



agency for science and higher education

**REPORT  
OF THE EXPERT PANEL  
ON THE  
RE-ACCREDITATION OF  
COLLEGE FOR INFORMATION TECHNOLOGIES, ZAGREB**

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## INTRODUCTION

The Agency for Science and Higher Education (the Agency) is an independent legal entity with public authority, registered in the court register, and a full member of the European Quality Assurance Register for Higher Education (EQAR) and European Association for Quality Assurance in Higher Education (ENQA).

All public and private higher education institutions are subject to re-accreditation, which is conducted in five-year cycles by the Agency, in accordance with the Act on Quality Assurance in Science and Higher Education (Official Gazette 45/09) and subordinate regulations, and by following *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) and good international practice in quality assurance of higher education and science.

The Agency's Accreditation Council appointed an independent Expert Panel for the evaluation of the College for Information Technologies (VSITE).

Members of the Expert Panel:

- Prof. Henrique Madeira, Universidade de Coimbra, Portuguese Republic, Panel chair,
- Doc. dr. Biljana Mileva Boshkoska, fakulteta za informacijske študije, Novo Mesto, Republic of Slovenia,
- Dr. sc. Nikolina Borčić, senior lecturer, VERN Polytechnic, Zagreb, Republic of Croatia,
- Dr. sc. Hrvoje Jerković, college professor, College Algebra, Zagreb, Republic of Croatia,
- Duje Skender, student, Polytechnic of Zagreb, Republic of Croatia.

During the site visit, the Expert Panel held meetings with the following stakeholders:

- Management,
- Self-Analysis committee,
- Students,
- Heads of study programmes,
- Vice-deans,
- Heads of departments and full-time employed teachers,
- External lecturers,
- Alumni and external stakeholders.

The Expert Panel members had a tour of the work facilities, laboratories, library, IT classrooms, student administration office and classrooms, and attended sample lectures, where they held a brief Q&A session with students.

In accordance with the site visit protocol, the Expert Panel examined the available additional documents and study programme descriptions (learning outcomes).

The Expert Panel drafted this Report on the re-accreditation of VSITE on the basis of VSITE Self-Analysis, other relevant documents and site visit.

The Report contains the following elements:

- Short description of the evaluated higher education institution,
- Brief analysis of the institutional advantages and disadvantages,
- List of institutional good practices,
- Analysis of each assessment area, recommendations for improvement and quality grade for each assessment area,
- Detailed analysis of each standard, recommendations for improvement and quality grade for each standard,
- Appendices (quality assessment summary by each assessment area and standard, and site visit protocol),
- Summary.

In the analysis of the documentation, visit to VSITE and writing of the Report, the Expert Panel was supported by:

- Davor Jurić, coordinator, ASHE,
- Sanja Smiljanić, assistant coordinator, ASHE,
- Igor Opić, interpreter at the site visit.

On the basis of the re-accreditation procedure conducted, and with the prior opinion of the Accreditation Council, the Agency issues a following accreditation recommendation to the Minister for Higher Education and Science:

1. **issuance of a confirmation on compliance with the requirements** for performing the activities, or parts of the activities
2. **denial of license** for performing the activities, or parts of the activities
3. **issuance of a letter of expectation** with the deadline for resolving deficiencies of up to three years. A letter of expectation can include the suspension of student enrolment within a set period.

The accreditation recommendation also includes a quality grade of a higher education institution, and recommendations for quality improvement.

## **SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION**

**NAME OF HIGHER EDUCATION INSTITUTION:** College for Information Technologies

**ADDRESS:** Klaićeva 7, 10000 Zagreb

**DEAN:** Milorad Nikitović, PhD College Professor

### **ORGANISATIONAL STRUCTURE:**

#### **Bodies constitutional units:**

- Administrative council,
- Dean,
- Vice-dean and councillors,
- Expert committees,
- Expert council,
- Advisory committee,
- Commission for quality management,
- Students' Council,
- Alumni Club.

#### **Departments:**

- Department of mathematics and physics,
- Department of languages and courses in social sciences,
- Department of electrical engineering and digital systems,
- Department of programming,
- Department of computer systems and networks,
- Department of databases and information systems.

### **STUDY PROGRAMMES:**

- Professional Undergraduate Study of Information Technologies,
- Professional Graduate Study of Information Technologies.

**NUMBER OF STUDENTS:** 515

**NUMBER OF TEACHERS:** 10 full-time teachers, 2 full-time assistants, 32 external teachers and 34 external assistants (total of 78 teaching staff)

## **SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION**

The College for Information Technologies (VSITE) is a private college offering a professional undergraduate study and a professional graduate study of information technologies, according to licenses for work issued by the Ministry of Science and

Education (MZO), and develops expert and scientific activities in line with the Act on Science and Higher Education.

## **BRIEF ANALYSIS OF THE INSTITUTIONAL ADVANTAGES AND DISADVANTAGES**

### **ADVANTAGES OF THE INSTITUTION**

1. Stable body of experienced teachers with good connections to industry.
2. Effective academic information system (SCAD), developed in house (i.e., VSITE has full control on the SCAD evolution), used to manage nearly all the aspects of the study programmes.
3. Study programmes well-adjusted to the market and providing nearly full employability.
4. Tight management practices, highly embedded with the daily activity of VSITE.
5. Good involvement with stakeholders.

### **DISADVANTAGES OF THE INSTITUTION**

1. Reduced visibility of some key aspects such as vision and strategy, internal quality system and procedures. VSITE is also not very visible in the building (shared with other institutions).
2. Lack of systematization and implementation of quality processes in practice, including discrepancies between documentation and website (e.g., career centre, awards for teachers and students, among others).
3. Student and teachers' mobility, involvement in Erasmus and internationalization are incipient.
4. Professional and scientific activities, particularly in what concerns research and innovation, could be much improved. Although VSITE currently has two projects, they are not visible in the institution.
5. The dropout rate is persistently high.

## **LIST OF INSTITUTIONAL GOOD PRACTICES**

### **EXAMPLES OF GOOD PRACTICE**

1. SCAD and the way it is used by students, teachers and administrative personnel to manage the academic activities of VSITE.
2. Well established cooperation with industry through external teachers.
3. The laptops provided to students and teachers, the software installed in the computers and the procedures in place to manage the process.
4. Textbooks developed and provided to support some courses.

## **ANALYSIS OF EACH ASSESSMENT AREA, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH ASSESSMENT AREA**

### **I. Internal quality assurance and the social role of the higher education institution**

#### **Analysis**

VSITE has a well-established and functional internal quality assurance system that addresses nearly all activities of the College. The internal processes that systematically collect and analyse data for quality assurance are also routinely established, and mostly rely on the SCAD information system, which has been developed internally and has already achieved a good maturity degree, clearly representing a very positive factor for the quality assurance process at VSITE.

All the stakeholders are generally involved in and contribute to the internal quality assurance system. However, the quality assurance system is not particularly visible at VSITE, which is an obstacle to increase the commitment and involvement of stakeholders, especially the ones not directly involved in the management of the quality assurance activities, such as the external teachers. The strategic management view of VSITE is generally reflected in the quality assurance system, but again the lack of visibility of the strategic view/goals at VSITE is also considered by the Panel as a point to be improved to further involve all the stakeholders in the strategic goals of the College.

VISTE has improved the quality standards of the institution carefully following and implementing most of the recommendations from the previous evaluation in 2012. The quality assurance system itself and all related documentation have been improved and further improvements have been introduced following internal quality assurance recommendations. In particular, the learning outcomes are now clearly defined and courses are now generally aligned with the defined learning outcomes. The allocation of ECTS to the courses was improved and students' effort is monitored. Other important aspects such as the development of information packages regarding studying at VSITE have been carried out and disseminated to students, among other aspects recommended in the previous evaluation. However, there are still many aspects that need additional effort, namely the increase in VSITE internalisation, the improvement in the production of high-quality professional and scientific publications, the increase of the number and relevance of projects, just to name a few.

VSITE supports academic integrity and freedom and has well-established procedures for preventing all types of unethical behaviour. The College is also committed to the development of its social role. However, the direct contribution of VSITE regarding the



development of the economy (economic and technological mission of the higher education institution) still has large room for improvement.

### **Recommendations for improvement**

VSITE should continue improving its internal quality assurance system and quality assurance practices. The documentation of the quality system should be improved to increase consistency, and the visibility of the whole quality assurance system should be increased, both within and outside the College, targeting external stakeholders. The strategic view and goals of VSITE should also be more visible internally and in the institutional website, including selected key elements of the SWOT analysis that VSITE should consider making publicly visible.

VSITE should continue supporting the academic integrity and freedom in the College and should maintain the efforts to prevent all forms of unethical behaviour, as well as continue improving the awareness of ethical behaviour in digital communication and business performances.

The Panel clearly recommends VSITE to increase its involvement in projects, including funded projects, to attain the goal of reinforcing the social role of VSITE, while obtaining many other benefits related to the project activities, with a particularly positive impact on students' and teachers' activities.

### **Quality grade**

Satisfactory level of quality

## **II. Study programmes**

### **Analysis**

VSITE clearly defines the general goals of the programmes offered and provides sound justification for delivering such study programmes. Additionally, the two study programmes lead to degrees in regulated professions and have very high employability rates. This suggests that both study programmes are well aligned with the needs of the labour market and issues degrees to VSITE graduates that are recognized in regulated professions.

VSITE has clearly defined the learning outcomes of the study programmes, as well as the learning outcomes at course level. Furthermore, these learning outcomes are aligned with the CroQF and EQF level descriptors, although concerning the Professional study, VSITE should improve the alignment with the IEEE/ACM syllabuses

recommendations. Unfortunately, the information on the learning outcomes is not readily available on VSITE website and the Panel recommends VSITE to publish the learning outcomes in the College web page fully in Croatian and in English, together with all other relevant information about the study programmes and courses, so incoming students can be properly informed.

It is also clear that VSITE generally ensures the achievement of intended learning outcomes of the study programmes it delivers. The tools used to do that include periodical testing in the form of various exams and exercises in labs, seminars and projects. Furthermore, VSITE uses effectively the feedback from students and other stakeholders, such as employers and alumni, to introduce adjustments in the study programmes and in the teaching methods.

The high drop-out rate in some courses is clearly a concern at VSITE and the College has tried to mitigate this problem through the introduction of different adjustments. However, VSITE considers that the problem is partially caused by external reasons, such as the fact that many students find jobs and therefore are unable to finish the study because of a lack of time.

The ECTS allocation to courses is generally adequate but some courses are clearly perceived by the students as requiring a much higher effort. Furthermore, many students are not aware of the meaning of ECTS, which suggests that VSITE should increase its effort to explain the actual meaning of ECTS. Furthermore, the mechanisms used to monitor students' effort in the different activities need to be improved, as well as the procedures used to introduce corrections if the effort monitored deviates from the planned ECTS, in order to assure that the ECTS allocated to each course are effectively aligned with the real average effort spent by students in the course.

### **Recommendations for improvement**

VSITE should increase the visibility of the learning outcomes and publish such information on the College web page fully in Croatian and in English, together with all the relevant information about the study programmes and courses, so incoming students can be properly informed.

Although the study programmes seem well aligned with the general needs of the labour market, the quality of the study programmes could be improved if more specific IT occupations that are in demand on the market are specifically targeted, especially in the final years of the study programmes. VSITE should establish procedures and means to help students in the process of understanding the job market needs, in order to guide them in selecting their major according to their preferences and the current demand in the market. Furthermore, the number of elective courses used to choose a major does

not seem sufficient to convey a distinctive profile to students that could fit in properly in the labour market.

VSITE should increase the efforts to understand the causes of the high dropout rate and try to detect potential dropout risk cases as early as possible, in order to organize additional activities to try to avoid dropout. This effort should be concentrated in the most demanding courses since such courses seem to be one of the internal causes of drop-out.

VSITE should clearly improve the mechanisms to monitor the students' effort in different activities in all courses and define corrective procedures to react when the effort monitored clearly deviates from the expected average effort, as defined by the ECTS allocated to each course.

Although student practical training in companies seems generally satisfactory, VSITE should closely monitor the activities of the students and continue improving the selection of the companies to be sure that all the students are sent to companies with adequate IT profile. Furthermore, the student's practical work assessment should be verified not just by the signature of the employer but also by teaching professionals from VSITE to assure an effective assessment of the student's learning achievements.

### **Quality grade**

Satisfactory level of quality

## **III. Teaching process and student support**

### **Analysis**

The admission criteria at VSITE are clearly defined and are generally in line with the requirements of the study programmes. However, it seems evident that the high dropout rate is partly related to the current selection process of candidates, which allows the enrolment of students with insufficient background knowledge.

The procedures for monitoring students' progress are well defined and are routinely applied at student, course and study programme level. Additionally, VSITE generally implements correct measures to mitigate the problems identified and help students to complete their study programmes. The SCAD information system plays a crucial role in this respect by providing adequate information and functionalities to different groups of users, assuring a uniform application of the procedures needed to monitor students' progress.

VSITE is generally committed to providing guidance on studying and career opportunities to their students. However, although VSITE has established a Career Centre, it seems that it is not functional in practice, as the career guidance is mainly provided by the lecturers on an individual student basis.

Concerning internationalization experience of students, although VSITE invests apparent effort in informing the students about the exchange programmes available to them, the results achieved are at a minimal level. The attraction of foreign students is also minimal.

The assessment of students' learning achievements is well established and is carried out in a consistent way at VSITE. The same can be said about the issuing of students' diplomas and diploma supplements, which is adequate at VSITE. The College should continue improving these good practices.

The employability of VSITE graduates is currently very high but it is obvious that this situation partially results from the highly favourable IT job market conjuncture. However, the Panel considers that VSITE should take advantage of the good connections of the College with external stakeholders to promote and increase the activities of the Career Centre.

### **Recommendations for improvement**

Since the high dropout rate is a persistent problem, the Panel recommends VSITE to assess the previous knowledge of the applicants, not as an eliminative factor but as a tool to develop extra help for students that are less prepared, in the form of extra (and mandatory) workshops and reading materials, to be completed before the start of the first semester.

Although students' progress is satisfactorily monitored at VSITE, and the College implements correct measures to mitigate the problems identified and help students to complete their study programmes, the fact that the dropout rate remains very high shows that there is a clear margin for improvement. VSITE should increase the effort to monitor students' progress and, in particular, should try to identify potential problems and introduce mitigation measures as early as possible.

The Panel recommends the introduction of interactive and project-based teaching methods in more courses, particularly in the initial years of the study programmes. Additionally, teachers should put in more effort to encourage creative and critical thinking among students, especially at the graduate level of study.

VSITE should increase the activity of the Career Centre. Although the current situation in the informatics job market is quite favourable, the Career Centre should refocus its activity on supporting students to find better jobs, instead of just finding a job.

Considering the very low level of internationalization experience of the students, VSITE should increase the effort and frequency in the promotion of the exchange programmes opportunities among students, especially in most advanced years of the study programmes. Concerning the attraction of foreign students, the Panel recommends the improvement of the public website of VSITE to emphasize the information for foreign students that might be interested in studying at VSITE.

The Panel recommends VSITE to provide a more formalised support regarding future career planning and finding employment after graduation through activating the function of the Career Centre, which is currently not recognised by the students.

### **Quality grade**

Satisfactory level of quality

## **IV. Teaching and institutional capacities**

### **Analysis**

VSITE ensures adequate teaching capacities and the number and qualifications of the teachers are adequate for the study programmes and for the achievement of the intended learning outcomes. However, only two lecturers and the two assistants are from the field of computer science and, in general, the teaching load of permanently employed teachers is quite high, which reduces their availability to other professional and/or scientific activities.

The evaluation process of the external teachers at VSITE is generally appropriate. However, the process could be improved with the formalization of the explicit elements used in fact in such assessment.

Concerning recruitment, advancement and re-appointment, although the documentation provided was not fully clear, the information gathered during the site visit to VSITE provided the Panel with a more complete view of the promotion and reappointment processes. This particularly refers to the periodical evaluation of the teachers' activities, which includes the involvement in projects, publications and teaching activities. Nevertheless, there is clear room for improvement in what concerns the definition of more explicit procedures for the promotion and reappointment of teachers, making the process more visible and transparent for the teachers.

VSITE clearly pays attention to the professional development of teachers and has defined a Professional Development Plan. The opinion of the students on the quality of teaching is highly positive, and that includes aspects that are directly related to the professional development of teachers such as the topics addressed in the periodic workshops. However, the Professional Development Plan is generic and the process could be improved through individual development plans for each teacher, that would allow a much more detailed monitoring.

The classrooms, laboratory equipment, tools and software are generally satisfactory at VSITE. All the students receive a laptop with the software required for the different courses already installed and the logistics in place to maintain such a high number of laptops seems to work well.

Concerning the finance situation, although the level of detail provided is relatively coarse-grained, it seems VSITE has a balanced situation. The College is highly dependent on tuition fees, which is not surprising considering that VSITE is a private institution.

### **Recommendations for improvement**

VSITE should consider reducing the teaching load of the permanently employed teachers as an encouragement for the development of the professional and/or scientific activities of teachers, namely the participation and promotion of projects at VSITE, production of publications, development of more teaching materials and improvement of teaching competencies.

VSITE should improve the evaluation process of the external teachers through the formalization of the explicit elements used in fact in such assessment. This will have the additional advantage of providing external teachers with an easily accessible and complete view of the evaluation framework used by VSITE to ensure an appropriate quality of external teachers.

The College should continue improving the process of recruitment, promotion and reappointment of teachers. In particular, promotion opportunities should be planned ahead and announced in a transparent way to all the teachers to encourage improvement and establish excellence rewarding practices for teachers at VSITE.

The Professional Development Plan should be improved through the creation of individual professional development plans for teachers to increase focus and to allow detailed monitoring of teachers' development activities. Furthermore, mobility should have a more prominent role in the development plan, as well as the participation in projects.

The Panel considers that the creation of a students' room that could work as a meeting point for VSITE students, providing the students with a comfortable space to work and to discuss topics related to the different courses, could be highly beneficial.

The Panel strongly encourages VSITE to seek additional funding sources to gain some tolerance to possible fluctuations in the tuition fees. Particularly, national and international funded research projects (which have many other benefits in addition to the finance aspects) seem the best instrument to get significant additional resources that could allow larger investments in facilities and equipment.

### **Quality grade**

Satisfactory level of quality

## **V. Professional and/or scientific activity**

### **Analysis**

Teachers and associates fail to publish high-quality professional and/or scientific publications. The main publications are teaching books, which students find very useful, as well as conference papers at the international conferences organised in Croatia. VSITE teachers and associates should use the encouraging mechanism of the management, which consists of covering all costs for publications, in order to publish high-quality professional and/or scientific publications. The higher education institution keeps records of publications in the national database MOZVAG. Teachers and associates of the higher education institution actively promote professional and/or scientific achievements in international conferences organised in Croatia. There is no such evidence for international conferences outside the country.

VSITE monitors the needs of society and local community and keeps a list of all projects and donations performed to help the local community. However, it does not perform labour market research to planning its professional and/or scientific and research activities. Instead its activities rely on the marker labour research performed by the national statistics agency. The higher education institution does not have an efficient support system for research and transfer of knowledge and technologies. The transfer of knowledge is based on the final and graduate theses of several students performed at companies. VSITE should improve the knowledge transfer in future. Teachers and associates rarely participate in the activities of professional organisations. There is a list of three teachers and associates who are involved in such activities.

There is a list of awards given to teachers and associates obtained on a regional, national and international level for their professional and/or scientific achievements.

The higher education institution has been a holder of several national projects and currently they obtained one EU funded project managed by the Croatian government. Given the size of VSITE the Panel believes that the number of national projects is adequate, however the number of EU funded project may have to increase in the future. Teachers and associates take part in international conferences held in Croatia. The attendance of international conferences held abroad needs to be further developed. The VSITE teachers claim that they are motivated by VSITE by the fact that the college would pay all the expenses. Although some teachers and associates are members of professional organisations and editorial boards of journals, VSITE does not provide evidence that shows such engagements. However, the meetings with teachers revealed that some of them are engaged as editors in internationally recognised journals.

Although the main equipment that students need are their laptops, the recently obtained research equipment from an EU funded project will be used in the future for teaching at undergraduate and graduate level. Undergraduate and graduate students are rarely involved in VSITE's projects due to the limited number of obtained and currently run projects. VSITE has a procedure in place for the recognition and rewarding of professional and/or scientific achievements of its employees, however, the first recognitions and awards are expected next year.

### **Recommendations for improvement**

VSITE teachers and associates need to improve the number of published professional and/or scientific journal publications and aim at publishing in internationally recognised journals indexed by relevant international bodies. Also, VSITE should increase the number of conference publications presented at relevant international conferences abroad.

VSITE should stimulate the growth of high-quality professional and/or scientific publications by awarding or providing other types of incentives. Teachers and associates of VSITE should actively promote professional and/or scientific achievements abroad at workshops, seminars and conferences.

VSITE should provide instruments for monitoring the needs of society, local community and labour market in order to provide tailor-made planning of its professional and/or scientific and research activities.

The Panel recommends that VSITE conducts activities to support the future development of start-up companies, possibly through the development of the career centre and improved cooperation with different business incubators in the country. In particular, VSITE should try to formalise the procedure of transferring knowledge to companies through the organisation of activities that will help both companies and



stakeholders to meet and work together. Patents should be clearly referenced so that it can be easily recognised where they were registered (at a national or EU level).

The VSITE-run projects should be visible on website and inside the College. For example, VSITE should hang posters and provide information about currently run projects on their website in order to improve the visibility. Additionally, VSITE should advertise their projects to students as well as their inclusion in the projects' implementation. Both teachers and students should get some clear incentives for project promotion and participation.

VSITE should update tables 5.4 and 5.5 from the MOZVAG database in order to improve the visibility of the scientific work performed by the employees.

### **Quality grade**

Minimum level of quality

## **DETAILED ANALYSIS OF EACH STANDARD, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH STANDARD**

### **I. Internal quality assurance and the social role of the higher education institution**

#### **1.1. The higher education institution has established a functional internal quality assurance system.**

##### **Analysis**

VSITE has generally implemented and complied with the national and international norms and quality standards, as described in the document “Self-Analysis for the period 2013-2018” and in other associated documents (hereafter referred to as “documentation”) provided to the Panel, and confirmed during the Panel visit to VSITE. The quality system of VSITE was initially certified for compliance with the ISO 9001-2008 in 2011, which lasts until today (ISO 9001:2015). VSITE started the implementation of the ESG (“Standards and guidelines for quality assurance in the European area of higher education”) in 2013, when the first draft of the quality assurance manual was adopted.

ESG and ISO systems were integrated in 2013, and VSITE acquired an ISO 9001:2008 certificate for both programs in 2014. VSITE has also certified its information security management system according to the norm ISO 27001:2013. The information systems integration and the transition of the quality management system to abide with the requirements of the norm ISO 9001:2015 has been completed with the implementation of ESG 2015. Recently, VSITE has started implementing the GDPR (General Data Protection Regulation) and has recertified the information security management system according to the ISO 27001:2017.

The quality management system (QMS), as described in the documentation and perceived in the Panel meetings held with the different management members and structures, addresses and evaluates all activities of VSITE. The dean collegium is, as stated by the dean and vice deans, responsible for the quality system, from the development of the documents to the implementation. In addition to the Management Board, the organisational structure of QMS in VSITE comprises the Quality Commission and the Quality Management representative (QM representative). QM representative is involved in all processes of implementation and/or evaluation of templates for quality measurement and helps also as coordinator of QM processes (as internal audit or development of the QM documents, etc.). According to the Standing orders of quality management, an internal audit of the efficiency of a quality management system is

carried out every two years with respect to ESG standards (by areas of quality assurance and valuation according to the ASHE criteria). The internal audits are conducted according to the Quality Manual (according to the report), and from the discussion with the main stakeholders (dean, teaching and non-teaching staff, students) the Panel confirmed that all quality activities are assessed. The possible weak point regarding the QM and in respect to this criterion is the fact that the system has two manuals. The representatives for the Quality explained the existence of two manuals with two other external audits (ISO and ESG) - Ordinance on quality management system of VSITE (PR-01) and the Ordinance on quality assurance of VSITE (PR-04). Both manuals include an explanation of the standards, explanation of the procedures and required activities, as well as the responsibilities of the HEI stakeholders. Our recommendation is to make a single integrated manual or, as an alternative, to clarify how the two manuals should be used together in a consistent way.

All the stakeholders are generally involved in and contribute to the internal quality assurance system. Given the relatively small size of the institution, the involvement of full-time teachers in quality management activities is particularly intense, as many aspects of the QMS rely on a small group of people (dean, vice-deans, councillors, quality management commission) that represents a large share of the full-time teachers. The involvement of external stakeholders is also clear and was attested by the Panel during the visit to VSITE. Students reply to satisfaction surveys and polls and contribute, as targets of the teaching activities, to a large share of the quality data collected. However, students, in general, are not explicitly aware of the QMS nor involved as active elements of the quality assurance. This is a consequence of a clear lack of internal visibility of the QMS, which is also true for the external stakeholders.

The quality assurance policy is formally (i.e., from a documentation perspective) integrated in the strategic management of VSITE, although, in practice, the small scale of VSITE and the management routines make it difficult to map the quality policy as part of the management strategy. SWOT analysis was not provided in the documentation in English and although the Panel managed to get some information on the SWOT analysis during the visit, this type of analysis does not seem particularly used by VSITE management, at least in a formal way.

VSITE has well established routines to systematically collect and analyse data for quality assurance. These procedures largely rely on the SCAD as platform, which clearly represent quite a positive factor in the VSITE quality assurance process.

### **Recommendations for improvement**

- Consider replacing the two manuals (PR-01: Ordinance on quality management system of VSITE and PR-04: Ordinance on quality assurance of VSITE) by a

unified manual or, as an alternative, to clarify how these two manuals should be used together.

- Make the internal quality assurance system more visible within VSITE, which is essential to increase the commitment and involvement of stakeholders, especially the ones not directly involved in the quality assurance activities (e.g., external teachers).
- Improve the alignment of the internal quality assurance system with the strategic goals and strategic management at VSITE, which should be done in parallel with actions to increase the visibility of strategic instruments such as the SWOT analysis.
- Improve the implementation of the quality system in general by taking into consideration the quality documentation in a stricter way, maybe increasing the role of SCAD in the quality assurance process even more.

### Quality grade

Satisfactory level of quality

## **1.2. The higher education institution implements recommendations for quality improvement from previous evaluations.**

### Analysis

VISTE has made a considerable effort to improve the quality standards of the institution, following the recommendations from the previous evaluation from May 2012. Many aspects have been improved, starting from the quality assurance system itself and all related documentation. Furthermore, the definition of the learning outcomes was also improved; the courses, classes and exams are now generally aligned with the defined learning outcomes; the allocation of ECTS to the courses was improved; information packages regarding studying at VSITE have been developed and delivered to students, among many other aspects.

However, there are still many aspects that need additional effort, namely the increase in VSITE internalisation (courses in English, increased participation on the mobility program, etc.), the improvement in the production of high quality professional and scientific publications, the increase of the number and relevance of projects, just to name a few. The present evaluation report, as a whole, describes the aspects that still need improvement at VSITE. Nevertheless, the Panel recognises that VSITE has already reasonably well-established practices to analyse the improvements introduced and plan further developments according to the monitored results.

## **Recommendations for improvement**

- VSITE should continue the effort of implementing the recommendations with particular emphasis on the weak points identified in the previous evaluation (and also consider in full the recommendations in the present evaluation report). The Panel also recommends the use of more quantitative descriptors in the reports of internal audits/evaluations, especially in order to describe the findings of the evaluations.

## **Quality grade**

Satisfactory level of quality

### **1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination.**

## **Analysis**

VSITE has developed the Ethical code of VSITE and has also adopted the “Ordinance on disciplinary responsibility of teachers and employees” and the “Ordinance on disciplinary responsibility of students”, which support the academic integrity and freedoms and constitute the basis for preventing (and sanctioning) of all types of intolerance, discrimination and non-ethical behaviour of students, teachers and employees. Student attorney participates in the procedures of settling students' general claims and of settling students' complaints related to marks, according to Article 25 of the Ordinance on studying at VSITE.

According to the documentation, in the previous period there were no recorded cases of infringement of academic integrity, breach of academic freedoms, non-ethical behaviour, intolerance or discrimination. This was reaffirmed by the Commission for Quality Management during the visit of the Panel, and the Commission only reported a few cases that lead to the removal of students from class due to occasional disturbance. Also, no cases of violation of ethics in research were recorded, as well as no disciplinary procedures against teachers or students were started in the previous period. The Commission for Quality Management only recorded the complaint of one student in 2019, which was referred to the Panel as being settled.

Final and graduation theses are screened for plagiarising (Ephorus + Turnitin) since 2013 and the curriculum of the study program contains the obligatory subject “Business Ethics” but, unfortunately, the feedback the Panel has got from the students shows that most of them do not understand the need for such a course.

## Recommendations for improvement

- VSITE should continue supporting the academic integrity and freedom in the College and should maintain the efforts to prevent all forms of unethical behaviour. VSITE should also continue improving the awareness of ethical behaviour in digital communication and business performance, for example through additional teaching content.

## Quality grade

High level of quality

### **1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role).**

## Analysis

VSITE provides information on its study programmes as well as on its technical, scientific and social activities through the College website. VSITE also has a Youtube channel, although it seems that the activity in the channel has significantly decreased in recent years.

Concerning the study programmes, the official website of VSITE allows to select the English language and provides a generic description of the study programmes in English. However, the detailed information on the study programmes can be only found in the Croatian version of the public website. In this part of the website (i.e., the part in the Croatian language), the activities of VSITE (about the institution, faculty staff, students and graduate students) are presented through periodical posts divided into subject sections. However, even the Croatian side of the VSITE website needs improvements to provide visibility to other aspects mentioned in other sections of this report (e.g., the strategic view of VSITE, more complete information on learning outcomes, and in general information that provides more visibility to VSITE activities).

The Panel also confirmed that the information on many other aspects of VSITE activities is published in the College website and/or in repositories, most of them in the Croatian language only. For example, the calls for the election of teachers are published on the web site of VSITE, and in the Official Gazette of the Republic of Croatia and in the EURAXESS. The VSITE Statute and The Academic Rules and Regulations are also available online in VSITE website. VSITE also publishes information on students' applications and enrolment, including the information on the whole process and data

on the enrolment quotas. The SCAD information system works as a background repository for such information. VSITE also releases the information on study programmes and on student life in the College in its Guide for Freshmen and in presentations on Youtube.

### **Recommendations for improvement**

- VSITE website should provide better visibility of achievements and quality related activities of the College (e.g., specific achievements of teachers and students, institution best practices, technical and scientific projects, cooperation with industry, etc.).
- The information regarding the study programmes could be further improved, for example providing more consistent information about learning outcomes.
- VSITE should make the English version of its website more consistent with the Croatian version, since the current situation is that the English version of the website only provides a rather partial view.

### **Quality grade**

Satisfactory level of quality

## **1.5. The higher education institution understands and encourages the development of its social role.**

### **Analysis**

The Panel recognizes that VSITE is committed to the development of its social role. However, the contribution of VSITE regarding the development of the economy (economic and technological mission of the higher education institution) should be increased. Some activities in that direction have been done but the contribution is somehow modest. VSITE is involved in two funded projects led by companies. Furthermore, a round table with businessmen held on 15<sup>th</sup> February 2019 has confirmed the interest of companies and other organizations to cooperate with VSITE in development and research projects. The Panel would like to encourage VSITE to increase the efforts to attract more projects, which will be positive for the College in many ways and will increase VSITE contribution to the development of the economy.

VSITE was also involved in two pro bono projects, which is also positive. However, there is no evidence that the College significantly contributes to the foundations of the

academic profession and the accountability of teachers for the development of the higher education institution and the local community.

### **Recommendations for improvement**

- The Panel recommends VSITE to increase, in general, its activities related to the development of its social role. More specifically, VSITE should take advantage of the good connections with companies and civil society organizations to increase its activities related to the development of its social role. More involvement of VSITE in projects seems particularly relevant to attain the goal of reinforcing the social role of VSITE, while obtaining many other benefits related to the project activities, with a particularly positive impact on students' and teachers' activities.

### **Quality grade**

Satisfactory level of quality

## **1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs.**

### **Analysis**

Although the current situation at VSITE concerning the delivery of lifelong learning programmes is still rather incipient, the Panel recognizes that VSITE is making positive steps towards this goal. In particular, the adoption of the Ordinance on lifelong education is clearly an important first step. Furthermore, during the visit, the Panel confirmed that VSITE is doing concrete actions towards the development of a lifelong learning program, such as the assessment of lifelong learning needs of the labour market and the IT sector. VSITE is also planning the introduction of e-learning as a basic tool for lifelong education.

### **Recommendations for improvement**

- VSITE should develop its lifelong learning program much further.

### **Quality grade**

Minimal level of quality



## II. Study programmes

**2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market.**

### Analysis

There is evidence that general goals of all study programmes are really in line with the mission and strategic goals of the higher education institution. Evidence is presently based on the analysis and the implementation of recommendations from professional organisations, as well as data on graduate employment.

The institution clearly defines a list of the general goals of the programmes offered with analysis of justification for delivering a particular study programme:

- Information Technology (432), professional undergraduate study programme,
- Information Technology (433), specialist graduate professional study programme.

The College organises and implements study programmes that are well harmonised with the computing curricula published by ACM and IEEE-CS. VSITE also gathers data on graduate employment with detailed statistics on employability of students that have graduated. As the statistics shows, the employability of graduates from both studies is very high (~> 95%). This suggests that both study programmes are well aligned with the needs of the labour market and VSITE graduates are issued degrees that are recognized in regulated professions.

In spite of these positive aspects, VSITE is not yet conducting a systematic labour market research (although it was recommended by the previous accreditation committee). Furthermore, there is no strong focus on concrete IT professions in later stages of education, which would guide students in choosing their major, and would help them in their integration in the job market afterwards.

### Recommendations for improvement

- Quality of the study programmes could be further improved if VSITE targets more specific IT occupations that are in demand on the labour market, specifically in the 2<sup>nd</sup> and 3<sup>rd</sup> years of the study programmes.

- VSITE is missing established procedures through which students could be introduced with needs of the market with clear guidance on how to choose their major, balancing their preferences and the current demand in the market.
- VSITE should conduct its own IT job market research to help students to profile themselves for specific IT occupations during the study programmes.

## Quality grade

Satisfactory level of quality

### **2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained.**

VSITE has clearly defined the learning outcomes of the study programmes, as well as the learning outcomes at course level. Additionally, the learning outcomes at the level of courses (clearly defined in the syllabus of all courses and available in the SCAD information system) are aligned with the learning outcomes at the study programme level.

However, information on the learning outcomes is not readily available on VSITE website and the Panel recommends VSITE to publish the learning outcomes in the College web page fully in Croatian and in English, together with all other relevant information about the study programmes and courses, so incoming students can be properly informed.

The perception of the Panel, gathered in the meetings with students, is that most of the students are not aware of the expected learning outcomes of the courses upon enrolment, and do not have a clear understanding of the professional knowledge and skills they expected to acquire in the study programmes. This perception reinforces the Panel recommendation to make the learning outcomes of all the courses and study programmes more visible to the student community, both in Croatian and in English. Partial information on the learning outcomes is available in the English portion of VSITE web page, while the Croatian part of the website contains basic information on all courses, but without detailing the learning outcomes. Furthermore, it seems there is no well-defined procedure to assure the regular updating of publicly available information on the VSITE website.

The available data on graduate employment, as well as the feedback received by the Panel in the meetings held with graduates, alumni and employers, clearly suggests that the learning outcomes of the study programmes do reflect the competencies required

by the employment market and prepare VSITE graduates for the continuing education needs of modern society.

The alignment of the study programmes with recommendations of professional associations is mainly adequate. The fact that the majority of professors are full-time professionals (i.e., they are external staff members at VSITE) favours this alignment, as external teachers naturally convey the view of professional associations to the courses they teach at VSITE.

Furthermore, the learning outcomes achieved in the graduate study programme are aligned with the CroQF and EQF level descriptors, although, concerning the Professional study, VSITE should improve the alignment with the IEEE/ACM syllabuses recommendations. VSITE is also a partner in the project for harmonising professional study programmes in computing with the Croatian Qualifications Framework but the results of this project are not yet reflected in the current study programmes.

### **Recommendations for improvement**

- The Panel recommends VSITE to improve the content of the College website, including all relevant information on the study programmes (learning outcomes included) in the public view of the website, as well as basic course information together with course learning outcomes.
- The Panel considers that VSITE website should provide more information on the study programmes and on all courses, including learning outcomes, in both Croatian and English.

### **Quality grade**

Satisfactory level of quality

## **2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers.**

### **Analysis**

The documentation provided to the Panel and the evidence gathered during the Panel visit shows that VSITE generally ensures the achievement of intended learning outcomes of the study programmes it delivers.

The Panel visited several practical labs and lecture classes at VSITE and confirmed that classes are properly taught, including practical classes with hands-on experience. The

laptops provided by VSITE are effectively used by the students and play a relevant role in the achievement of the expected learning outcomes.

Evidence of the achievement of the intended learning outcomes includes periodical testing in the form of various exams and exercises in labs, seminars and projects. The projects, however, are only used in the third year of the undergraduate study program.

The Panel meetings with students confirmed that students have the perception that VISIT revises and improves the teaching process on the basis of evidence of the achievement of the intended learning outcomes. Furthermore, the feedback from students in cases when courses are not properly organized or the assessment of the learning outcomes is questionable, seem to be considered and correctly addressed by VSITE. However, this process seems to be mainly reactive, and not the result of a systematic and periodic procedures.

### **Recommendations for improvement**

- VSITE should conduct periodic analyses of current assessment methods and practices across all courses, specifically for those that are pointed as a frequent cause of students' drop-out.
- VSITE should continue improving the process for testing practical student knowledge, including the assessment of the relevance of such knowledge for the real world and professional contexts. Outcomes of such testing should ensure that students are capable of coping with engineering problems in the real world.

### **Quality grade**

Satisfactory level of quality

## **2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes.**

### **Analysis**

VSITE effectively uses the feedback from students and other stakeholders, such as employers and alumni, to introduce adjustments in the study programmes. The Panel meetings held during the visit largely confirmed that the process in place for the introduction of adjustments and improvements of the study programmes relies on relatively informal mechanisms but, due to the small size of the College, it works quite satisfactorily. Nevertheless, VSITE would benefit from a more formalized and scalable approach to collect and process the feedback from stakeholders concerning the management of study programmes' life cycle.

Examples of improvements to the study programmes based on feedback from students confirmed that VSITE is open to the introduction of changes based on student inputs and the general opinion of students is that VSITE is quite open to their opinions and requests. The retention policy and course evaluation described in the documentation are conducted in reality. However, some recurrent complaints from the students, such as the increase of practical real life examples of projects before 3<sup>rd</sup> year have not been considered yet in the professional undergraduate study programme adjustments.

Input from external stakeholders such as employers, professional organisations, alumni and civil society organisations is present but is somewhat feeble, since VSITE predominantly relies on its own internal analysis and on the students' feedback.

The high dropout rate in some courses is clearly a concern at VSITE and the College has tried to mitigate such a problem through the introduction of different adjustments. However, the heads of study programmes and the vice-deans at VSITE consider that the problem is partially caused by external reasons, such as the fact that many students find jobs and therefore are unable to finish the study because of a lack of time.

VSITE maintains up-to-date versions of the study programmes on the College website but, as explained in point 2.2, the website should provide more information on the study programmes and on all courses, including learning outcomes, in both Croatian and English. VSITE also records the changes to study programmes and has all programme versions publicly available, although the analysis of the changes and the justification of the improvements could be more detailed.

### **Recommendations for improvement**

VSITE should continue the good work in getting and pondering the feedback from students, employers, alumni and other stakeholders to improve and, in a more general sense, to manage the life cycle of the study programmes. Some suggestions for further improvement are:

- To formalize the process used to collect and use the feedback from stakeholders;
- To improve publicly available information (i.e., more complete and more consistent) on the study programmes;
- To continue the efforts to improve aspects recurrently identified by the different stakeholders as points that must be improved/revised in the study programmes, such as the high dropout rate.

### **Quality grade**

High level of quality

## **2.5. The higher education institution ensures that ECTS allocation is adequate.**

### **Analysis**

The Panel recognizes that ECTS allocation to courses and monitoring the students' effort to confirm that the number of allocated ECTS is correct is quite a difficult problem.

At VSITE, the ECTS allocation to courses is generally adequate but some courses are clearly perceived by the students as requiring a much higher effort. The Panel meetings with the students also revealed that many students are not aware of the meaning of ECTS. However, once the ECTS meaning is explained, students generally consider that several courses do not have the correct number of ECTS. For example, Introduction to Programming has 8 ECTS but the students pointed out this course as an example of a course that requires more effort from the students than the effort represented by 8 ECTS.

The ECTS for different activities in each course are clearly defined at VSITE, but there is no clear strategy to systematically monitor the students' effort and to detect deviations from the planned ECTS. It seems the only mechanism in place is to rely on students' complaints about possible excessive effort in specific courses. The procedures to handle such situations and introduce adjustments in the student load are also not clearly defined.

### **Recommendations for improvement**

Courses already identified (based on students' complaints) as potentially requiring more effort than the effort resulting from the ECTS allocated (e.g. Introduction to Programming and Programming Methods and Abstractions), should be revised or the number of ECTS should be adjusted. Actually, this recommendation was already provided by the previous reaccreditation report in 2012.

VSITE should improve the mechanisms to monitor the students' effort in different activities in all courses to assure that the ECTS allocated to each course are effectively aligned with the real average effort spent by students in the course.

VSITE should ensure that all the students understand and are aware of the meaning of the ECTS allocated to the courses.

### **Quality grade**

Minimum level of quality

## **2.6. Student practice is an integral part of the study programmes.**

### **Analysis**

VSITE has very good cooperation with external stakeholders, which has the positive effect of bringing the real world perspective to the student practice in the courses. In particular, most of the lectures in the semesters of 2<sup>nd</sup> and 3<sup>rd</sup> years of study are taught by external teachers, many of them are employees in different companies. These connections allow VSITE to easily send students to perform their professional practice in relevant IT companies.

However, the duration of the industrial placement is only two weeks (10 days), which does not seem enough for the students to gain valuable hands-on experience that would allow them to apply the lessons learned in the real world environment. The student activities during the practical training are recorded in the trainee's log. The observation of some examples of these logs by the Panel has shown that the logs are quite detailed and have to be approved and signed by the stakeholder, which is a good practice to ensure the quality of the student training. However, the student's log does not include a questionnaire for the stakeholders in order to obtain feedback regarding the required skills from students and the level of their knowledge, among other, relevant information.

The Panel confirmed during the visit to VSITE that students are generally satisfied with practices performed in the companies. They stated that they often manage to find a job through the teacher's recommendations to the companies. On the other hand, students explained that they would prefer to have more emphasis on the practical work and less theoretical teaching. A possible solution could be to increase the ECTS allocated to practical training.

### **Recommendations for improvement**

The Panel recommends VSITE to continue improving the monitoring of student practical training activities performed in companies, including the careful selection of the companies that receive VSITE students:

- VSITE should not allow students to do practical work in companies that are not profiled in IT professional field. The Panel believes that companies involved with basic software usage (MS Word, Excel, PowerPoint etc.) do not represent good places for students to do practical work.

- Student's practical work should have the adequate level of complexity and should involve tools and technologies well aligned with the current professional occupations in the IT market.
- The assessment of the student's practical work should be verified not just by the signature of the employer but also by teaching professionals from VSITE, to assure the uniform and correct assessment of student's achievements.

The Panel also recommends VSITE to investigate the possibility of increasing the duration of professional practice, and the corresponding ECTS allocated.

### **Quality grade**

Satisfactory level of quality



### III. Teaching process and student support

**3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied.**

#### Analysis

The VSITE Statute and The Academic Rules and Regulations both include detailed entrance classification procedure, which starts with the Call for Admission of Students published every year. The document lists all of the requirements and quotas for both undergraduate and graduate studies, covering both full-time and part-time students. The Call is published online on VSITE web page. The procedure established in the previously mentioned documents is consistently applied to all the applications, and rankings after the entrance classification procedure are afterwards deposited in the SCAD information system.

According to the Academic Rules and Regulations the scoring system of the entrance classification procedure consists of points awarded from grades achieved in prior education, which include state Matura exam results and grades from secondary school. Furthermore, the College conducts an interview with all applicants and only those who accomplish a positive evaluation during the interview can enrol in the College. Although in the previous re-accreditation process it was recommended to introduce an entrance exam to check the capabilities of future students, considering the high drop-out rates at VSITE, during the Panel visit the Management expressed an opinion that the entrance exam would further lower the number of enrolled students, and they would like to give an opportunity to study to a larger number of applicants. During the meeting with both full-time employed lecturers and external lecturers, the Panel gained an impression that the lecturers are aware of the fact that prior knowledge among students is quite uneven, and that teachers try to compensate for that in a positive manner. However, some students have the opinion that their colleagues with lower grades should not have enrolled to the College and that an entrance exam would be a proper way to select appropriate candidates.

The mechanisms for recognising prior learning are regulated in the Terms and Conditions for Transfer to the Professional Study Programme in Information Technologies. The admission decision is based on the certified transcript of grades for courses passed on the previous HEI, as well as on additional curriculum information. The Terms and Conditions also includes a full list of courses that are recognised from HEIs that the students transfer frequently from. VSITE provided several examples of recognising prior learning along with the course recognition survey conducted by the

Student Office where 80% of the examinees stated they were satisfied with the process of recognising prior learning and 60% of the examinees stated they were satisfied with the number of ECTS credits recognised from their prior HEI.

### **Recommendations for improvement**

It is quite evident that the high dropout rate is partly related to the current selection process of candidates, which allows the enrolment of students with insufficient background knowledge. The Panel recommends VSITE to assess the previous knowledge of the applicants, not as an eliminative factor but as a tool to develop extra help for students that are less prepared, in the form of extra (and mandatory) workshops and reading materials, to be completed before the start of the first semester.

### **Quality grade**

Satisfactory level of quality

### **3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study.**

#### **Analysis**

The procedure for monitoring student progress is clearly defined in the Study programme performance analysis (RP-22), and is conducted annually at student, group, course and study programme level. This information is available to lecturers, heads of departments/study programmes, vice-dean for education, dean and students via the SCAD information system, which tailors the information provided according to the adequate level of detail and authorisation for each group.

The information on student progress is regularly analysed by the lecturers, heads of departments and study programmes, and the vice-dean for education, who initiate necessary actions according to their respective functions. During the visit to the College, students stated that the lecturers conduct activities such as repetition sessions, additional tutoring or workshops to increase pass-rates. Furthermore, teachers regularly send warning emails to students who did not attend classes for a longer period of time. The vice-dean noted that the College especially monitors the first-year students via telephone calls, in order to reduce the drop-out rates in early stages of studying. The documentation provided to the Panel also includes other examples of measures designed to increase pass rates, such as the organisation of additional

sessions and counselling, the introduction of student teaching assistants and small adjustments in the syllabi of the courses. The information on student progress is collected and analysed after the necessary actions are taken, and the results are discussed to assess the need of additional actions.

### **Recommendations for improvement**

The Panel considers that VSITE is monitoring students' progress in a satisfactory way, and is implementing correct measures to mitigate the problems identified and help students to complete their study programmes. However, considering the high dropout rate, the Panel believe there is a clear margin for improvement.

The actions initiated by VSITE after the analysis of the student progress should be replicated as early as possible in each study program, to mitigate the known deficiencies in previous knowledge of many freshmen and have an expected positive impact in the reduction of the dropout rate.

The Panel also recommends VSITE to try to differentiate internal causes of low pass rates from the external ones, and take adequate actions to mitigate the internal causes or eliminate them.

### **Quality grade**

Satisfactory level of quality

## **3.3. The higher education institution ensures student-centred learning.**

### **Analysis**

The Academic Rules and Regulations contains the list of various modes of programme delivery used at VSITE, and every syllabus contains the modes of programme delivery used for that particular course. The College is determined to encourage the lecturers to implement various interactive teaching methods, and during the Panel visit both the lecturers and the students gave examples of various teaching modes used at the College such as individual and group projects and cooperative learning. Furthermore, VSITE organized a workshop for the exchange of knowledge on teaching techniques in the academic year 2016/2017. Unfortunately, this workshop was not repeated in subsequent school years.

Most of the interactive teaching methods are introduced in the third year of the study programme, while the first and second years of the study programme include very few courses which use those teaching methods. Furthermore, the College lacks courses based on creative and critical thinking, especially in the graduate level of study.

The continuous evaluation of teaching methods is regulated in the Evaluation of teachers' work based on the assessment of colleagues (RP-34). The College provided multiple examples of assessment, which includes the assessment of teaching methods used and the level of students' participation along with the complexity of students' critical thinking.

The teaching methods are adopted to a diverse student population present at the College. The classes for part-time students are held in the afternoon and they can enrol a lower annual workload. Exams are adjusted to underrepresented students who submit a certificate from NCEEE.

The usage of SCAD information system enables the modernisation of teaching at the College. During the visit to the College, the Panel had the opportunity to analyse the SCAD information system and confirmed that SCAD provides complete teaching materials and additional materials for students in each course. SCAD information system is also used for communication between teachers and students.

The teachers at the College encourage autonomy and responsibility of students using various methods in their courses. Students are obliged to study and prepare for exercises at home and an entry exam is organised to check their readiness. Students are also encouraged to work independently through projects and seminar works. However, during the visit to the College, the Panel witnessed that some students lack the motivation to participate in different research-based learning methods such as individual and group projects or critical thinking and it seems that lecturers are not generally aware of the fact that they should motivate the students not only to pass the exams, but to continuously participate and critically approach the programme delivered to them.

### **Recommendations for improvement**

The Panel recommends the introduction of interactive and project-based teaching methods in more courses, particularly in the initial years of the study programmes. Additionally, teachers should make even more effort to encourage creative and critical thinking among students, especially at the graduate level of study.

The workshop on teaching methods held in 2016/2017 is an example of a good practice to encourage lecturers to adopt various teaching methods. The Panel recommends VISITE to hold similar workshops annually to promote the continuous improvement of

teaching methods, particularly among the new lecturers. Workshops addressing pedagogic methods to promote students' motivation and engagement should be also held regularly.

### **Quality grade**

Satisfactory level of quality

### **3.4. The higher education institution ensures adequate student support.**

#### **Analysis**

The College is generally committed to providing guidance on studying and career opportunities to their students. However, although VSITE has established the Career Centre, which is regulated by the Rules on the Career Centre, it seems that it is not functional in practice, as the career guidance is being provided on an individual level by the lecturers. During the meeting with the students, the Expert Panel gained the impression that the students are not aware of the existence of the Career Centre at VSITE, but they are satisfied with the support provided by their lecturers.

Students are overall satisfied with the support from the Student Office and the support is tailored to a diverse student population present at the College. However, it seems that the College lacks procedures that would regulate various types of counselling, which are handled individually by the lecturers at the moment. The students told the Panel in the meetings held during the visit to VSITE that they will always get the information they need, but they also mentioned that they often do not know whom to ask for certain information, and that the information is mainly provided by VSITE in a reactive fashion, on students' initiative.

The Student Office is open both in the morning and in the afternoon to serve both full-time and part-time students. The students' satisfaction with the effectiveness of the non-teaching staff at the College gave the impression that the College employs an adequate number of qualified and highly committed non-teaching staff. The College plans to start conducting a student survey about the services available to students starting in the academic year 2019/2020.

#### **Recommendations for improvement**

The Panel recommends VSITE to increase the activity of the Career Centre. It is true that the current situation in the informatics job market is quite favourable, but the Career

Centre should refocus its activity on supporting students to find better jobs (instead of just finding a job). Information and counselling on career opportunities should be available to students, and all of them recognize the Career Centre as the place to start in knowing more about career opportunities.

It is also recommended to establish more functional procedures for the various types of student support services available at VSITE, and make such services more visible to the students, as the Panel realized that many students are not aware of support options available to them at VSITE.

### **Quality grade**

Satisfactory level of quality

### **3.5. The higher education institution ensures support to students from vulnerable and under-represented groups.**

#### **Analysis**

VSITE keeps records about the students from vulnerable and under-represented groups and monitors their needs. The SCAD information system is used to manage such information. During the Panel visit, the Management stated that the number of students from vulnerable groups is very low, which allows a personalized approach to provide the needs and their well-being of all the students in these groups at VSITE.

The students from vulnerable groups can submit a NCEEE certificate during their enrolment at the Student Office, which enables the possibility of extension of exam time. The vice-dean for students is responsible for informing the lecturers about individual needs of such students.

The College invests adequate resources in the support to students from vulnerable and under-represented groups. The classes for part-time students are organised solely in the afternoon hours. Disabled students can access all VSITE premises via elevators and ramps. Furthermore, the Management also gave an example of provision of financial support to students from vulnerable groups, as they offered a disabled student to study for free at the College.

#### **Recommendations for improvement**

The College should continue to monitor the needs of their students from vulnerable and under-represented groups and adjust to them in a way they have been doing. However,

once they notice that the number of the students is increased and that they cannot handle them on an individual basis anymore, VSITE should consider introducing a more formalised form to address this issue.

### **Quality grade**

High level of quality

### **3.6. The higher education institution allows students to gain international experience.**

#### **Analysis**

VSITE has established International Cooperation and Mobility Office to inform students about the opportunities for completing part of their study abroad. Students are informed at the introductory lecture in the beginning of their first study year and flyers promoting international mobility are given to students. Moreover, international mobility is promoted via VSITE public website and SCAD information system. Another way of encouraging students to apply for exchange programmes is the VSITE decision to exempt students from paying tuition fees at VSITE while studying abroad.

Although VSITE has invested considerable efforts in the promotion of international mobility among students, according to the MOZVAG table 3.6 (Total student mobility), only one student participated in an exchange programme in the last 5 years. During the visit to the College, almost none of the students expressed the will to participate in the Erasmus+ mobility project. It seems that students are informed about the project in general, but not about the opportunities and experiences they can gain while participating in such an activity. Also not many students are familiar with the existence of Erasmus Internship programme.

Although none of the Erasmus+ mobilities have been carried out yet, during the visit to the College, the Management stated that the recognition of ECTS credits gained during the exchange programmes would be handled by the departments which would decide whether the courses completed abroad correspond to the courses at the College. The College collects information on students' satisfaction with the exchange programme in general, but it does not collect information on their satisfaction with VSITE's support regarding the exchange programmes.

Apart from international mobility opportunities, students have an opportunity to gain some competences required for working in an international environment through

mandatory English language courses, recommended literature in English and attending lectures held by incoming foreign lecturers at VSITE.

### **Recommendations for improvement**

Although VSITE invests apparent effort in informing the students about the exchange programmes available to them, the results achieved are at a minimal level. VSITE should increase the effort and frequency in the promotion of the exchange programmes opportunities among students, especially in most advanced years of the study programmes.

It seems that the students are not aware of the real reasons why they are not interested in applying to exchange programmes. It is recommended to investigate the reasons underlying the students' disinterest in applying to exchange programmes and act directly on changing the current situation.

Students should be informed about the actual opportunities and experiences they would gain from participating in international mobility programmes and it is recommended to use experiences from students who already completed a part of their study abroad, as an example to bring the students closer to what they should expect from going abroad.

The Panel also recommends VSITE to publish information about international mobility on VSITE website periodically to remind the students about the Call deadlines and the opportunities to apply. It is also recommended to collect information on student satisfaction with the quality of the support provided regarding the international mobility and to adjust the support services accordingly.

### **Quality grade**

Minimum level of quality

**3.7. The higher education institution ensures adequate study conditions for foreign students.**

### **Analysis**

VSITE has established the International Cooperation and Mobility Office and has appointed an ECTS coordinator who conducts the recognition of ECTS credits from another HEI. The information on the opportunities for application and studying at the College is available to foreign students. However, the quality and quantity of given



information is questionable. The VSITE website lacks clear navigation for foreign students to get quality information about their opportunities and actual experiences they can get while studying at VSITE and it only consisted of documents containing general information about VSITE and Erasmus+ project.

According to the MOZVAG table 3.6 (Total student mobility), only three student mobility programmes were completed and one is currently in progress. Although this sample is small, VSITE assured the Panel that it has tried to collect feedback on student satisfaction, but these students have not attended many lectures and the collection of such information was difficult. The evidence provided from foreign students' activities at VSITE suggest that foreign students are satisfied with the study quality and student life quality at the College.

VSITE has a list of courses delivered in the English language available to their foreign students on the VSITE public website. The list includes courses separated into different levels of availability in the English language. According to the list, only courses of English languages are delivered fully in English (Level III). Furthermore, even the numbers of Level II (lectures are in Croatian, but the presentations are bilingual) and Level I (lectures are in Croatian, but the literature is in English and foreign students have separate consultations with the lecturer) are really low - five and eight courses, respectively.

### **Recommendations for improvement**

The Panel recommends the improvement of the public website of VSITE to emphasize the information for foreign students who might be interested in studying at VSITE. The numbers of foreign students at VSITE are low and an obvious way to increase these numbers is to give better information about studying at VSITE.

It is also recommended to increase the effort to collect more detailed foreign student feedback on their satisfaction, not only related to studying at VSITE, but also the feedback on the support given to foreign students during the application phase.

The Panel also recommends to include more courses delivered in English on every level (I, II and III), especially to introduce courses delivered fully in English (Level III). Having more courses delivered in English means having more opportunities for foreign students, which results in gaining more interest among foreign students.

### **Quality grade**

Minimum level of quality

### **3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements.**

#### **Analysis**

The criteria and methods for evaluation and grading at VSITE are regulated by the Academic Rules and Regulations and are available to students within the SCAD information system, prior to the beginning of each course. According to the examples of the general rules of the course submitted as evidence in the documentation, the published criteria and evaluation methods are clear and aligned with the teaching methods used in each course. Also, student feedback about grading is fairly positive according to the student polls. During the visit to the College, the students confirmed that lecturers use appropriate evaluation methods for their courses and take into account all of the activities performed in the course.

VSITE provides support to the teachers in the development of their testing and assessment methods, for example through the promotion of workshops such as “Assessment and grading of student learning outcomes” which was organised by an external entity.

The College also carries out the evaluation of grading and specifically analyses the objectivity and reliability of grading through meta-evaluations of reliability of grading methods, as described in the documentation. The meta-evaluation conducted suggests that grading methods used at VSITE are objective and reliable. The Panel is aware of the difficulty in assessing the quality and accuracy of grading and acknowledges the efforts made by VSITE. During the visit, the Panel confirmed that the students are generally satisfied with the reliability of grading and explained that the low pass-rates at the College are caused by students who do not prepare and study properly for the exams or laboratory exercises. The students also mentioned that when students feel that their grades are not reliable or objective, they have the right to fill a student complaint, and that is considered a normal practice at VSITE. Furthermore, some teachers implement double grading in some courses, as an additional measure to assure the objectivity of grading.

VSITE takes into account the special circumstances of certain groups of students, and students who submit a NCEEE certificate to the Student Office have the right to adjusted exam schedules.

Students receive appropriate feedback on the evaluation results through SCAD information system. Additionally, students have the opportunity to inspect all the elements of their grade and they are fairly satisfied with the functionalities of the SCAD system regarding the feedback they receive.

### **Recommendations for improvement**

VSITE should continue improving the good practices concerning the assessment of students' learning achievements. Although the meta-evaluations are already conducted at VSITE, it is recommended to introduce peer-to-peer evaluations of grading methods and results, which can be used as an additional measure to ensure the reliability and objectivity of grading methods.

### **Quality grade**

High level of quality

## **3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations.**

### **Analysis**

The College issues appropriate documents (Diploma and Diploma Supplement) to students upon the completion of their studies. The documents are in compliance with the Rules on Content of Diploma and Diploma Supplement (Official Gazette no. 77/08, no. 149/11).

The Diploma Supplement is issued by the College in both Croatian and English, free of charge. As stated in the Self-Analysis, student feedback has shown that students have no issues with the recognition of the diplomas issued by VSITE.

### **Recommendations for improvement**

VSITE should keep the level of quality achieved in issuing students' diplomas and diploma supplements.

### **Quality grade**

High level of quality

## **3.10. The higher education institution is committed to the employability of graduates.**

### **Analysis**

VSITE maintains contacts with their alumni through the Alumni Club. The College also keeps contact information on all of their graduates within the SCAD information

system, which enables VSITE to contact them and collect information via polls and interviews. Polls are used to analyse the employability of their graduates, but also to collect information about their satisfaction with the study programmes and their alignment with social and labour market needs. During the visit to the College, the alumni and external stakeholders confirmed that they are often contacted by VSITE and occasional meetings are arranged to discuss possible adjustments to study programmes at VSITE. The results of the employability analysis have shown that only about 5% of VSITE graduates are currently unemployed.

The College informs their prospective students about the opportunities of employment after graduation and provides them with support regarding future career planning. Although the Self-Analysis states that the activities are conducted by the Career Centre, during the visit, the students informed the Expert Panel that they are not familiar with the Centre and that the support is provided individually by the lecturers, but that they are satisfied with the support provided.

### **Recommendations for improvement**

The Panel recommends VSITE to provide more formalised support regarding future career planning and finding employment after graduation through activating the function of the Career Centre, which is currently not recognised by the students.

It is recommended to inform students about the opportunities to continue their education either at VSITE or another higher education institution if it is more suitable for them.

### **Quality grade**

Satisfactory level of quality

## **IV. Teaching and institutional capacities**

### **4.1. The higher education institution ensures adequate teaching capacities.**

#### **Analysis**

VSITE follows the prescribed legal regulations that ensures the employment of adequate teaching staff. Currently, the College employs ten teachers on a permanent basis (eight lecturers, one senior lecturer and one college professor) and two college assistant professors. The number and qualifications of teachers are adequate for the study programmes and for the achievement of the intended learning outcomes. However, only two lecturers and two assistants are from the field of computer science.

The ratio of students and full-time teachers at VSITE has increased in recent years but it stabilized after 2016/17 and was 1:27,6 in 2017/18, which is within the limit defined by the legal regulations.

The average teachers' annual workload is 492 hours, which is roughly 10% above the norm. The teaching load is reasonably well-balanced among teachers but this relatively high load does not allow much time for the professional and personal development of the teaching staff. The positive side of this relatively high teaching load is that it assures that the permanently employed teachers at VSITE cover 40% of the teaching needs of the study programmes, which clearly exceeds the minimum of 1/3 required by law.

#### **Recommendations for improvement**

VSITE should consider reducing the teaching load of the permanently employed teachers as an encouragement for the development of the professional and/or scientific activities of teachers, such as the participation and promotion of projects at VSITE, production of publications, development of more teaching materials and improvement of teaching competencies.

#### **Quality grade**

High level of quality

#### **4.2. The higher education institution ensures appropriate quality of external associates.**

##### **Analysis**

Currently, VSITE has thirty-two active external teachers and thirty-three external associates. The quality of external teachers is mainly assessed through their published works, taking into account their field of expertise. This approach is questionable since the publication record per se is not a comprehensive and reliable way of assessing teaching and professional competence. Furthermore, some of these external teachers are hired by other institutions and their publications are mainly related to their research and professional activity and projects in their original institutions. In any case, the trend in recent years shows an increase in the number of publications from the external teachers. The quality of the venues of such publication is very uneven.

The meetings held during the site visits showed that the quality assessment of external teachers at VSITE actually involves other elements that are less emphasized in the documentation provided to the Panel, such as the number and quality of projects and, especially, the evaluation from the students' surveys performed at the end of each semester. The Panel considers that, globally, the assessment of the quality of the external teachers at VSITE is appropriate, even if the documentation provided does not convey a complete view.

The external teachers constitute a relatively stable group, as a considerable share of them have been involved in teaching activities at VSITE for many years. Furthermore, as more than 90% of the external teachers are employed by companies as primary contract, they effectively convey the labour market view and needs to the study programmes and to the courses they are involved in, shortening the distance between teaching and industrial practices, with clear advantages for the students. A specific point in which the "proxy" role of the external teachers is recognized as being quite positive is the promotion of students' mentorships in the companies, as well as the active involvement of the external teachers as supervisors of the graduation theses.

##### **Recommendations for improvement**

Although the evaluation process of the external teachers includes in practice an acceptable arrangement of different elements, the process could be improved with the formalization of the explicit elements used in fact in such assessment. This would have the additional advantage of providing external teachers with an easy and complete view of the evaluation framework used by VSITE to ensure appropriate quality of external teachers.

The list of institutions/companies where the external teachers are primarily employed, and their positions in such institutions should be made more visible to students to promote the connection of students with potential industry internship sources and the labour market in general. Additionally, since this list includes a considerable number of companies, VSITE should consider making this list visible on its web page, as an example of industrial partners that have links with VSITE.

### Quality grade

Satisfactory level of quality

#### **4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures, which include the evaluation of excellence.**

### Analysis

The recruiting process is described in detail in the documentation provided to the Panel and the entire procedure is generally aligned with the development goals of VSITE and with the legislation and internal regulations in effect.

The promotion process is not detailed in the documentation, as it is basically mentioned that the promotion of teachers into higher academic titles is identical to the recruiting process. This is questionable, since recruiting and promoting have inherent differences that are not addressed adequately in the documentation provided to the Panel. The same can be said for the reappointment of teachers (contract renewal), as the documentation simply states that reappointments follow the same process of the recruitment, and references the annexes that indicate the list of relevant documents for both promotion and reappointment of teachers.

The information gathered during the site-visit to VSITE provided the Panel with a more complete view of the promotion and reappointment processes, particularly to what relates to the periodical evaluation of the teachers' activities, which includes the involvement in projects, publications and teaching activities. Nevertheless, there is clear room for improvement in what concerns the definition of more explicit procedures for the promotion and reappointment of teachers, making the process more visible and transparent for the teachers.

## Recommendations for improvement

VSITE should continue improving the process of recruitment, promotion and reappointment of teachers. In particular, promotion opportunities should be planned ahead and announced in a transparent way to all the teachers to encourage improvement and establish excellence rewarding practices for teachers at VSITE.

Evaluation elements that are already used by VSITE to some extent (e.g., funded projects, supervision of final and graduation theses, authorship of textbooks and other types of publications) should be promoted more effectively to create the perception among teachers that such achievements are necessary elements to achieve excellence.

## Quality grade

Satisfactory level of quality

### **4.4. The higher education institution provides support to teachers in their professional development.**

## Analysis

The professional development of teachers is reflected in the strategic plan of VSITE and is mainly carried out at the department level, supported by the Professional Development Plan. The documentation presents examples of formal education gathered by teachers as a result of the Professional Development Plan, as well as more informal workshops that are run regularly to improve specific aspects of teaching methods. During the visit the Panel got a better perspective of the practical implementation of the Professional Development Plan and acknowledges the efforts made by VSITE to support teachers in their professional development. The opinion of the students on the quality of teaching is highly positive, and that includes aspects that are directly related to professional development of teachers such as the topics addressed in the periodic workshops.

The equipment (laptops and software) provided to teachers, as well as the support systems in place to maintain such equipment, is considered by the teachers a good support to help them in their daily routines, which includes their professional development.

In spite of these positive aspects, there is clear room for improvement in VSITE concerning supporting the professional development of teachers. The Professional Development Plan is generic and the process could be improved through individual



development plans for each teacher, that would allow much more detailed monitoring. Furthermore, mobility of teachers is almost non-existent, as well as the participation in projects. VSITE is currently involved in two projects, reported in the documentation, but during the visit the Panel could not see evidence of teachers' involvement in such projects (beyond the involvement of management).

### **Recommendations for improvement**

The Professional Development Plan should be made more visible to the teachers' community at VSITE and should be promoted to encourage teachers to participate in professional development activities available (e.g., training workshops) but also to motivate them to seek other opportunities to increase their technical and teaching skills, such as participation in projects, mobility leaves, and teaching networks, ideally on an international level.

The Professional Development Plan is generic and it could be improved through the creation of individual professional development plans for teachers to increase focus and to allow detailed monitoring of teachers' development activities. Other possibilities for the instantiation of more detailed views of the Professional Development Plan may include the creation of plan profiles to address the professional development of identified groups of teachers with similar development needs.

VSITE should also increment the involvement of teachers, namely experienced teachers, in the promotion and evaluation of the professional development of their colleagues, to strengthen cooperation and good teaching practices exchange among peers.

### **Quality grade**

Satisfactory level of quality

**4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity.**

### **Analysis**

The classrooms are clearly satisfactory considering size and basic equipment (tables, chairs, video projectors, etc.) available in the classrooms. The number of classrooms is adequate for the students currently enrolled at VSITE. The laboratory equipment, tools

and software are also generally satisfactory. Some of the equipment, such as the laboratory kits for teaching digital systems, have been designed and developed by VSITE, which provides great control of the pedagogic features of the equipment. The students, however, do not have much contact with the laboratory equipment for computer networking, server administration and virtualized server infrastructures. This is partially compensated by the access of the students to the worksite STORM, which is not in the VSITE main facilities.

All the students receive a laptop with the software required for the different courses already installed and the logistics in place to maintain such a high number of laptops seems to work well. The opinion of the students about the laptops and the software installed is generally positive.

Concerning the general facilities and common spaces available for the students, there is considerable room for improvement. Common spaces for the students (e.g., a students' room) are scarce or basically non-existent. The fact that the building is shared with other institutions, namely the Technical School Tesla, makes it difficult to convey a sense of belonging to the students (and to the rest of the VSITE community), as most of the common spaces are shared by the students from VSITE and from the Technical School Tesla.

### **Recommendations for improvement**

VSITE should continue improving the space, equipment and the entire infrastructure. In particular, VSITE should consider creating a small scale pedagogic datacentre to be used to train students in systems and network management, including a variety of technical administration aspects such as security, performance (including tuning) and management of virtualized infrastructures.

The Panel considers that the creation of a students' room that could work as a meeting point for VSITE students, providing the students with a comfortable space to work and to discuss topics related to the different courses, could be highly beneficial. Furthermore, such common space for students will help increasing the sense of belonging, as the students' room could be used as a display (e.g., through posters decorating the walls) to show VSITE projects and partners.

### **Quality grade**

Satisfactory level of quality

#### **4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity.**

##### **Analysis**

VSITE has used the library from the Technical School Tesla since 2017, and the contract includes a designated area for the library material from VSITE. The library has a reading room but, unfortunately, it is rarely used by the students, maybe because the classic library setup is not appealing to the students anymore. This was confirmed by both the students and the teachers during the visit of the Panel.

The collection of books and manuals that directly supports the courses is not vast (79 titles, as mentioned in the documentation) but the students confirmed during the visit that the access to pedagogic material is not a problem. Students stated that they mainly used the PDF versions of the books and textbooks, although VSITE provides the students with physical copies of the textbooks used in some courses.

VSITE has also a contract with Springer online library that provides access to the collection “Professional and Applied Computing 2016, 2017 and 2018”, accessible from any computer connected through the VSIT IP network addresses. This collection seems important mainly for the teachers, as the meetings of the Panel with the students revealed that most of the students rarely use the Springer online collection. Students have also access to some technical magazines.

One aspect that is highly appreciated by the students is the fact that all the pedagogic materials are available through the SCAD information system.

Although the availability of textbooks and resources tailored to the courses is clearly positive at VSITE, the Panel thinks that students should be provided with a broader literature perspective on the area that should include alternative sources, in addition to the textbooks used in each courses. Students should also be encouraged to use literature in English, as the technical terms and conceptual definitions in informatics and computer sciences use English as a universal language, which is important for the job market even in a national perspective.

##### **Recommendations for improvement**

VSITE should continue improving the pedagogic resources and technical literature available to the students and teachers. It is important to enlarge the scope of options available as bibliography for the courses, to provide students with a broader context and establish habits of using multiple sources. Furthermore, VSITE should encourage

the students to complement their learning and training using technical literature in English, since the technical terms in informatics and computer sciences are established in English (not to mention the fact that English plays the role of “lingua franca” in the informatics job market).

### **Quality grade**

Satisfactory level of quality

## **4.7. The higher education institution rationally manages its financial resources.**

### **Analysis**

The documentation provided to the Panel shows a balanced financial situation, although the level of detail provided is relatively coarse-grained. VSITE is highly dependent on tuition fees, which is not surprising considering that VSITE is a private institution.

Both the documentation and the information gathered during the visit of the Panel indicate that the available resources are in fact used to promote growth and development of VSITE. However, the amount of resources available to invest in the development of VSITE is relatively modest.

The Panel acknowledges as quite positive the participation of VSITE in funded projects, especially in the project entitled “Developing a Self-learning Software for the Detection of Suspect Behaviour” that is supported by funds from the European Union. The documentation is poor in what concerns details of this project and the project is not visible at VSITE (i.e., no signs of technical involvement of teachers and students) but, at least from the financial point of view, funded projects are clearly very important to VSITE and the institution should increase the efforts to have more funded projects.

### **Recommendations for improvement**

The Panel strongly encourages VSITE to seek additional funding sources to gain some tolerance to possible fluctuations in the tuition fees. Particularly, national and international funded research projects (which have many other benefits in addition to the finance aspects) seem the best instrument to get significant additional resources that could allow larger investments in facilities and equipment.

### **Quality grade**

Satisfactory level of quality

## V. Professional and/or scientific activity

**5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific research.**

### Analysis

The documentation provides a list of VSITE publications categorized in accordance with the Decision on the Conditions for Assessment of Teaching and Professional Activity in the Procedure of Appointment to Teaching Grades of the Council of Polytechnics and Colleges. In particular, VSITE provides data from the MOZVAG database, given in Table 5.1 of the analytic supplement to the Self-Analysis, from which it is evident that the employees are active in publishing mainly professional publications. There is evidence of publishing a few scientific publications, which are listed in the CROSBİ Overview by institution: College for Information Technologies, Zagreb (297) (<https://www.bib.irb.hr/pregled/ustanove/297>). However, only a few of the listed publications are published in internationally recognised journals. Most of the publications (conference publications, monographs, etc.) are published in the Croatian language and at international conferences held in Croatia. VSITE teachers and associates have not published any monographs in well-known foreign publishing houses.

During the visit to VSITE, the Panel got access to the printed versions of the published textbooks by VSITE teachers and associates. All of the published textbooks are in Croatian and are used for teaching at the college. Students find the published textbooks by VSITE relevant and useful.

The h-index of VSITE is 2 for the last two years, which is small compared to the number of staff, especially if we take into account the fact that there are scientific articles in the field of technical sciences, which means that the impact of those articles is rather modest.

There are inconsistencies in the data provided in the Self-Analysis for the period 2013–2018 and the Analytical supplement to Self-Analysis. This was clarified during the meetings, as it was explained that the relevant data are given in tables in the later document.

In order to improve the publishing process VSITE has established a plan for scientific-research work, including participation, organization and publishing to scientific and expert meetings and projects. They organized four national conferences in Croatia in the last five years which were attended by VSITE staff members, who published

numerous papers and project results. In addition, VSITE encourages the full-time employees to publish as much as possible, and covers all fees for conferences, accommodation and travel. In addition, there is a requirement for publishing in order to advance in higher teaching grade, as stipulated by the decision on the conditions for the evaluation of teaching and professional activities in the selection process for teaching (the Official Gazette 20/12, 85/13, 4/15). However, the requirements are defined broadly, and VSITE teachers manage to publish the minimal number of required publications, mainly at international conferences organised in Croatia.

VSITE keeps records of publications, but it does not organize them according to scientific areas. However, each of the employees has its own Crosbi link, which provides data on the registered publications in the national bibliography system (also given in Table 4.4 of the analytic supplement to self-analysis). In Table 5.1 in the analytic supplement to the Self-Analysis, data are drawn from the MOZVAG database and are given according to the publication type (books, chapters in books, etc.).

VSITE keeps an extensive list of conferences organised by the College, and provides an exhaustive list of participations of teachers and associates in professional and scientific national conferences. However, the participation in international conferences abroad seems very modest, as VSITE does not provide evidence for it.

VSITE actively promotes the profession by organization of public performances (for example to pupils, encouraging them to enrol in the College), however the Panel did not find evidence of promotion of the achievements abroad. VSITE provides an exhaustive list of examples of popularization of the profession through publishing and public advisory activities which are presented in exhibition 5.2.6 in the Croatian language.

### **Recommendations for improvement**

VSITE teachers and associates need to improve the number of published professional and/or scientific journal publications, as well as increase the number of publications in recognised international conferences.

VSITE should stimulate the growth of high-quality professional and/or scientific publications by awarding or by taking other types of incentives to promote high-quality scientific and technical publications.

Teachers and associates of VSITE should actively promote professional and/or scientific achievements abroad at workshops, seminars, conferences, etc.

### **Quality grade**

Minimum level of quality

## **5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge.**

### **Analysis**

VSITE has very good connections with local stakeholders, which was clearly confirmed by the Panel during the visit. In particular, stakeholders are interested in providing real problems that students may try to solve and use them for their diploma work. In addition, this kind of mutual cooperation sometimes ends with providing a job to the student. Stakeholders seem to be satisfied with the level of knowledge that the students have as they are frequently able to transfer their knowledge to the company by providing solutions to real problems. Furthermore, the market demand for IT professionals offers jobs to students enrolled in their fourth and fifth semester, thus the knowledge transfer happens very early (and in both directions) without the need for a great effort from the VSITE.

VSITE seems to monitor the needs of the local community and contributes occasionally with donations. In particular, VSITE keeps a list of provided donations on several occasions (27 Croduino microcomputers, 24 Raspberry Pi, 11 desktops and monitors, 10 laptops, 3 network racks/closets, also given in Exhibit 5.2.8). Additional list of voluntary work performed for the local community is given in exhibit 1.5.1.

In 2018 VSITE received a scientific IRI project (financed by the EU) as a result of their effort to keep good relationships with the stakeholders. This project can be seen as a result of their planning of their research and scientific activities that would also help in increased participation of students in the real life projects run by VSITE.

However, the site visit did not confirm the eagerness of VSITE to perform their own market analysis in order to improve their research directions in future. Instead, their planning is based on the already performed surveys by the national agency for employment. Although that is not necessarily a drawback, the performance of their own surveys of the market needs may lead to improved tailored research in future. Additionally, the VSITE\_report\_2012\_EN also recommended to VSITE to perform their own market analysis, which seems to be ignored by the HEI.

Due to the high demand of the market for IT professionals VSITE does not require to perform exhaustive activities in order to put in place an efficient support system for research and transfer of knowledge and technologies.

VSITE provides a list of innovations and patents in the last 5 years. In particular, 4 published innovations/patents in the last 5 years (see exhibit 5.2.1 in Croatian language).

In 2015 VSITE organized a student conference at which the main topic were start-up companies and which was attended by different public and private stakeholders. While the conference is a great activity for encouraging the development of start-ups and spin-offs, it has not been organized again.

VSITE provides a list of organized workshops, debates and conferences, public appearances and popularisation of IT and VSITE, however it does not provide a list of professional organizations in which the staff members participate. During the site visit, the VSITE vice dean made the effort to combine such a list and provided three examples of teachers, who are members of the following professional bodies and committees: ASHE committee for natural sciences, Popovača city committee member of the Social Democratic Party, and one teacher is a president of the Croatian-Chinese friendship society for cultural, scientific and economic cooperation.

The cooperation with industry and public sector in the application of knowledge and transfer of technology is performed mainly in two ways: organization of various workshops that aim at improvement of the teaching techniques, and through using companies as a proxy. The latter is implemented by introducing students to companies where students do their final/graduation theses. During the site visit several stakeholders confirmed that their primary motivation to work with the HEI is head hunting. AVL company (200 people approximately) provided employment to up to 5 students in the last 5 years. However, this process is performed informally and stakeholders expressed their wish to formalize the procedure in future.

The only cooperation of VSITE with business incubators in Croatia is with ZIP (in the Croatian language: “Zagrebački inkubator poduzetništva”) with which VSITE had well established cooperation mainly due to the fact that a former VSITE graduate student led the incubator. Since she moved abroad, the cooperation with ZIP stopped and is expected to continue after the leading person comes back. The main aim of ZIP is attracting students.

Finally, patents should be clearly referenced. The provided documentation does not give evidence on where the patents are registered (on a national or EU level).

### **Recommendations for improvement**

VSITE should provide instruments for monitoring the needs of society, local community and labour market in order to provide tailor-made planning of its professional and/or scientific and research activities.



The Panel recommends that VSITE conducts activities to support the future development of start-up companies, possibly through the development of the career centre and improved cooperation with different business incubators in the country.

In particular, VSITE should try to formalise the procedure of transferring knowledge to companies through the organisation of activities that will help both companies and stakeholders to meet and work together.

Patents should be clearly referenced so that it can be easily recognised where they were registered (at national or EU level).

### **Quality grade**

Satisfactory level of quality

**5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context.**

### **Analysis**

VSITE provides a list of awards and recognitions from which it is evident that VSITE staff has received 9 awards in the last five years which acknowledge mainly their professional achievements.

VSITE is a holder of two developmental projects in the last five years as stated in the Self-Analysis (page 99). In addition, VSITE received an IRI project funded by the European Union and implemented by the Croatian government. Also, during 2014 - 2018 VSITE was a member of five projects. Hence the Panel members confirm that VSITE is a holder and member of an adequate number of projects.

The site visit confirmed that VSITE staff usually attends and publishes in the international conferences organised in Croatia. It seemed that the VSITE staff do not have ambition to attend international conferences abroad and believe that the international conferences and workshops in Croatia are good enough for publishing their professional results. The whole list of publications is available on Crosbi (<https://www.bib.irb.hr/pregled/ustanove/297>) from which it is evident that only a few of the VSITE staff have published 3 journal papers in internationally recognised journals. The list also includes journal papers in which VSITE members collaborate and therefore are given in the acknowledgements section.

As stated in the Self-Analysis, and confirmed during the site visit, VSITE teachers and associates are members of professional organizations, in particular reviewers at conferences and workshops organised in Croatia. However, the meeting with the external lectures showed that one lecturer also acts as an editorial member in boards of two internationally recognised journals, which is not evident from the tables 5.4 and 5.5 from the MOZVAG database).

### **Recommendations for improvement**

VSITE may improve the quality of their professional and/or scientific publications by publishing in SCI-indexed journal papers and international conferences abroad.

The VSITE-run projects should be visible at the site. For example, VSITE should hang posters and provide information about currently run projects on their website in order to improve their visibility.

VSITE should make efforts in advertising their projects to students as well as their inclusion in the projects' implementation.

VSITE should update tables 5.4 and 5.5 from the MOZVAG database in order to improve the visibility of the scientific work performed by the employees.

### **Quality grade**

Satisfactory level of quality

## **5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching.**

### **Analysis**

The main equipment that students use during their studies are their laptops. In particular, all VSITE students receive laptops with preinstalled software that they need during the studies. The site visit and meetings with students confirmed that the laptops mainly satisfy the needs of the students. Students may upgrade laptops and have a free maintenance in case of a breakdown. There is a small group of students who are willing to pay additionally to get better laptops, and a small group of students who are already employed and hence have afforded themselves newer and more expensive laptops. To support the evidence that research equipment is used in teaching at undergraduate studies, the HEI staff explained that in 2019 a new IRI project started, financed by EC and implemented by the Croatian government through which a research equipment is

procured. The site visit confirmed that the recently obtained equipment (NVIDIA graphics cards) will also be used for teaching and will be used by students as well.

To support the claim that undergraduate and graduate students are involved in the HEI's projects, VSITE Self-Analysis provides tables with final and graduation theses developed within projects (one thesis in exhibit 5.4.2) and professional and/or scientific papers co-authored by students (four papers stated in exhibit 5.4.3). However, during the meeting with students the Panel could not confirm the current involvement of students in the HEI's projects. None of the present students (2<sup>nd</sup> and 4<sup>th</sup> semester of study) did not state that they are involved in VSITE run projects at the time.

To recognize and reward professional and/or scientific achievements of its employees VSITE keeps a list of awards and recognitions awarded to staff and students at conferences and workshops. The HEI has prepared procedures for awards to their staff and students, but the implementation started in 2018, and the first awards are expected to be given in 2020 because the procedure allows award recognition every two years.

### **Recommendations for improvement**

Better implementation of the awarding procedures to teachers that won projects.

Better involvement of teachers and students in projects run by the HEI.

### **Quality grade**

Minimum level of quality

## **APPENDICES**

**1. Quality assessment summary - tables**

**2. Site visit protocol**

<i>Quality grade by assessment area</i>				
<i>Assessment area</i>	Unsatisfactory level of quality	Minimum level of quality	Satisfactory level of quality	High level of quality
<i>I. Internal quality assurance and the social role of the higher education institution</i>			X	
<i>II. Study programmes</i>			X	
<i>III. Teaching process and student support</i>			X	
<i>IV. Teaching and institutional capacities</i>			X	
<i>V. Professional and/or scientific activity</i>		X		

<i>Quality grade by standard</i>				
<i>I. Internal quality assurance and the social role of the higher education institution</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
1.1. The higher education institution has established a functional internal quality assurance system.			X	
1.2. The higher education institution implements recommendations for quality improvement from previous evaluations.			X	
1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination.				X
1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role).			X	
1.5. The higher education institution understands and encourages the development of its social role.			X	
1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs.		X		

<i>Quality grade by standard</i>				
<i>II. Study programmes</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market.			X	
2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained.			X	
2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers.			X	
2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes.				X
2.5. The higher education institution ensures that ECTS allocation is adequate.		X		
2.6. Student practice is an integral part of the study programmes.			X	

<i>Quality grade by standard</i>				
<i>III. Teaching process and student support</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied.			X	
3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study.			X	
3.3. The higher education institution ensures student-centred learning.			X	
3.4. The higher education institution ensures adequate student support.			X	
3.5. The higher education institution ensures support to students from vulnerable and under-represented groups.				X
3.6. The higher education institution allows students to gain international experience.		X		
3.7. The higher education institution ensures adequate study conditions for foreign students.		X		
3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements.				X
3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations.				X
3.10. The higher education institution is committed to the employability of graduates.			X	



<i>Quality grade by standard</i>				
<i>IV. Teaching and institutional capacities</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
4.1. The higher education institution ensures adequate teaching capacities.				X
4.2. The higher education institution ensures appropriate quality of external associates.			X	
4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures which include the evaluation of excellence			X	
4.4. The higher education institution provides support to teachers in their professional development.			X	
4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity.			X	
4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity.			X	
4.7. The higher education institution rationally manages its financial resources.			X	

<i>Quality grade by standard</i>				
<i>V. Professional and/or scientific activity</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific research.		X		
5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge.			X	
5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context.			X	
5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching.		X		

**Reakreditacija**  
**Visoke škole za informacijske**  
**tehnologije**

**Re-accreditation of the**  
**College for Information Technologies**

**Edukacija Stručnog**  
**povjerenstva**

**Ponedjeljak, 6. svibnja 2019.**

*Mjesto događanja:*

**Training of Panel**  
**members**

**Monday, May 6<sup>th</sup> 2019**

*Venue:*

**Agencija za znanost i visoko obrazovanje**  
**(AZVO)**

**Agency for Science and Higher Education**  
**(ASHE)**

*Donje Svetice 38/V, Zagreb*

	<b>Ponedjeljak, 6. svibnja 2019.</b>	<b>Monday, May 6<sup>th</sup> 2019</b>
<b>10:00 – 10:30</b>	Predstavljanje AZVO; Sustav visokog obrazovanja u Hrvatskoj	Presentation of ASHE; System of higher education in Croatia
<b>10:30 – 11:30</b>	Postupak reakreditacije; Standardi za vrednovanje kvalitete; Pisanje završnog izvješća	Re-accreditation procedure; Standards for the evaluation of quality; Writing the final report
<b>11:30 – 13:00</b>	Priprema povjerenstva za posjet (rasprava o samoanalizi i popratnim dokumentima), 1. dio	Preparation of the expert panel for the site visit (discussion on the Self-analysis and supporting documents), part 1
<b>13:00 – 14:00</b>	<b><i>Ručak</i></b>	<b><i>Lunch</i></b>
<b>14:00 – ....</b>	Priprema povjerenstva za posjet (rasprava o samoanalizi i popratnim dokumentima), 2. dio	Preparation of the expert panel for the site visit (discussion on the Self-evaluation and supporting documents), part 2

**Reakreditacija**  
**Visoke škole za informacijske**  
**tehnologije**

**PROTOKOL POSJETA**  
**Utorak, 7. svibnja 2019**

*Mjesto događanja:*

**VSITE, Klaićeva 7, 10 000 Zagreb**

**Re-accreditation of the**  
**College for Information Technologies**

**VISIT PROTOCOL**  
**Tuesday, May 7<sup>th</sup> 2019**

*Venue:*

**VSITE, Klaićeva 7, 10 000 Zagreb**

	<b>Utorak, 7. svibnja 2019.</b>	<b>Tuesday, May 7<sup>th</sup> 2019</b>
<b>9:00 – 10:00</b>	Sastanak s upravom	Meeting with the Management
<b>10:00 – 10:15</b>	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members (Document analysis)</i>
<b>10:15 – 11:00</b>	Sastanak s radnom grupom za izradu Samoanalize i članovima Povjerenstva za upravljanje kvalitetom	Meeting with the working group that compiled the Self-analysis document and the Committee for quality management
<b>11:00 – 12:00</b>	Sastanak s voditeljima katedri i nastavnicima u stalnom radnom donosu (koji nisu na rukovodećim mjestima)	Meeting with heads of departments and full-time employed teachers (not holding management positions)
<b>12:00 – 12:15</b>	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
<b>12:15 – 13:00</b>	Sastanak s vanjskim predavačima (predstavnici)	Meeting with external lecturers (representatives)
<b>13:00 – 14:30</b>	<i>Radni ručak Stručnog povjerenstva</i>	<i>Working lunch</i>
<b>14:30 – 15:15</b>	<i>Sastanak članova Stručnog povjerenstva (Analiza dokumenata)</i>	<i>Internal meeting of the panel members (Document analysis)</i>
<b>15:15 – 16:00</b>	Sastanak s alumnijima te vanjskim dionicima – predstavnicima strukovnih i profesionalnih udruženja, poslovna zajednica, poslodavci, stručnjaci iz prakse	Meeting with alumni and external stakeholders - representatives of professional organisations, business sector / industry sector, employers, professional experts
<b>16:00 – 16:15</b>	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
<b>16:15 – 17:00</b>	Sastanak sa studentima (otvoren sastanak za sve studente)	Meeting with the students (open meeting for all students)
<b>Povratak u Hotel International / Return to Hotel International</b>		
<b>17:00 – 19:00</b>	<i>Sastanak stručnog povjerenstva, rasprava i priprema za drugi dan posjeta</i>	<i>Meeting of the panel, discussion and preparation for the second day of visit</i>

**Reakreditacija**  
*Visoke škole za informacijske  
tehnologije*

**PROTOKOL POSJETA**  
**Srijeda, 8. svibnja 2019**

*Mjesto događanja:*

**VSITE, Klaićeva 7, 10 000 Zagreb**

**Re-accreditation of the**  
*College for Information Technologies*

**VISIT PROTOCOL**  
**Wednesday, May 8<sup>th</sup> 2019**

*Venue:*

**VSITE, Klaićeva 7, 10 000 Zagreb**

	<b>Srijeda, 8. svibnja 2019.</b>	<b>Wednesday, May 8<sup>th</sup> 2019</b>
<b>9:30 – 10:00</b>	<i>Sastanak članova Stručnog povjerenstva (<b>Analiza dokumenata</b>)</i>	<i>Internal meeting of the panel members (<b>Document analysis</b>)</i>
<b>10:00 – 11:00</b>	<i>Sastanak s prodekanima</i>	<i>Meeting with the vice-deans</i>
<b>11:00 – 11:45</b>	<i>Organizacija dodatnog sastanka o otvorenim pitanjima, <b>prema potrebi</b></i>	<i>Organisation of additional meeting on open questions, <b>if needed</b></i>
<b>11:45 – 13:30</b>	<i>Obilazak visokog učilišta (ured međunarodne suradnje, centar karijera, inovacijsko-razvojni centar, nastavno radilište – <i>posjet Storm Computers</i>, učionice, knjižnica) i prisustvovanje nastavi</i>	<i>Tour of the HEI (Office for international cooperation, Career Centre, Innovation-development centre, teaching working centre – <i>visit to Storm Computers</i>, classrooms, library) and participation in teaching classes</i>
<b>13:30 – 15:00</b>	<i>Radni ručak stručnog povjerenstva</i>	<i>Working lunch</i>
<b>15:00 – 15:15</b>	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
<b>15:15 – 15:30</b>	<i>Završni sastanak s upravom</i>	<i>Exit meeting with the Management</i>
<i>Povratak u Hotel International (prema potrebi) / Return to Hotel International (optional)</i>		
<b>16:00 – 18:00</b>	<i>Pisanje nacрта završnog izvješća</i>	<i>Drafting the final report</i>

**Reakreditacija**  
*Visoke škole za informacijske  
tehnologije*

**Re-accreditation of the**  
*College for Information Technologies*

**PROTOKOL POSJETA**

**Četvrtak, 9. svibnja 2019**

*Mjesto događanja:*

***Hotel International, Miramarska 24***

**VISIT PROTOCOL**

**Thursday, May 9<sup>th</sup> 2019**

*Venue:*

***Hotel International, Miramarska 24***

	<b>Četvrtak, 9. svibnja 2019.</b>	<b>Thursday, May 9<sup>th</sup> 2019</b>
<b>9:30 – 12:30</b>	<i>Pisanje nacрта završnog izvješća</i>	<i>Drafting the final report</i>
<b>12:30 – 13:30</b>	<i>Ručak</i>	<i>Lunch</i>
<b>13:30 – ....</b>	<i>Pisanje nacрта završnog izvješća</i>	<i>Drafting the final report</i>

## SUMMARY

The general conclusion of the Expert Panel is that HEI achieved a *satisfactory level of quality* in assessment areas **I. Internal Quality Assurance and Social Role of the Higher Education Institution, II. Study Programs, III. Teaching processes and student support**, and **IV. Teaching and Institutional Capacities**.

Assessment area **V. Scientific / Artistic Activity** was evaluated as *minimum level of quality*.

Expert Panel's general findings are that HEI has a stable body of experienced teachers with good connections to industry, effective academic information system (SCAD), developed in-house and used to manage nearly all the aspects of the study programmes, and study programmes well-adjusted to market needs and providing nearly full employability. However, HEI needs to improve student and teacher mobility and its involvement in international projects and exchange programmes, and increase the effectiveness of internal quality assurance system, as the visibility of some of its key aspects is currently rather low.