

Participants are introduced into complex view of the waste issue that includes collection and disposal of mixed waste and hazardous waste and waste environment (according to ISO 14000).

9. Healthy, security and safety (part of course r-6).

Participants are familiar with the issue of health care and the complex view of safety issue.

Care about users of buildings (services to users) (part of course r-6).

Participants are familiar with the issue of health care and the complex view of safety issue.

10. Internal logistic.

Participants are introduced into complex issue about support of employees/building users in the branch of administrative logistic.

11. FM planning (part of course r-7).

Participants are familiarized with FM processes and their planning.

12. Analysis and FM implementation into projects (part of course r-7).

This module is about complex knowledge of facility management, project management and FM implementation into company.

13. Organization and management of the company in the FM field (part of course r-8).

In this part is taught complex issues about managing Facility management in the company.

14. ICT support of FM (software solution) (part of course r-9).

This part includes the view of possibilities of ICT support of FM, ability to evaluate the current support and its renewal (or customize).

15. Human factor in FM (part of course r-10).

The aim is to prepare facility managers and specialist for negotiation with clients, providers and municipality.

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EDUCATION IN THE FIELD OF FACILITY MANAGEMENT

“The profession of a facility manager is functioning at the grown-up age. In practice, it requires the qualification and knowledge in the field of facility management”. (www.bifm.org.uk)

One of the objectives of the European Standards, in particular the forthcoming third part, is to improve the services of facility management. One of the conditioning factors in achieving this objective is the qualification of facility managers – the professionals who manage the services or carry them out directly. This brings us to the question of education in the field of facility management, primarily at high school and university level. Graduate facility managers with theoretical knowledge, having gained experience in practice, become highly qualified experts in the field of facility management.

This article is an overview of the status quo of education in the field of facility management in Slovakia.

The aim of the organization dedicated to managing supporting activities, in the form of facility management (in/outsourcing), is not only to optimize operational costs, but more importantly, to improve services rendered. The definition of the quality of facility management services has already been questioned by the European Standard STN EN 15221-2, but it failed to indicate exactly how it can be determined. The process of determining the quality of facility management services is specified by the new part of European standard EN 15221-3, entitled “Guidance on Quality in Facility Management”. Its goal is to give instructions for achieving, improving and measuring the quality of facility management services.

In the forthcoming standard, the quality is defined as the level of fulfillment of the prescribed requirements, as defined by a client, customer, an ultimate user or organization. These requirements are based on the needs and expectations of users in the field of facility management services. The information about the quality of the provided service can be obtained from the key performance indicators (KPI).

A decisive factor for improving the rendered services is the qualification of employees, by whom these services are performed in the capacity of facility managers. The facility managers should be technically oriented specialists, having knowledge in the field of management and construction economics. A good facility manager is a person with rich practical experience, i.e. someone who is continually acquiring more information about facility management by means of further education. Surely this is the only way.

Facility management has been applied in the world for a longer period than the age of the adult man. Therefore, the aforementioned motto conveys well that the profession of the facility manager is functioning at the grown-up age. However, attaining “maturity” in the above-indicated profession, and also the importance placed on the qualification and knowledge, are proportionally “growing”. The profession of a facility manager at the grown-up age is known in countries of the European Union, but especially in one of the early homes of fa-

cility management, the USA, where it has already been applied for many years. As far as the post-communist countries are concerned, this profession can be likened to the learning process of a schoolboy. It is obvious that the need for education is of greatest importance for the schoolboy, whose experience is not as extensive as that of the adult man.

Both in my professional undertakings, as well as through my personal contacts, I have been well acquainted with the demands of the providers of facility management services. These demands include the desire to supply new facility managers into practice. Individuals who, after gaining appropriate experience in their jobs, would have the knowledge and experience to enable them to operate as qualified workers. As facility management in Slovakia gradually penetrates into the awareness of professionals, so the demand for education in schools proportionally grows in this field.

Nowadays, organizations have been established which offer different courses of study to the public, aimed at the individual development of citizens within the lifelong education in the field of facility management. However, this task of educating would be more effective if assigned primarily to high schools and universities. A reverse model should be applied as follows: school leavers and graduates, i.e. facility managers who are well-equipped with the theoretical knowledge, would become high-qualified specialists in the field of facility management, after acquiring experience in practice. On the basis of their professionalism, they would be able to fulfill the expectations of organizations, to the effect that the provision of facility management services would be improved.

So what is the situation in Slovakia regarding the education of facility management?

The answer to this question is detailed briefly in the following examples, informing not only on education in our country, but also in neighbouring and other countries where facility management has been long functioning.

The first university in Slovakia in which facility management was incorporated into the curriculum, was the Faculty of Civil Engineering at the Slovak University of Technology in Bratislava, which, in 2004, saw the subject introduced as a voluntary course. Since that year, students have been regularly elaborating their theses, in which they have been dealing with the application of facility management in building sites.

At the Faculty of Civil Engineering, the subjects closely associated with facility management (energetic audit of buildings, operation and maintenance of buildings) are taught within various programmes of study at engineering level. According to Prof. Petráš, for the purpose of education in the field of facility management, it is necessary to integrate all of the partial disciplines from the field into one single programme.

This should be done in stages, and the postgraduate course should be offered in the first place to university graduates who are already pursuing such an activity in practice.

The first step in introducing a facility management study programme is the implementation of a postgraduate course, designed for both graduates of our university, as well as for professionals from the field. During the academic year 2009/2010, a total of 36 undergraduates participated in the programme. Of great interest from this academic year we are opening in each academic year postgraduate course. Overall, the end of 2011 completed postgraduate studies in 100 graduates. The postgraduate course also met with a very good response.

The study programme is divided into 5 sections: The Introductory section focuses on facility management itself, with participants being acquainted with its history, its forms of application (in / outsourcing) and also with the European Standards in Facilities Management. The section aimed at Energetic Management is devoted to the energetic audit, certification, and to the monitoring of buildings. An important part of the responsible work of facility managers is quality, which is covered in regular lectures within the section dealing with the Managerial Quality System. The technical report is incorporated into the section aimed at the Maintenance of buildings. Other important components of the performance of a facility manager are communication, control of situations and competence. The issue of personal management is presented to participants in the Human Resource Management section.

Through the mutual relationships established with the University of Applied Sciences in Kufstein in Austria, and as part of the SOCRATES exchange programme, the students completed a one-term study abroad, aimed at gaining knowledge in facility management. Many of them have since become successful facility managers. Bilateral agreements are also in place for teachers, within the University of Kufstein and the University of Bolton.

Within the grant system of VEGA, several scientific projects were elaborated at the Faculty of Civil Engineering, out of which two research projects related to facility management were solved by a group of teachers. In 2005–2007, the project entitled “The Optimization of Costs for the Management of Buildings Implemented by a Facility Management Method” was solved. Its underlying aim was to ensure the systematic approach to the facility management method by using the project management principles. The result of the research was processed in the form of a monograph, with the same title as the research task. In 2008-2010 the scientific project with the title “Application of the facility management method in the modeling of costs for the maintenance and reconstruction of buildings” was drawing to a close. In this project, the facility management method applied in the project stage of a building was evaluated, with further emphasis on its maintenance and reconstruction.

So what lesson can be drawn for us and for those who work in the field of facility management, either as facility managers or teachers? The educational situation in Slovakia within the field of facility management is certainly in need of a comprehensive learning programme. One well-known “guru” engaged in the field of facility management in the Czech Republic expressed the following wise words: “Since there are many educated people, but a huge lack of educated facility managers, a lot of work will have to be done in the field of education”. I, too, am of this opinion.

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ADMINISTRATION OF BUILDINGS AND PRINCIPLES OF INFORMATION AND ORIENTATION MARKING

Orientation, information, safety and other types of signs, as a form of visual communication are evolving along with humanity since time immemorial and other forms of communication. From the primitive need to leave information about food, danger, direction of movement, etc. This area of communication has developed to the present time into a wide variety of forms and modes of transmission of graphical information. Today this area is called SIGN represents a very large field of study involving in itself both elements of informatics, as well as those of design. Information boards and other marking elements became an instrument of expression of the level of positive relationship to users and visitors of buildings, production plants and institutions.

Orientation, information and safety signs must comply with the requirements of all potential users, including the requirements of people with a health handicap. Especially for people with limited mobility and orientation the information system derives from the following forms:

- forms of visual communication – people with physical, hearing and mental handicap;
- forms of acoustic communication – people with visual disabilities;
- forms using tactile elements – people with visual handicap.

In terms of indicative marking the essence is to communicate using signs and symbols. The characters represent different sounds of verbal communication (letters) and in summary form texts. Another form of the characters are numbers used to express count or quantity of a certain variable. The information communicated using characters shows obvious influence of the language used. Some