# EDUCATIONAL DATABASE AS A TOOL FOR DESCRIBING AND COMPARING SURVEYORS' CURRICULA AROUND THE WORLD

*Prof. Kirsi VIRRANTAUS, Finland*

**Keywords:** surveyors' curriculum, metadata on curricula, educational data base.

## ABSTRACT

Educational database has been developed and implemented first by Commission 2, especially by Professor Stig Enemark (Aalborg, Denmark), the past Chair of the Commission. Data collection and production of the first version was an enormous work. Educational data base was then during the year 2000 redesigned and implemented as a real data base and finally posted on Internet. The latest version can be viewed by anyone and updated by the universities having the access code and password. In the latest version the traditional descriptive and statistical data about universities and their curricula are stored in a data base and the user can make formalized queries to it. The web sites of surveying departments in the data base and the FIG academic members are linked from the SEDB, so that users can view directly the original information.

The basic design and implementation seems to be very good. The user interface is easy and anybody can learn it immediately. However, already a quick introductory use of the system reveals the shortcomings: the data base is – at least not yet - not up-to-date, a lot of information is missing or outdated. The motivation of the user is decreasing immediately when he or she realizes that one can not rely on the information. Another shortcoming of the data base is that the data contents does not describe the curriculum itself very much. Depending on the users´ needs more information can be required. The recommendation of this paper is that the use of SEDB should be analysed and the user interface as well as the data contents of the data base should be redesigned. Also the updating procedure must be designed so that the data contents of the data base is up-to-date.

The first thing to analyse is the potential users of the SEDB, who are they? We can ask, "who are the users we want to offer this information?". First, we want to give information for students searching for a foreign university for an exchange year abroad. Another group of users are the university teachers and administrative persons developing the university curricula and looking for references. If we think more closely, for example, the data requirements of these two user groups, the core thing they want information about is the curriculum contents. Of course they also want to know the basic data which already exist in the data base, the level of the degree, the length of studies and the main subjects of curriculum as well as the amount of teachers and students and some other characteristics. But in addition to this they surely want to know some more detailed information about the course contents, to be able to decide whether the curriculum is suitable for him or her or not. This is not a very small task for a surveying department but if we could offer a model for describing at least on some level

also the contents and subjects it could be possible. Also the universities need some "babysitting" so that they really continuously update their sites.

As we know surveyors´ educational programs vary a lot. Professor Hans Mattsson (Stockholm, Sweden) gave a good presentation about the different profiles in his presentation at CLGE seminar in Delft, November 2000. There exist at least three different profiles: the UK type, the Scandinavian type and the German type. It is clear that these types can not be compared as such, but only with the curricula belonging to the same approach. Also it is clear that we have to make a distinction between M.Sc. programs and B.Sc. Programs. And more, when two curricula belong to the same main approach and represents the same academic level, they may vary in the weighting of different subjects. Some examples can be given: in some universities IT-technology is very much emphasized and IT-related subjects like Geoinformatics and Remote Sensing have wide programs: in some other universities the traditional subjects of natural sciences are well represented and it means profound studies in Mathematics and Physics. Also we have universities emphasizing languages or more wide freedom of choice in the basic studies. Some universities support networking with other faculties and departments and thus produce graduates with more mixed studies. This variety causes the need for more detailed information in comparison of programmes.

In this presentation I do not give a ready made solution but rather I want to give some ideas about developing the SEDB towards more useful tool in describing and comparing curricula around the world. The first proposal was already presented in another presentation by the author at Malta seminar. In my paper titled as "The Role of Information Technology in Surveyors Curriculum – The Principle to learn "One Step More than Necessary" " I tried to describe in detail the topics which should be covered in the surveyors´ curricula on Information Technology. The proposal was to analyse all subjects – both the core subjects in surveying like Geodesy, Photogrammetry, Cartography, Real Estate Technique, Law, Land use planning etc., and the supporting subjects like Mathematics, Physics, Economics, Languages – in the same detailed level, and finally produce a map of all possible subjects and themes in surveyors curriculum. With this "map" it could be possible to show the special weightings in different universities. The first idea was to produce a graphical user interface to the SEDB which could be based on this map of different subjects. This idea has not yet been developed further, but will and I wish all participants who are interested on this theme "metadata of surveyors curriculum" to continue the discussion and work together with Commission 2. Our goal is to prepare plans for the further development of SEDB, those plans will be reported in Washington Congress.

**CONTACT**

Professor Kirsi Virrantaus
Helsinki University of Technology
Department of Surveying
P.O. Box 1200
FIN-02015 HUT
FINLAND
Tel. + 358 500 463 729 or + 358 9 451 3912
Email: Kirsi.Virrantaus@hut.fi