



**RE-ACCREDITATION OF THE COLLEGE FOR INFORMATION  
TECHNOLOGIES (VSITE), ZAGREB**

**Date of the site visit:  
21 May 2012**

**July, 2012**

**COMPOSITION OF THE EXPERT PANEL**

- Prof. Dr. Wladimir Bodrow, University of Applied Sciences, Berlin, Germany (Chair)
- Dr. sc. Dražen Vrhovski, VERN Polytechnic, Zagreb, Croatia
- Mr. sc. Goran Malčić, Polytechnic of Zagreb, Croatia
- Mr. sc. Vladimir Lebinac, Polytechnic Velika Gorica, Croatia
- Daniel Popić, student, Polytechnic of Zagreb, Croatia

Expert panel was supported by:

- Davor Jurić, prof., coordinator, Agency for Science and Higher Education
- Lida Lamza, prof., interpreter at site visit, Agency for Science and Higher Education

# Contents

|   |                  |
|---|------------------|
| <b><u>CONTENTS .....</u></b>  | <b><u>3</u></b>  |
| <b><u>INTRODUCTION.....</u></b>   | <b><u>4</u></b>  |
| SHORT DESCRIPTION OF THE EVALUATED INSTITUTION.....                                       | 4                |
| THE WORK OF THE EXPERT PANEL.....   | 4                |
| <b><u>DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION.....</u></b> | <b><u>6</u></b>  |
| 1. INSTITUTIONAL MANAGEMENT AND QUALITY ASSURANCE .....                                   | 6                |
| 2. STUDY PROGRAMMES .....   | 7                |
| 3. STUDENTS .....   | 9                |
| 4. TEACHERS .....   | 10               |
| 5. RESEARCH AND PROFESSIONAL ACTIVITY .....   | 11               |
| 6. INTERNATIONAL COOPERATION AND MOBILITY .....   | 12               |
| 7. RESOURCES: ADMINISTRATION, SPACE, EQUIPMENT AND FINANCES .....                         | 13               |
| <b><u>FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT PANEL .....</u></b>                  | <b><u>15</u></b> |
| ADVANTAGES (STRONG POINTS).....   | 15               |
| DISADVANTAGES (WEAK POINTS) .....   | 15               |
| <b><u>RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY .....</u></b>                            | <b><u>16</u></b> |

# INTRODUCTION

## ***Short description of the evaluated institution***

The College for Information Technologies was founded in 2006. VSITE's founder is Intus Informatika, company registered for Informatics, Trade and Services, Zagreb, Prilaz I.Visina 1, which has the rights and obligations of the founder in accordance with the law. Full name of VSITE in Croatian is: *Visoka škola za informacijske tehnologije*. Full name of VSITE in English is: *College for Information Technologies*.

VSITE is a legal entity registered in the Court Register of Institutions and in the Register of Higher Education Institutions number 0297 with the Ministry of Science, Education and Sports of the Republic of Croatia, since October 12th, 2006.

College for Information Technologies has been running only one program, professional study programme of Information Technology. The permanent license was obtained in April 8th, 2011.

There is an implemented information system for monitoring the School (School Administration - SCAD). It was crucial for obtaining the ISO-9001- 2008 certificate in June 9th 2011. This information system contains module for conducting surveys among students about the quality of teaching on VSITE.

The strategy for school development has been defined and documented by the strategy materials of the VSITE development for the period 2011 – 2016.

## ***The work of the Expert Panel***

Some weeks before the three-day meeting in Zagreb every member of the Panel received the materials about the procedure of re-accreditation and the Self-Evaluation Report of the College for Information Technologies. Based on this information provided by the Agency for Science and Higher Education Croatia and also information on the Internet all experts listed above had the opportunity to prepare the activity.

In the first meeting on 20<sup>th</sup> of May the Panel members were instructed by the Agency staff about the special aspects of the re-accreditation procedure. Additionally the Panel had the first discussion about the focus of re-accreditation regarding different criteria for assessment of quality of polytechnics and colleges. The members of the Panel elected the chair and decided about their individual tasks during the re-accreditation.

Based on the discussion in the first meeting every expert defined several Criteria to be answered during the visit to College on Monday, 21<sup>st</sup> of May, 2012. Following these Criteria the members of the Panel discussed the situation in the College with its administration, teachers, assistants, and students. During the visit to College for Information Technologies the members of the expert Panel made a short tour through the classes, lecture halls, library etc. and held meetings with the following groups:

- Representatives of Management, Dean, Vice-Dean, heads of departments
- Working group which compiled the self-evaluation document
- Students
- Teaching Assistants

- Teachers

The Panel also examined the classrooms and other facilities at the campus and visited few lectures, in one of which they held a brief question and answer session with the students.

The information gathered in these very intensive but direct and friendly discussions was analysed afterwards in the expert meeting. The results of these discussions and analyses built the foundation for the statements listed below and advice ordered according to the predefined chapters.

# DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

## *1. Institutional management and quality assurance*

The College for Information Technologies has been established in the Zagreb area for several years and co-operates with some firms in and the city and the region. The mission, vision and strategy of the college are defined briefly in the self-evaluation materials, but they are not declared in the corresponding documentation nor communicated to students and staff. **It is recommended therefore to communicate the mission, vision and strategy of the College to all students.**

- 1.1. The Panel members had a discussion with the stakeholders, who represent a very well organized working team, and demonstrate an understanding of the current situation in the College, their position on the market, vision, goals and systematic strategic planning for the next couple of years. The weak point in respect to this Criterion is the fact that these well communicated statements are briefly described in the Self-Evaluation but are not formulated in detail in corresponding documents. **It is recommended therefore to formulate in detail, in documents, the strategy and connected issues mentioned above. The mission and vision of the College must clearly reflect the position of the College with respect to its market position, target student population, employability, possibilities for further studying etc.**
- 1.2. The administrative structure of the College is defined and represented in the Self-Evaluation materials. The tasks and the responsibilities in the College are known, for the students as well as teachers and non-academic staff, but are not documented in the legal materials. **It is recommended therefore to formalize the processes and corresponding responsibilities and document them in the legal documents and publications. With the planned growth in the number of students at the College this documentation will become decisive in all processes and decisions within the College.**
- 1.3. The study programme in Information Technology is aligned with the mission communicated by stakeholders. **Here it is also recommended to prepare more documentation.**
- 1.4. The study programme is aligned with the baseline of the Croatian Qualification Framework.
- 1.5. The members of the existing Quality Management Commission are willing to improve the quality of the study process as well as of the administrative decisions. The weak point here is again the documentation, which is not defined. **It is recommended therefore to prepare the documentation e. g. some kind of a Handbook for Regulations on Quality Assurance and/or the Book of Regulations on Quality Assurance. Such documentation is significant because the members of the commission do not have enough experience or skills in this area.**
- 1.6. The College has a computer application (information system SCAD) for monitoring all teaching activities and exams. Based on this application, departments and administration

can control and improve the transfer of knowledge and development of professional skills of each student in the College during the semester and exams. In addition to this, the implemented system enables monitoring of the teachers' work, that is, teaching preparation and realization.

- 1.7. The few words about ethical behaviour in the Self-Evaluation document contain no established and declared formal rules. **It is recommended therefore to define the formal rules of ethical behaviour. The curriculum contains the obligatory subject Business Ethics but this is only a piece in a puzzle of the structure to be developed and implemented in the college.**
- 1.8. Staff and students are introduced in different ways to some aspects of ethical behaviour but this is not systematically implemented and has to be significantly improved. **It is recommended therefore to communicate the rules of ethical behaviour to staff and students and instruct them about the application of these rules in their practice.**

## ***2. Study programmes***

Because of rather weak co-operation with business and few student activities in firms there are problems with fitting the curriculum to the market and harmonizing it with EU and/or international standards. The first step is done with the listing of comparable foreign universities; the co-operation agreement and detailed analysis of particular subjects are proposed as the next steps to be realized. **It is recommended therefore to align the existing and proposed study programs e.g. to IEEE Computer Society/ACM, Bologna Declaration, Lisbon Recognition Convention, and other EU-projects in this area. According to these documents the established bachelor and master programmes are defined in Computer Sciences, Computer Engineering, Software Engineering and Information Systems.**

Internationalization of the study programmes presupposes teaching in English, which is not implemented at the moment. Therefore the enrolment of foreign students and participation of teachers from abroad is in the plan for the next couple of years. Ratio of obligatory and elective subjects is 52:48.

- 2.1. Enrolment quotas proposed and realized by VSITE are in accordance with the needs of society, considering the lack of highly skilled IT professionals on the market in a broader sense. However, this is not the result of labour market research, but the general knowledge. **It is recommended therefore that VSITE in the future should permanently explore which professionals with IT profiles are missing on the market or are there too many of them.**
- 2.2. Enrolment quotas are adequate in relation to available space and infrastructure resources, but not entirely in relation to the number of employed qualified teaching staff. **It is recommended therefore to increase the number of full time teachers.**
- 2.3. Learning outcomes by courses are not published and communicated to students. However, the college presented this to the expert panel by intranet - a business information system for management of educational processes and students (SCAD - School Administration).

Accordingly, students do not know upon enrolment what their expectation of the outcome of the courses is or what professional knowledge and skills they will have after graduation. **It is recommended therefore to announce the learning outcomes for all the courses.** In the self-analysis the course plan per semester is not shown and it is difficult to follow the order and course necessary knowledge and conditions for enrolment. For example, as a condition for enrolment to the course 'Architecture and organization of digital computers' it is necessary to pass 'Fundamentals of electronics', which is offered in the same semester (source: [website VSITE](#)). **It is recommended therefore to analyse the possibilities to realize the sequence-related courses defined in the curriculum.**

- 2.4. Considering that learning outcomes were likely defined immediately before the re-accreditation, it is not expected that teachers conducted exams in accordance with learning outcomes which are defined now. It is expected that in the future they will apply. **It is recommended therefore to conduct exams in accordance with defined learning outcomes as soon as possible.** Some content items such as subject lectures are typical topics for the exercises - for example, 'Design a web page' has to be presented in the lectures. But working with the LAMP stack, installation, configuration, and use, as well as the topics like: Installation and configuration of Joomla, email, WordPress and Magento, which are currently to be presented also in the auditorium, are better taught in the lab based on exercises. **It is recommended therefore to move the practical work using software tools from teaching in auditorium to practice in the laboratory.**
- 2.5. Method of allocation of ECTS credits is consistent with the projected workload of teaching (lectures - exercise - seminar / project task). Deviations from this rule are negligible. There are two basic subjects taught in the schedule of 3 hours of lectures and 4 hours of exercise per week, which carries 8 ECTS points, which is substantial burden for just one course. **It is recommended therefore to check the possibility to reduce workload on some courses.**
- 2.6. In Self-Analysis it was not formulated which external curriculum was used as the basis for making the current one, but noted that the recommendations of the international IEEE organization were used and ASIIN (written in self-analysis ASSIN) without detailed explanations (recommendations by ACM - Association for Computing Machinery was not used). **It is recommended therefore to communicate which recommendations were used and how they were applied.**
- 2.7. Teachers generally choose methods appropriate for the material being taught, which encourages students to independent learning relatively well. Perhaps the College lacks a single system for e-learning, which is somewhat compensated by the student-teacher forum. **It is recommended therefore to implement e-learning system for better communication with students.**
- 2.8. Distribution of notebook computers to students with all the necessary programs and e-literature from the university, and publication of the forums with more links to foreign literature, allow students a good amount of content resources for independent learning.
- 2.9. The College sends students on professional practice in IT companies. The duration of this industrial placement is only two weeks (10 days). It is too little, in order for students to apply lessons learned in real work environment. **It is recommended therefore to investigate the possibility of increasing the duration of professional practice.**

2.10. The College is in the process of proposing a new specialist graduate study programme, as well as upgrading the undergraduate one. The new programme is simply modelled on the existing one, without comparison, evaluation and utilization of international recommendations and standards. Refreshing and innovation of the existing programme was not formally carried out from the beginning. Content improvement and innovation is addressed through invited lectures and work-shops, which is not enough and has no strategic effect. **It is recommended therefore to increase the number and the quality of activities with respect to updating of the curriculum.**

### **3. Students**

Currently there are more than 450 students enrolled at the College for Information Technologies. The enrolment is up to 75 regular and 75 part-time students each year. The drop-out around 30% shows that the future students need some kind of test - possibly in the form of WEB-based self-test or consultation - to ensure them in their decision to study at the College.

- 3.1. Regarding information packages, the most important information should be pointed out. **It is recommended therefore to develop the information package regarding the study at the College and to deliver it to students.**
- 3.2. There is a lack of information for students regarding further education and employment. **It is recommended therefore to include in the information package (see Criteria 3.1) the materials about the possible employment after graduation.**
- 3.3. Competencies of applicants are not properly evaluated upon admission regarding demands and expectations in the future career of graduates. About 30% of students fail to pass the semester (one of the reasons might be that their knowledge upon admission was not properly tested). **It is recommended therefore to organize a professional test to check the capabilities and potential of future students.**
- 3.4. The College should try to attract more and better quality students. **It is recommended therefore to organize meetings and presentations in corresponding institutions or at relevant events.**
- 3.5. Students should be more involved in projects, research and professional activities. **It is recommended therefore to increase the contacts with companies among teachers and involve students in the R&D projects with firms and institutions.**
- 3.6. The College cares for the level of student standard.
- 3.7. The administration of the College supports the work of the Student Council.
- 3.8. Based on the information System SCAD the institution controls the teaching and learning process continuously and provides feedback to students and teachers

- 3.9. The institution could improve their statistics on the employability of its graduates. **It is recommended therefore to implement the WEB site with information about the graduates of the College.**
- 3.10. The institution could improve their contact with alumni. **It is recommended to organize students' meetings with alumni to improve the information transfer about the employment opportunities etc.**
- 3.11. The students at the College actively participate in the decision-making processes in all relevant areas.
- 3.12. The students do not have enough information about the study programmes, learning outcomes and employment opportunities. **It is recommended therefore to document all the information mentioned in the information package (see Criteria 3.1).**

#### ***4. Teachers***

All together there will be up to 70 teachers delivering the lectures for students at the College. According to the self-evaluation 6 teachers and five assistants are currently full employed. They are paid for the costs of publication of professional and scientific papers (up to now five teachers) and postgraduate scholarships (up to now, two teachers, postgraduate), all from the School budget. Some teachers don't use this support and publish few or no papers. The same is valid also for R&D projects with industry both in regional and international scale.

Training of teachers and associates is carried out through the funding of graduate and postgraduate courses, participation in professional projects and participation in conferences, workshops and courses. Currently the college is funding two doctoral studies, and all assistants bachelors will free of charge study at the specialist graduate study of information technology.

- 4.1. The documentation of the Self-Analysis shows that certain teachers working as associate assistants have a formal education in which they gained less than 300 ECTS credits, and it is not specified by any legal document that they can deliver instruction. **It is recommended therefore to investigate the educational level of the teaching staff.**
- 4.2. There is no document defining this tertiary education institution's strategy of its employees' professional training related to the curriculum of the courses they deliver instruction in. **It is recommended therefore to define and document the strategy for professional training of staff.**
- 4.3. The Self-Analysis documentation shows that certain teachers, especially assistants have excessive workload. Certain teachers are also course holders in more than 2 courses, which is not acceptable. **It is recommended therefore to examine the workload of assistants.**
- 4.4. The recommendation for this tertiary education school is to have as many as possible fully employed people in the future, which will have a positive effect on the overall quality. **It is recommended therefore to increase the number of fully employed staff.**

- 4.5. There is no document which defines the rules on professional training of teachers as they are defined in the mission of the school. Instead, the professional trainings are carried out as agreed. **It is recommended therefore to define the rules for professional training of teachers.**
- 4.6. There is no document defining the procedure, i.e. the criteria for hiring new teachers and the possibilities of their advancement. There being no regulations, it is not possible to have the just implementation of the procedures and criteria. This way it is not possible for the applicants to make complaints about the procedures. **It is recommended therefore to define and document the procedure and rules for hiring the new teachers.**
- 4.7. There is no document defining what both the excessive workload and the excessive shortage of workload of certain teachers are based on; it is also unclear how the mentorship and consultation hours are validated. **It is recommended therefore to define the rules for lack of or too much workload, and also for validation of mentorship.**
- 4.8. The College takes care about the professional activities carried out by its teachers outside the school, but there is no document defining rules on it. **It is recommended therefore to define the rules for professional activities of teachers outside of the College.**

## ***5. Research and professional activity***

- 5.1. There are no formally adopted policies governing existing or planned professional research activities. The involvement of teachers and assistants in international organizations or the sporadic participation in conferences is initiated exclusively by the teaching staff. It cannot be considered as an institutional policy. **It is recommended therefore that the College develops policies that encourage research to achieve strategic goals.**
- 5.2. As there are no policies for research activities no implementation was possible so far. **It is recommended therefore that mechanisms have to be developed and implemented - based on future policies - which ensure that systematic research activities will be carried out in future.**
- 5.3. There is no research agenda. Cooperation with other professional organizations and industry is only sporadic and not systematically carried out. The plans for setting up a new technology park to attract businesses provide grounds for future employment of the graduated students as well as internships is poorly explained and evaluated. The explanation provided that is hard to motivate students to work jointly on published papers is rather vague. **It is recommended therefore to plan and implement a detailed research agenda in cooperation with the local companies. The College explicitly stated Zagreb area as the target area for their prospective students hence more needs to be done to position the College as a local business stakeholder.**
- 5.4. Professional activities (e.g. conferences) are supported but not initiated by the College. The mission and vision of the College are rather generic. **It is recommended therefore that professional activities are initiated by the responsible bodies of the College and that the results are monitored. Once the mission and vision are defined, key professional**

**objectives which are in line with the mission/vision need to be outlined in the formal documents together with the mechanism to meet these objectives.**

## ***6. International cooperation and mobility***

The cooperation with international universities and firms is considered as a weak point in this regard.

- 6.1. There is some inward mobility, mainly by students from the Polytechnic of Zagreb. There exist no organizational preconditions to encourage any other inward mobility of students from other Croatian or higher education institutions from abroad. The strategic goal of setting up a new study programme in English is not entirely clear given that the College itself states in the Self-Analysis document that the interest for English-based study programmes has been very poor. **It is recommended that arrangements are made for acknowledgment of ECTS gained by students at other IT-related polytechnics and colleges in Croatia. Encouraging and facilitating inward international mobility should be developed parallel to the outgoing mobility (see: Criteria 6.2).**
- 6.2. Students have no opportunity to complete some portion of their study abroad. The management has established only initial international cooperation. From an institutional perspective, there is no support for students in this respect (no information, no financial support, and no office for international student exchange). The College did not establish cooperation within the EU Erasmus Programme however it has clearly expressed the interest and the will to become more international by supporting students' and teachers' exchange. The students consider themselves capacitated for studying abroad however the College does not provide infrastructure for students to realize this. **It is recommended therefore that College takes several steps to implement the objectives of the Erasmus programme. In the short term, some courses could be delivered in English. Guest speakers and visiting professors from abroad could be invited; the media materials (website, leaflets, and brochures) should be available in English. Furthermore, administrative and financial support of students will be necessary, e.g. an office for international affairs could support the exchange of ingoing and outgoing students.**
- 6.3. There is no international cooperation so far between the College and other colleges or polytechnics. The Management states a signed agreement on collaboration with a Finish university; however, this is indeed in its early stage of implementation and has not been substantiated by the corresponding documentation. **It is recommended therefore to start (parallel to the internal changes) a cooperation with a few new universities, making the initial steps. The areas of cooperation could be intensified step by step. Benchmarking could help to identify the most appropriate partner universities. The Management must stimulate both its teaching staff as well as the students to exercise the opportunities stemming from the agreements signed.**
- 6.4. The College is not a member of any professional domestic and/or international organization. Only one member of the Management states being a member of the IEEE. **It is**

**recommended therefore to initiate and intensify relations and memberships to other institutions in Croatia and abroad. Via such memberships the College must provide a framework for its staff and students to actively participate in meeting key objectives of the given organization by, for instance, attending conferences, seminars, general meetings and other such events organized by the given organizations.**

- 6.5. As there is no internationally oriented infrastructure, no regulations concerning the acceptance of ECTS, acquired at other institutions, no adequate curriculum and no lectures in English, the minimum preconditions for accepting students from abroad are missing. **It is recommended therefore to define and establish preconditions for becoming international and attracting students from abroad (see: Criteria 6.1).**
- 6.6. The College has not developed any cooperation in the EU Lifelong Learning Programme nor has it conducted seminars, workshops and other such events targeting general working population in Croatia and abroad. **It is recommended therefore to develop cooperation within this programme. Regarding lifelong learning in general, such programmes could be developed to the benefits of former students, the society and other stakeholders. One basis could be an effective Alumni club. The experience and assistance of the existing lifelong learning programs and programs for practical learning for adults should be taken into account.**
- 6.7. No inter-institutional cooperation through European projects exists at the College. There are no other European projects, bilateral agreements or joint programs. **It is recommended therefore (like with international cooperation and mobility in general) that the College provides the corresponding institutional framework. Primarily, the vision and the mission must reflect the College market position, target student/adult population and key strategic objectives. Activities in establishing international cooperation must then be aligned with these strategic objectives.**

## ***7. Resources: administration, space, equipment and finances***

- 7.1. College supports all enrolled students by hardware and software (notebook computer and software tools). There are few individual and group study spaces, also the library will be renovated and extended. **It is recommended therefore to increase the capacities for individual and group student activities. The library has to have more space and be updated regarding the materials for teaching and learning.**
- 7.2. College for Information Technologies employs three people in administrative, technical and support services with full-time jobs. One person has been employed in the data centre, one for administrative and student-related tasks and one person for tasks connected with shipping and storage. For accounting services, maintenance and operations of physical and technical security outer companies are contracted. In relation to the total number of employees, students and space for teaching, the number of the employed administrative, technical and support staff is sufficient. **It is recommended to develop the rules for regulation of training for non-teaching staff.**

- 7.3. Professional study programme of Information Technologies is held at the headquarters of the College for Information Technologies. The College facilities are available in the long-term lease in the I. Technical School Tesla Zagreb, Klaićeva7, (Building K). The research capacities are not developed and so students have few chances to participate in research and development projects. **It is recommended therefore to develop the capacities for research and development projects based on platforms installed at the College.**
- 7.4. Classrooms are equipped with projectors, overhead projectors and whiteboards, as well as a computer network, owned by VSITE. Laboratories are equipped with 4x20, 2x15 and 1x10 computers, whiteboards, and computer network. Offices are equipped with computer network. Sanitary facilities and communications area in Klaićeva 7 are used in conjunction with the I. Technical School Tesla Zagreb. Space and equipment meet the current needs of the teaching process. The total available space used daily by VSITE is 1040 m<sup>2</sup> (including classrooms, registry office, deanery, library and teachers' offices). Optimal quota for the existing professional study programme of Information Technologies is the two study groups of 75 students (resulting in a steady number of approximately 450 students). The current space available corresponds to the needs of studies offered at the College, with the actual standard of 1.6 m<sup>2</sup> per student. In accordance with the development strategy, VSITE leadership is in contact with the owner of the facility to reserve the area of about 1500 square meters for further 200 students. **It is recommended therefore to intensify the activities regarding the acquisition of additional facilities for teaching and technical support.**
- 7.5. VSITE gathers, examines, and uses the information about all students in every course to support everybody in the study process. This information is available to responsible administrators, who contact single teachers and evaluate with them according to the results achieved.
- 7.6. There exist a library in the building, but it is not specialized for teaching of subjects in VSITE programs. The capacities are not sufficient to ensure adequate support for students. **It is recommended therefore to increase the spatial capacity of the library and especially to update the materials - printed and digital - with respect to subjects taught by VSITE.**
- 7.7. The strategic planning activities are concentrated in the hands of leadership; non-teaching staff, teaching assistants and students are less involved in corresponding decisions. **It is recommended therefore to involve all groups into the strategic planning.**
- 7.8. Due to the cooperation with a number of economic entities (Storm Computers, Pastor TVA, TOZ, Elektroda Zagreb, TEP, IBM, Kraš, etc.) VSITE is able to invite the lectures from the industry but this has no influence on research and development activities in the college, which are rather in the early stage of implementation. So the research activities can be done only in those partner companies. Financial situation of VSITE allows only a little support for research and development capacities. **It is recommended therefore to improve the VSITE own IT-capacities for the realization of projects with companies. Installation of such capacities by VSITE can be done in co-operation with partner firms.**

7.9. The main part of available own funds are used to increase the number of classrooms and IT-capacities. These projects are focused on the improvement of quality of teaching and present a high priority to the VSITE administration.

## **FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT PANEL**

### ***ADVANTAGES (STRONG POINTS)***

#### **Management and organisational structure**

The management of the College for Information Technologies is well prepared and highly motivated.

#### **Controlling of the learning and teaching**

The controlling system implemented at the College for Information Technologies SCAD allows monitoring of each teaching and learning activity with respect to every student and/or teacher. This system will be intensively used to support the study process.

#### **Support of students' activities**

The institution provides good support to the students in their learning activities. This includes providing each with a laptop and software packages.

#### **Strategic plans and activities**

The activities of the institution's administration are derived from the strategic plans communicated to the members of the panel during the meeting with administration. The main point in these activities concerns the acquisition of additional facilities for teaching including auditorium space capacities, library, and project labs.

### ***DISADVANTAGES (WEAK POINTS)***

#### **Documentation**

The mission, vision, and strategy as well as the other rules have to be appropriately documented and communicated to staff and students.

#### **Co-operation with companies**

The co-operation activities with industry have to be improved in respect to R&D projects with students' participation, hiring potential lecturers, industrial placement etc.

#### **Marketing and social activities**

The presentations of the College in relevant administrative regional events organized by the organizations located in Zagreb, and organisation of the College own PR activities will strengthen its position on the market.

### **College Resources**

The IT resources and both the physical space and the collections in the library are to be improved and fitted to the courses provided.

### **Practice Projects with Students' Participation**

Only few students of the College are involved in the realization of projects with companies during their regular study. The only contact with practice takes place in the firms where they work in few projects within their industrial placement.

## **RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY**

### **1) Institutional Management and Quality Assurance**

- It is recommended to communicate the mission, vision and strategy of the College to all students. Generally it is recommended to formulate also the rules, responsibilities and other points mentioned in Criteria 1.1 till 1.3 in the documents and communicate this information to staff and students.
- It is recommended to prepare the documentation e. g. some kind of a Handbook for Regulations on Quality Assurance and/or the Book of Regulations on Quality Assurance. Such documentation is significant because the members of the QA Commission do not have enough experience and skills in this area. (Criterion 1.5)
- It is recommended to define the formal rules of ethical behaviour. The curriculum contains the obligatory subject Business Ethics but this is only a piece in a puzzle of the structure to be developed and implemented at the College. (Criterion 1.7)
- It is recommended therefore to communicate the rules of ethical behaviour to staff and students and instruct them about the application of these rules in their practice. (Criterion 1.8)

### **2) Study Programmes**

- It is recommended to align the existing and proposed study programs e.g. to IEEE Computer Society/ACM, Bologna Declaration, Lisbon Recognition Convention, and other EU-projects in this area. It is recommended also that VSITE in the future should permanently explore which professionals with IT profiles are missing on the market or are there too many of them. (Criterion 2.1)
- It is recommended to increase the number of full time teachers. (Criterion 2.2)
- It is recommended to announce the learning outcomes for all the courses. It is also recommended to analyse the possibilities to realize the sequence-related courses defined in the curriculum by students. (Criterion 2.3)

- It is recommended therefore to conduct exams in accordance with defined learning outcomes as soon as possible. It is recommended to move the practical work using software tools from teaching in auditorium to practice in the laboratory. (Criterion 2.4)
- It is recommended to check the possibility to reduce workload on some courses. (Criterion 2.5)
- It is recommended to communicate which recommendations were used and how they were applied. (Criterion 2.6)
- It is recommended to implement an e-learning system for better communication with students. (Criterion 2.7)
- It is recommended to investigate the possibility of increasing the duration of professional practice. (Criterion 2.9)
- It is recommended to increase the number and the quality of activities with respect to updating of the curriculum. (Criterion 2.10)

### **3) Students**

- It is recommended to develop the information package regarding the study at the College and to deliver it to students. (Criterion 3.1)
- It is recommended to include in the information package (see Criterion 3.1) the materials about the possible employment after the graduation. (Criterion 3.2)
- It is recommended to organize a professional test to check the capabilities and potential of future students. (Criterion 3.3)
- It is recommended to organize meetings and presentations in corresponding institutions or events. (Criterion 3.4)
- It is recommended to increase the contacts with companies among teachers and involve students in the R&D projects with firms and institutions. (Criterion 3.5)
- It is recommended to implement a WEB site with information about the graduates of the College. (Criterion 3.9)
- It is recommended to organize student meetings with alumni to improve the information transfer about the employment opportunities etc. (Criterion 3.10)
- It is recommended to document all listed information in the information package. (Criterion 3.12 and see Criterion 3.1)

### **4) Teachers**

- It is recommended to investigate the educational level of the teaching staff. (Criterion 4.1)
- It is recommended to define and document the strategy for professional training of staff. (Criterion 4.2)
- It is recommended to examine the workload of assistants. (Criterion 4.3)
- It is recommended to increase the number of fully employed staff. (Criterion 4.4)
- It is recommended to define the rules for professional training of teachers. (Criterion 4.5)
- It is recommended to define and document the procedure and rules for hiring new teachers. (Criterion 4.6)
- It is recommended to define the rules for excessive and insufficient workload, and also for validation of mentorship. (Criterion 4.7)

- It is recommended to define the rules for professional activities of teachers outside of the College. (Criterion 4.8)

## **5) Scientific and Professional Activity**

- It is recommended that the College develops policies that encourage research to achieve strategic goals. (Criterion 5.1)
- It is recommended that mechanisms be developed and implemented - based on future policies - which ensure that systematic research activities are carried out in the future. (Criterion 5.2)
- It is recommended to plan and implement a detailed research agenda in cooperation with the local companies. The College explicitly stated Zagreb area as the target area for their prospective students, hence more needs to be done to position the College as a local business stakeholder. (Criterion 5.3)
- It is recommended therefore that professional activities are initiated by the responsible bodies of the College and the results are monitored. The mission and vision of the College must clearly reflect the position of the College with respect to its market position, target student population, employability, possibilities for further studying etc. Once the mission and vision are defined, key professional objectives which are in line with the mission/vision need to be outlined in the formal documents as well as the mechanism to meet these objectives. (Criterion 5.4)

## **6) International Cooperation and Mobility**

- It is recommended that arrangements are made for acknowledgment of ECTS gained by students at other IT-related polytechnics and colleges in Croatia. Encouraging and facilitating inward international mobility should be developed in parallel to the outgoing mobility (Criterion 6.1 and see: Criterion 6.2).
- It is recommended that the College takes several steps to implement the objectives of the Erasmus program. In the short term some courses could be delivered in English. Guest speakers and visiting professors from abroad could be invited; the media materials (website, leaflets, and brochures) should be available in English. Furthermore administrative and financial support to students will be necessary, e.g. an office for international affairs could support the exchange of ingoing and outgoing students. (Criterion 6.2)
- It is recommended to start (parallel to the internal changes) cooperation with a few new universities. The areas of cooperation could be intensified step by step. Benchmarking could help to identify the most appropriate partner universities. The Management must stimulate both its teaching staff as well as the students to exercise the opportunities stemming from the agreements signed. (Criterion 6.3)
- It is recommended to initiate and intensify relations and memberships to other institutions in Croatia and abroad. Via such memberships the College must provide a framework for its staff and students to actively participate in meeting key objectives of the given organization by, for instance, attending conferences, seminars, general meetings and other such events organized by the given organization. (Criterion 6.4)
- It is recommended to define and establish preconditions for becoming international and attracting students from abroad (Criterion 6.5 and see: Criterion 6.1).
- It is recommended to develop a lifelong learning programme to the benefits of former students, the society and other stakeholders. One basis could be an effective Alumni club.

The experience and assistance of existing lifelong learning programs and programs for practical learning for adults should be taken into account. (Criterion 6.6)

- It is recommended (like with international cooperation and mobility in general) that the College provides the corresponding institutional framework. Primarily, the vision and the mission must reflect the College market position, target student/adult population and key strategic objectives. Activities in establishing international cooperation must then be aligned with these strategic objectives. (Criterion 6.7)

## **7) Resources, Administration, Space, Equipment and Finance**

- It is recommended to increase the capacities for individual and group student activities. The library has to have more space and be updated regarding the materials for teaching and learning. (Criterion 7.1)
- It is recommended to develop the rules for regulation of training for non-teaching staff. (Criterion 7.2)
- It is recommended to develop the capacities for research and development projects based on platforms installed at the College. (Criterion 7.3)
- It is recommended therefore to intensify the activities regarding the acquisition of additional facilities for teaching and technical support. (Criterion 7.4)
- It is recommended to increase the space capacity of the library and especially to update the materials – printed and digital – with respect to subjects taught by VSITE. (Criterion 7.6)
- It is recommended to involve all groups (non-teaching staff, teaching assistants, students) into the strategic planning. (Criterion 7.7)
- It is recommended to improve the VSITE own IT-capacities for the realization of projects with companies. Installation of such capacities by VSITE can be done in co-operation with partner firms. (Criterion 7.8)