virtual Club / Library, Communication techniques, Teamwork tools).
- To identify the Educational Portal functions
- To disseminate Educational Metadata

Chair: Liza Groenendijk, ITC (Enschede, Netherlands), email: groenendijk@itc.nl

Activities

e-Learning: Sharing Good Practices

11-13 June 2008 Enschede, The Netherlands

From the 11th to 13th of June 2008 a group of international professionals engaged in e-learning and distance education came together in ITC for the International Workshop Sharing Good Practices: e-learning in surveying, geo-information sciences and land administration. The organisation of the workshop was a combined effort of Commission 2 and Commission 7, and the International Institute for Geo-information Science and Earth Observation (ITC) in the Netherlands. The Netherlands Cadastre, Land Registry and Mapping Agency sponsored the event.

The program consisted of keynote speakers, technical sessions, hands-on sessions, demonstrations and guided discussions. The organisation received 30 accepted contributions and 70 participants, from 27 different countries, participated actively in the various workshop sessions.

Opening

The workshop was opened by Prof. Martien Molenaar, Rector of ITC and FIG President Prof. Stig Enemark delivered his opening address through video conferencing from Denmark.

Key notes

As first keynote speaker was welcomed Dr. Nicholas Frunzi, Director of Educational Services, ESRI, USA. Dr. Frunzi gave an overview of ESRI's developments in educational services starting with instructor-led classroom training in 1988 to the ESRI Virtual Classroom today and the Blended Learning with ESRI Press in the future.

Prof. Bela Markus of the University of West Hungary, Chair of FIG Commission 2, was the second keynote speaker. After introducing the concept of e-learning, he discussed the status, the trends and the importance of business models in e-learning. He stressed the importance a business model of re-using and sharing resources to build sustainable courses within networking partnerships.

The keynote addressed by András Osskó, Chief Advisor, Budapest Land Office and Chair FIG Commission 7, focussed on the importance of changes in the education of land surveyors. Interest in traditional land surveying is decreasing, while interest in land administration, on the other hand, is increasing. Osskó made a plea for lifelong learning which is necessary not only for individuals but also for institutions to keep the knowledge of their staff up-to-date.

Technical Sessions

Based on the content of the accepted contributions the following technical sessions were offered:

- Good practices in e-learning and distance education
- Engaging in e-learning
- Continuous Professional Development
- International Cooperation and/in e-learning

During the workshop dinner the Best Paper Award was handed over to Dr. Henny Mills of Newcastle University, for her paper entitled: A Virtual Surveying Field Course for Traversing, written together with David Barber. The paper describes an innovative e-learning tool developed for a Geomatics degree course. It was considered an excellent example of how a virtual fieldwork tool can support student understanding and prepare for real fieldwork.

Hands on sessions

One afternoon of the workshop was reserved for the Hands-on sessions. Participants could choose from the following 4 different sessions:

1. Captivate® for Animations and Simulations
2. Creating a Wiki
3. Quick and easy lecture video recording
4. Communicate. Collaborate. Educate with Elluminate®

The workshop on Captivate attracted the highest number of participants. The workshops were followed by a demonstration of the e-learning activities of The Netherlands Cadastre, Land Registry and Mapping Agency.

Discussion Sessions

At the end of each day participants came together in so-called home groups. These home groups were formed to create an informal platform for discussion and exchange of experiences and to formulate points for discussion. Each home group was guided by a moderator.

Conclusions

The conclusions of the four home groups were presented during the Closing Session and summarised by Chris Paresi, Head of the Department of Urban and Regional Planning and Geo-information Management at ITC. The outcome of the discussion can be summarised as follows:

1. *The importance of partnerships*

Working together, sharing of experiences and resources, is considered of great importance for the success and further development of e-learning in the field of surveying, geo-information science and land administration.

The term Thematic Network and the e-learning concept, Community of Practice, were also proposed in this context.

More in particular were mentioned:

- Explore cooperation between professional organisations FIG, ISPRS and ICA
- Recognition of e-learning material and courses
- The importance of quality assurance
- The need for a credit exchange system
- The role of open source
- Sharing of Contents
- Stronger partnership between Academia and Professionals
- The need for an e-learning infrastructure
- Promote a business model of re-using and sharing e-learning courses and courseware

2. *E-learning as a tool for Continuous Professional Development*

E-learning is considered an excellent tool for continuous professional development and life long learning, especially in the rapidly changing working field of the land professional.

More in particular were discussed:

- Nano-units of (e-)learning: small focussed training units, for particular learning needs
- “Immediate” implementation of learned skills by professionals
- The changing meaning of learning and how to achieve this
- The strong link between e-learning and knowledge management
- Online communication and collaboration tools for exchange of experiences and mutual learning
- Blended approaches preferred

3. *E-learning to engage young surveyors*

An issue of concern within FIG is the decreasing interest of university students in the land surveying profession. Universities and professional training institutions need to review their education according to new requirements and students interests. E-learning may contribute to motivate students to join the profession.

Points mentioned by the groups:

- Online communication and collaboration tools for interaction, group work, peer exchange, supervision
- Students used to digital learning and communication
- Global interest of students
- Online mentoring and support through Communities of Practice
- Prepare students for Life Long Learning
- An opportunity for students from developing countries

4. *Define the field of e-learning within FIG*

The workshop made clear that a lot of knowledge has been accumulated in recent years in the field of e-learning and surveying, geo-information sciences and land administration. Many lessons have been learned and it is the right time now to analyse these lessons and publish the findings.

More in particular it was suggested:

- Prepare a FIG Publication on the topic of e-Learning
- Bring the all experts together in a wiki environment and write a reference book on e-learning!

5. *Some problems and final remark*

Many success stories in e-learning were presented during the workshop. But of course there were also many critical issues to discuss.

Some of the identified shortcomings of e-learning:

- Language a bottleneck
- Cultural differences in learning style and content
- E-learning is a tool and learning is the objective
- For practical teaching e-learning is considered of limited use
- E-learning not really rewarded by training institutions and universities. Developing e-learning courses and material is demanding in time and expertise.

Proceedings

Proceedings with the full papers are available on CD ROM. A paper publication of the Proceedings produced in the second half of 2008 including the outcome of the discussion sessions. All presentations can be found on the workshop website: http://www.itc.nl/fig_elearning2008.

Working Group 2.3 – Educational Management and Marketing

Policy issues

- To observe and register the new challenges of our profession respond to them.
- To survey the needs for academic members and provide required services.
- To analyse the market and respond by LLL services.
- To promote the need on CPD (Continuous Professional Development).
- To disseminate experiences in recruitment and marketing.
- To distribute know-how in Project and Quality Management.
- To encourage young surveyors (students) on their career.
- To serve ALUMNI and use its power.
- To build twinning and thematic networks.

Chair: Gert Steinkellner, BEV (Vienna, Austria), e-mail: gert.steinkellner@bev.gv.at

Activities

Preparation of the Conference on

Navigating the Future of Surveying Education

26-28 February, Vienna, Austria

Working Group 2.3 of FIG Commission 2 on Educational Management and Marketing and the Austrian Society for Surveying and Geoinformation (OVG) is organising a Conference under the motto "Navigating the Future of Surveying Education". The venues are the lecture halls of the Federal Office of Metrology and Surveying (BEV) in the centre of the City of Vienna, Austria.

Approximately 30 speakers will share their experiences in professional education on the following topics:

- Marketing of Professional Education
- Availability of Continuous Professional Development
- Educational Networks – Globalisation of Surveying Education
- Quality Assurance in Surveying Education & Training
- New Methods for Knowledge Transfer
- Scope of Competences in Professional Education

During the conference additionally two short-term workshops will be outlined on the topics

- "Students Where Are You", and
- "Student Today – Status & Vision"

In the first mentioned workshop the reasons for the decreasing number of students will be analysed and proper strategies for the recruitment of students and the marketing of professional surveying education will be elaborated. The second one – performed by students – examines the situation of students in our professional fields and tries to outline visions for an optimised professional education. Both topics of the workshops have a high relevance in most of our countries.

Keynote speeches will be given by the Austrian Representative of the Bologna Follow Up Group, Gottfried BACHER, by the President of FIG, Prof. Stig ENEMARK, by the chair elect of FIG Commission 2, Steve FRANK, by the ESRI Director of Education, Michael GOULD, and by the Rector of the University of Technology in Graz/Austria, Prof. Hans SUENKEL.

Heads of Organizing Committee are Mr. Gert Steinkellner & Dr. Reinfried Mansberger. More details about the conference (costs, accommodation, registration procedure, programme, etc.) are available at the conference homepage: <http://fig09.ovg.at/>.

Working Group 2.4 – Real Estate Valuation and Management Education (Joint WG with Commission 9)

Policy Issues

- Surveyors are traditionally well educated to basics of real estate legislation and markets. In the present world requirements for knowledge in real estate are expanding fast. It is not anymore possible to educate surveyors to all traditional tasks in unified programs but the programs have to have real options where students can really specialise in real estate economics. This is needed in the market (thousands of new jobs) and examples of some countries show that this kind of education is possible and also very attractive for students and markets.

Chair: Prof. Arvo Vitikainen (Helsinki, Finland), e-mail : arvo.vitikainen@tkk.fi

Co-Chair Prof. Kauko Viitanen (Helsinki, Finland), e-mail : kauko.viitanen@tkk.fi

Activities

It was our intention (at Helsinki University of Technology) at the autumn candidate seminar of the study program of the real estate economics to collect basic material for the final report of WG 2.4 Real Estate Valuation and Management Education. We meant to prepare a

preliminary report for the Eilat Working Week based on these papers. Unfortunately the autumn seminar had very few participants and the topic was experienced rather difficult, so the plan did not realise. We will try to prepare for the topic more carefully and make the students of the spring seminar enthused about the topic. We would then have a good final report for the Sydney congress. Further, we did not have resources to plan and realise a seminar or workshop on the WG 2.4 subject field for the coming spring. The reason for this was simply lack of time (along with my normal responsibilities I did the preparation work and obtained financing for an extensive research programme on the effects of land consolidation). Kauko Viitanen, for one, has been tightly occupied with the preparation of the university organisation reform.

4. Communication

Newsletters: A special edition of Commission's Newsletter supported FIG WW in Stockholm.

Commission 2 website: In June 2007 the new website (www.geo.info.hu/fig2) was introduced

5. Calendar of Commission 2 Events

- Workshop on Curriculum Development
Scientia Est Potentia - Knowledge is power. FIG Commission 2 Symposium,
7-9 June 2007, Czech Technical University, Prague, Czech Republic
Web site: <http://geoinformatics.fsv.cvut.cz/>
- Workshop on e-Learning
11-13 June 2008, Enschede, Netherlands
Web site: http://www.itc.nl/fig_elearning2008/
- Workshop on Educational management and marketing
26-28 February 2009, Vienna, Austria
Web site: <http://fig09.ovg.at/>

Prof. Bela Markus
Chair of FIG Commission 2

January 2009